

# *Animal Behavior Management Alliance*



**April 8-13, 2018**  
**San Antonio, TX**

***2018 Annual Conference***

# Welcome!

Welcome to San Antonio! On behalf of everyone who helped plan this conference, we are so excited to see you here. I have lived in San Antonio for the last seventeen years, so please try the food and fun in the area. I can attest to how good it is. You must try the cream corn on the first night. Trust me. The week will be jammed back with so much to learn, but try one night or break to get out and explore the Riverwalk, see the Alamo, go to the Menger Hotel (caution: it's scary), or at least grab a breakfast taco. They are all in walking distance from the hotel and we have maps in your bags to help.

ABMA has a conservation partner every year and part of the registration goes to benefit the conservation organization. I am so proud that our partner this year is Bat Conservation International, which is the caretaker of the true pride of San Antonio, Bracken Cave. This cave is home to the largest aggregation of mammals—over 20 million Mexican free-tailed bats will make this cave their home this summer. You will hear more about this amazing cave and organization Monday morning. A huge thank you to Animals Anonymous for the amazing merchandise reflecting this partnership.

Thank you so much to our hosts, the San Antonio Zoo and SeaWorld San Antonio. We will have great behind the scenes at both facilities so be sure to sign up for these when you check in. I would highly recommend seeing the lions at the zoo and the belugas at SeaWorld.

Thank you to our keynote, Jim Breheny of Bronx Zoo and Wildlife Conservation Society, for being willing to speak to us about opening up the behind the scenes of the zoos and aquariums to let everybody see our passion and dedication to animals; we should all be proud of what we do.

Thank you for two men that are the reason we are here: Gary Wilson and Thad Lacinak. These two men have been leaders in the animal world for decades and helped found ABMA. They will begin our paper and workshop days with the history of the organization as well as their hopes for its future. I cannot wait to be inspired by them once again!

Thank you for being here. We have all walks of life, from college undergrads to many veteran experts in all taxa, who are here this week. We have so much to learn from one another, so I encourage you to get out and meet those around you. Any board member will welcome any suggestions as the week goes, or if you want, help getting introduced to someone. You are in a room with people who support and encourage, so fuel up to get inspired!

Guns Up,  
Tricia Dees  
President, ABMA

# History in the Making: *The Future of Behavior Management and its Role in Conservation*

April 8-13, 2018  
San Antonio, TX

## Conference Hosts



## Disclaimer

One of the core values of the ABMA states that:

*“The sharing of knowledge and new ideas is fundamental to advancing animal behavior management.”*

We do this in many ways, such as through our conferences, publications, and social media. This week you'll be seeing a lot of fascinating and thought-provoking talks, workshops, and presentations. Some you may agree with, others may challenge your perceptions and ideas. And while the content that you see in each presentation reflects the views of the author and does not necessarily represent the feelings of the ABMA or the board of directors, we think that the diversity of subjects and viewpoints represented by our members, at our conferences, in our publications, and via our social media outlets is one of the strengths of this organization. We encourage you to listen to all that you hear this week with an open mind, because you might be surprised by what you learn. Thank you and enjoy the conference!

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# GENERAL INFORMATION

## Badges

Please make sure to wear your badges throughout the conference. These badges are your admission to the various events and programming.

## Behavioral Management Fund

The BMF Committee overlooks the Scholarship/Grant process by developing the criteria for the application, review of the applications, and selection of a recipient. The committee is also responsible for the fundraising and development of the Behavior Management Fund. The proceeds a portion of the silent auction support the Behavioral Management Fund.

## ABMA Travel Scholarship

The purpose of this scholarship is to assist an ABMA member who would otherwise be unable to secure financial support to attend the conference. The Travel Scholarship will help the award recipient by giving them the ability to present their work and it will help the organization by giving ABMA members the opportunity to hear presentations that they would not have otherwise been able to. The Travel Scholarship supports the ABMA Core Value of "Sharing the Knowledge". The Travel Scholarship is made possible by the Behavior Management Fund (BMF) Committee.

### **This year's recipient is:**

*"Utilizing Training to Determine the Energetic Cost of Polar Bear Behaviors at the San Diego Zoo"*

*Becky Wolf*

*San Diego Zoo*

For more Travel Scholarship information or to apply for next year's conference, please visit [www.theabma.org](http://www.theabma.org).

## Conservation Gift

Each year the BMF provides a conservation-related gift to conference delegates. Part of the registration goes to benefit the conservation organization. I am so proud that our partner this year is Bat Conservation International, which is the caretaker of the true pride of San Antonio, Bracken Cave. This cave is home to the largest aggregation of mammals—over 20 million Mexican free-tailed bats will make this cave their home this summer. You will hear more about this amazing cave and organization Monday morning. A huge thank you to Animals Anonymous for the amazing merchandise reflecting this partnership.

<http://www.batcon.org/our-work/regions/usa-canada/protect-mega-populations/bracken-cave>

## **Business Services**

There is a business center located in the hotel.

## **Conference Survey**

Once again this year ABMA is being green and doing the conference surveys online. The results of these surveys help the ABMA to make each conference successful and better suited to the members' needs. Your responses are greatly valued and do ensure the ABMA's future conference programming is suited to the interests of our members. The survey will be emailed to registered delegates at the closing of the conference or accessed by the following link:

<http://survey.constantcontact.com/survey/a07eeqpevi7j8yuqvm3/start>

These surveys are an important component to the assessment of the ABMA, and we thank you for your time in completing them. If you do not receive a conference survey, please contact the Research and Evaluation Committee Chair Person, Clint Lusardi at [clusardi@sandiegozoo.org](mailto:clusardi@sandiegozoo.org)

## **Silent Auction Donations**

Silent auction items can be dropped off at registration.

## Transportation

Super Shuttle and ExecuCar are offering ABMA attendees a 10% discount on airport fares. This fare is only available for online purchases. You can use this [direct link](#) or apply the discount manually when you visit SuperShuttle or ExecuCar. Click on the icon “Airport Rides” on the right hand side of the page and it will take you directly to their reservations site. The coupon code is 2PPLF.



# SCHEDULE AT A GLANCE

## SUNDAY, APRIL 8

8:45am	<b>Bus loading for Pre-Conference Workshop</b>	<i>Hotel Lobby</i>
9:00am – 4:00pm	<b>Pre-Conference Workshop Hose2Habitat</b>	<i>San Antonio Zoo</i>
1:00pm – 5:30pm	<b>Registration</b>	<i>Pavo Real</i>
6:00pm – 9:00pm	<b>Icebreaker at Hemisphere Park</b>	

## MONDAY, APRIL 24

\*\*\*All activities are in the La Villita Ballroom unless otherwise noted\*\*\*

7:00am - 9:00am	<b>Registration</b>	<i>Pavo Real</i>
8:00am–8:20am	<b>Welcome</b>	
8:20am – 9:40am	<b>Keynote Address</b> Jim Breheny, Wildlife Conservation Society	
9:40am – 10:00am	<b>AnimalProfessional.com</b> <b>Break</b>	
10:20am – 12:00pm	<b>Presentations</b>	
12:00pm - 1:30pm	<b>Lunch on your own</b>	
1:30pm – 2:40pm	<b>Presentations</b> <b>Break</b>	
3:10pm – 4:00pm	<b>Presentations</b>	
4:00pm – 5:00pm	<b>Research and Evaluation Workshop</b>	
5:00pm – 7:00pm	<b>Dinner on your own</b>	
7:00pm – 9:00pm	<b>Professional Development Workshop</b>	

## TUESDAY, APRIL 10

8:30am – 9:00am	<b>Registration</b>	<i>Pavo Real</i>
9:00am – 9:30am	<b>Bus Loading</b>	<i>Hotel Lobby</i>
9:30am – 5:00pm	<b>San Antonio Zoo</b>	
5:00pm - 8:00pm	<b>Silent Auction and Poster Night</b>	<i>San Antonio Zoo</i>
8:00pm	<b>Bus Loading</b>	

## WEDNESDAY, APRIL 11

\*\*\*All activities are in the La Villita Ballroom unless otherwise noted\*\*\*

7:30am – 8:00am	<b>Registration</b>	<i>Pavo Real</i>
8:00am – 8:30am	<b>Mini Keynote – Gary Wilson, Moorpark College</b>	
8:30am – 9:40am	<b>Presentations</b> <b>Break</b>	
10:10am – 10:50am	<b>Presentations</b>	
10:50am – 12:00pm	<b>Service Dogs, Inc.</b>	
12:00pm – 1:30pm	<b>Lunch on your own</b>	
1:30pm – 2:40pm	<b>Advanced Training Workshop</b> <b>Break</b>	
3:20pm – 4:20pm	<b>Presentations</b> <b>Break</b>	
4:40pm – 5:20pm	<b>Presentations</b>	
5:20pm – 6:20pm	<b>Committee Meetings</b>	
6:30pm – 7:30pm	<b>Program Council Meeting</b>	<i>Hospitality Suite</i>

**THURSDAY, APRIL 12**

8:30am – 9:00am **Registration**  
9:00 am – 9:30am **Bus Loading**  
9:30am – 6:00pm **SeaWorld San Antonio**  
6:00pm – 6:30pm **Bus Loading**  
7:00pm **Dinner on your own or FreeTail Brewing**

*Pavo Real  
Hotel Lobby*

**FRIDAY, APRIL 13**

\*\*\*All activities are in the La Villita Ballroom unless otherwise noted\*\*\*

7:30am – 8:00am **Registration**  
8:00am – 8:30am **Mini Keynote – Thad Lacinak, Precision Behavior**  
8:30am – 9:10am **Presentations**  
9:10am – 10:10am **Research and Evaluation Workshop Follow Up**  
**Break**  
10:40am – 12:00pm **Presentations**  
12:00pm – 1:00pm **Lunch on your own**  
1:00pm – 2:40pm **Presentations**  
**Break**  
3:10pm – 4:10pm **Presentations**  
4:10pm – 5:00pm **Training 101 Panel**  
5:00pm – 5:20pm **2018 Conference Announcement**  
6:30pm – 7:00pm **Cocktails**  
7:00pm - 10:00pm **Banquet**

*Pavo Real*

*La Villita Foyer  
La Villita Ballroom*



# DAILY SCHEDULE

## Sunday, April 8

8:45am **Bus loading for Pre-Conference Workshop** *Hotel Lobby*

9:00am – 4:00pm **Pre-Conference Workshop Hose2Habit** *San Antonio Zoo*  
Hose2Habitat will be teaching 3 different session that attendees will get to choose from; aquatic stitch mat, cubes, and browsers. Lunch will be provided.

1:00pm – 5:30pm **Registration** *Pavo Real*

6:00pm – 9:00pm **Icebreaker at Hemisphere Park**  
Hemisphere Park is located across the street from the hotel.



# DAILY SCHEDULE

# Monday, April 9

\*\*\*All activities are in the La Villita Ballroom unless otherwise noted\*\*\*

7:00am - 9:00am      **Registration**

*Pavo Real*

8:00am-8:20am      **Welcome**

8:20am – 9:40am      **Keynote Address**

## **Jim Breheny, Executive Vice President, Wildlife Conservation Society**

We are excited to welcome Jim Breheny as our Keynote Speaker at the 2018 ABMA Conference in San Antonio. If you don't know who he is, check out Animal Planet's show, The Zoo! He is helping to promote people learning more about what zoos are really all about including being leaders in wildlife conservation and education.

As Executive Vice President and General Director, Zoos and Aquarium and Director of the Bronx Zoo, Jim Breheny is responsible for the operation and management of the Bronx Zoo, the New York Aquarium, the Central Park, Prospect Park and Queens Zoos. Collectively, the zoos and aquarium house over 14,000 animals representing 1,500 species. Jim earned a B.S. in Biology from Manhattan College and an M.S. in Biology from Fordham University. He has been with WCS for 44 years, 36 years as a full-time staff member. A former Curatorial Science Fellow and Curator, he was named General Curator in 2004, Director of the Bronx Zoo in 2005 and was appointed General Director in 2011. Jim was an adjunct professor of Biology at Manhattan College from 1988 - 2005.

Jim is a Professional Fellow in the Association of Zoos and Aquariums (AZA) and on its Board of Directors, where he is currently Chair-elect of the AZA. Jim served on the AZA's Membership and Professional Development Committees, the Field Conservation Committee (FCC) and as Board Liaison to the Wildlife Conservation Management Committee (WCMC) and Safety Committee. He is currently liaison to the AZA Accreditation Commission. Jim is a member of the Zoo Advisory Board of the Zoological Society of London (ZSL), on the Board of the Turtle Survival Alliance (TSA) and the Giant Panda Conservation Foundation (GPCF) and is a past board member of the International Iguana Foundation (IIF) and the Turtle Conservancy (TC) where he still serves as an advisor.

9:40am – 10:00am      **AnimalProfessional.com**

AnimalProfessional.com is pleased to be Celebrating our 10<sup>th</sup> Anniversary!

As ABMA is a founding member organization, we are grateful for this long-standing partnership, and are very pleased to be attending our 8<sup>th</sup> consecutive conference. We believe that the presentations and knowledge shared here in San Antonio should live on long after the conference ends. ABMA shared this belief back in 2011 and invited us to record and archive one of our first conferences. Today as an ABMA member, you can go on our website and see that first conference in Denver or revisit a presentation that you see here this week! Our hope is that our website will continue to grow in content and be a valuable resource to all Animal Professionals. Consider inviting us to your next animal conference and help us grow our library! Email us at: [info@animalprofessional.com](mailto:info@animalprofessional.com) for more information.

We hope you have a great conference week!

AnimalProfessional.com

**Break**

10:30am – 12:00pm      **Presentations**

**AN APPLE A DAY KEEPS THE DOCTOR AWAY: TRAINING A HERD OF BISON FOR MEDICAL CARE**

Tiffany Laracuentre, Salato Wildlife Education Center, Kentucky Department of Fish and Wildlife Resources

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Salato Wildlife Education Center is the only wildlife center run by the Kentucky Department of Fish and Wildlife Resources. Staff care for a wide range of Kentucky native wildlife from snakes and fish, to raptors, bears and elk. One prominent and popular animal is the herd of 1.3 American Bison (*Bison bison*). Historically, this herd is very skittish when trying to apply fly spray, ivermectin or any medical care. This resulted in at least one bison developing hot spots that were hard to treat every summer. Starting in February 2017, we created a training program for the bison. Now all four bison willingly come up to a station for training fly spray and ivermectin; in addition, two of the bison are trained for injections. Summer of 2017 is the first year that none of the bison developed hot spots. We have also been able to train the bison for the public and use the training as a way to help educate. This presentation/paper will outline the steps taken from the beginning to where we are now. Moreover, we will go over all the herd and individual challenges along the way.

### **TRAINING KILLER WHALES (*ORCINUS ORCA*) FOR BEHAVIORAL AUDIOGRAMS**

Doug Acton, SeaWorld San Antonio

The widespread distribution of killer whales (*Orcinus orca*) makes them particularly susceptible to the negative impacts from human sourced noise pollution, but previous audiometric data on this species was limited. Eight killer whales housed at SeaWorld San Antonio and SeaWorld San Diego were conditioned to respond to underwater tones to determine their auditory thresholds from 100 Hz to 160 kHz under precise scientific conditions. Although each whale performed over 1500 trials for the study, motivation and behavioral consistency was maintained through the use of variety in reinforcement delivered in variable ratios. The data collected on audio thresholds has significant conservation value in empowering legislators to protect wild orcas from noise pollution.

### **THE QUARANTINE EXPERIENCE**

Nicki Boyd, San Diego Zoo

Quarantine can be one of the most stressful times in an animal's life. As we constantly look for ways to improve welfare of animals in managed care, quarantine should be no exception. With thoughtful considerations of risk assessment, behavioral history, social structure, and enrichment experiences, animal care staff can create behavioral goals and work closely with veterinary and hospital keeper staff to reduce any unnecessary testing or putting them in a completely sterile and isolated environment for a minimum of 30 days. With access to documents like Animal Data Transfer forms and Enrichment Data Transfer forms ahead of a shipment a thoughtful behavioral plan can be formulated. Pre-shipment testing can often preclude the need for lengthy quarantine times and repeat testing. Some facilities are even moving animals straight into their new habitats, reducing quarantine time or timing quarantine with con-specifics or bringing a buddy up for social species like birds, hoofstock and primates. The Association of Zoos and Aquarium (AZA) Behavior Advisory Group (BAG) is coming up with best practices and behavioral and welfare consideration that will be shared in this paper. As we continue to strive for the best welfare for animals in our care quarantine does not have to be that stressful, isolated, sterile process we have followed for so many years. With animal care and veterinary care working closely together this is one more area that can be a priority for welfare improvement for animals in managed care.

### **TRAINING VOLUNTARY BLOOD DRAW WITH A DIABETIC WHITE-CHEEKED GIBBON (*Nomascus leucogenys*)**

Sara E. Gonzalez, WCS, Bronx Zoo

The Bronx Zoo houses a pair of white-cheeked gibbons (*Nomascus leucogenys*). In 2014, our male gibbon, Milton, was diagnosed with diabetes. The first attempt to manage Milton's diabetes involved dietary changes and oral medication; however, these treatments were unable to effectively control his diabetes. Because Milton had a strong injection training history, the decision was made to start daily insulin injections. Insulin treatment required close monitoring of Milton's blood glucose levels which was initially

achieved by training Milton for both urine testing and blood glucose testing with a glucometer. Although both of these methods provide useful information about Milton's glucose levels, a larger blood sample would allow veterinarians to evaluate changes in his glucose levels over time and modify his treatment plan accordingly. We began training Milton for voluntarily blood draw in April 2015, and had our first successful blood draw in May 2016. This presentation will outline the steps we took to train the blood draw behavior and the challenges we faced along the way. One of the major challenges was designing an appropriate blood sleeve for Milton. Not only did the sleeve need to accommodate Milton's long arm and fingers, it had to be modified multiple times in order to position Milton's arm in a way that would allow easier access to his vein. Training this complex behavior has allowed us to obtain regular blood samples, which has enabled us to better monitor Milton's health, evaluate the efficacy of his treatment, and improve his overall quality of life.

12:00pm - 1:30pm **Lunch on your own**

1:30pm – 2:40pm **Presentations**

### **DON'T SHOOT THE ZEBRA-PONY! USING AN INTRIGUING CASE STUDY TO EDUCATE AND PROMOTE THE USE OF EVIDENCE BASED BEHAVIOR MANAGEMENT WITH DOMESTIC EQUINES**

Megan Phillips and Jody Ambrose, Train with Trust

The practical application and scientific understanding of animal training and behavior management has evolved tremendously in the past 20-30 years. Much of the development of applied techniques and foundational philosophies, has occurred in the contexts of zoos and aquariums as well as dog training and behavior modification. Unfortunately, advancement of this approach has been greatly limited in the world of horse training and management. Many routine interactions with horses rely on force, positive punishment and chemical restraint. There is a lack of standardized education for those entering into horse care. While there aren't any universally accepted standards for breeding, keeping, transporting and training horses, a preponderance of unsubstantiated pseudoscience and deeply rooted traditions are the main influence behind what continuity does exist. The consequences for horses have been compromised welfare, undesirable and/or dangerous behavior, poor performance, abuse and a high rate of surrender to rescue and slaughter. A clear opportunity exists for behavioral science and applied behavior management techniques to be disseminated to those involved in horse training and care. These range from owners, veterinarians and trainers to farriers, stable-owners and workers. Train with Trust has had an opportunity to bring greater awareness to this cause. In partnership with Equitopia, a non-profit dedicated to increasing evidence-based horse care education, we have been able to highlight our work with a zebra-pony hybrid whose story typifies many of the difficulties seen in the horse world. Her story may also provide one possible road-map for an improved future in horse behavior management.

### **USING OPERANT CONDITIONING TO TREAT FOR COMPLIMENTARY ALTERNATIVE THERAPY IN CARNIVORES**

Katie Buckley-Jones, Houston Zoo, Inc.

The Houston Zoo veterinary and animal care staff has been working closely with a consulting complementary therapy veterinarian to provide the collection with a variety of treatments ranging from chiropractic adjustments, laser acupuncture, and therapeutic stretches in conjunction with traditional Western medicine. In the carnivore department, operant conditioning and positive reinforcement techniques have been utilized to more completely care for some of the medical cases. The complimentary therapy veterinarian has prescribed a variety of stretches for the animals, so it has been the keeper's challenge to train them to participate in their own medical care. For example, there is a cheetah who is working on his rear leg strength, a leopard with nerve issues who does stretches, a bear who was trained for multiple stretches, and a few cats who have been conditioned to receive laser acupuncture alleviate discomfort associated with arthritis. The leopard has shown significant improvement with his nerve damage due to his stretching regime and acupuncture. The geriatric Andean bear also showed mobility improvement when she began her stretching. One side effect that has been observed is some animals appear to enjoy

the laser acupuncture so much, the treatment itself becomes the reinforcement and no food reinforcement is needed. The ability to train for complementary medicinal treatments has improved the comfort and welfare for many of the Houston Zoo's carnivores and shows promise for other species as well.

### **W.T.F (WHAT'S THE FUNCTION): HOW YOUR L.R.S COULD BE MAINTAINING ABERRANT BEHAVIORS**

Sandy McPadden, Sandy McPadden Animal Behavior Consulting

In the field of human behavior modification, behavior analysts are required by their credentialing board to conduct assessments prior to recommending or initiating behavior modification procedures. In the field of animal behavior modification, this applied methodology is not as common, especially in attempts to decrease aberrant behavior. By applying similar human behavior assessments and intervention techniques to the field of animal behavior, animal behavior management teams can draw upon decades of applied research to achieve groundbreaking advances in captive animal welfare. The future of animal behavior management is to systematically identify the function of a behavior before ever developing a behavioral intervention plan. By doing this we will energize animal behavior management teams to take advantage of empirically validated protocols thus adhering to some of the very same ethical standards mandated for human behavioral interventions. This presentation discusses how first identifying the function of an aberrant behavior and then utilizing that same function to reinforce an alternative target behavior allows for a more effective and ethical intervention program. Furthermore, the function of Escape and its' relationship to the commonly utilized technique, Least Reinforcing Scenario (LRS), will be deeply examined. Lastly, how employing protocols used in human behavior modification and holding animal behavior management teams to those same ethical standards can benefit guest perception of animal conservation programs.

### **APPROXIMATING A CULTURE: INNOVATIVE TRAINING CONCEPTS FOR ZOO KNOXVILLE'S ELEPHANTS**

Becca Wyatt, Zoo Knoxville

Zoo Knoxville's elephant program has redefined its behavior management program and reshaped the culture in which the staff and elephants work with one another. The focus of the behavior program has shifted to a more process orientation, from what was previously a goal orientation. This has enabled us to better customize behavior programs for each individual elephant. The "study of one" allows for innovative approaches such as two-way communication between trainer and elephant, elephant choice in how training progresses, and individualized trainer response tailored to the needs of each elephant. We have found that these strategies have increased trust between elephant and trainer, which has improved our ability to work on the more advanced and vulnerable husbandry behaviors. The shift in culture has generated more confident elephants and more confident staff. As a result, the welfare of our elephants has improved. One of our missions as a zoo is to help draw a connection between animals and guests to promote a commitment to conservation. Our program can better do this with training sessions on exhibit where our elephants are eager to participate and encourage a sense of wonder from our guests. Our positive culture allows the public to view physiological and emotionally healthy elephants. This inspires guests to understand and support conservation more effectively.

#### **Break**

3:15pm – 4:00pm

#### **Presentations**

### **CHANGE IN THE FLIGHT PLAN: GIVING RESCUED MACAWS A CHOICE**

Emily Yunker, Columbus Zoo and Aquarium

In September 2017 the Columbus Zoo and Aquarium was made aware of an animal hoarding situation in Enterprise, Alabama. During a confiscation of over 60 dogs a wildlife officer found sixteen macaws in cages wrapped in tarps. A local sanctuary was temporarily housing the macaws but being a non-profit native wildlife rescue, they did not have the ability to care for all of the birds long term. The Columbus Zoo agreed to take all sixteen macaws and assume responsibility for their welfare and placement. With little to no information available on any of their physical states or history, the birds had to be restrained

for health exams by the zoo's vet staff. Many medical issues were uncovered, including a young hyacinth macaw with old fractures in both legs, a scarlet macaw with a coelomic hernia likely from over breeding, and a scarlet macaw with a ruptured air sac. Through building trusting relationships with positive reinforcement training we were not only able to improve their quality of life, but give them a choice to participate in their own healthcare. Voluntary radiographs, ingestion of barium, and removal of air from under the skin are just the beginning stages of creating stress-free and healthful future for these birds. Despite the fact that all of these macaws came from the same situation, they remain different individuals. Therefore, training was modified to accommodate each animal's needs, making this truly a study of one and laying the framework for future rescues and conservation efforts.

## **PROVIDING CHOICE AND CONTROL FOR AMBASSADOR ANIMALS BY TRAINING COMMUNICATIVE BEHAVIORS**

Kristen Frizzell, National Aquarium

Providing animals with choice and control has become a major focus in managed care. These concepts are accepted as primary reinforcers and animal care professionals believe that animals should not feel trapped in a situation or forced to do something. The Animal Programs department at the National Aquarium has implemented such practices and is now working on the next level by training animals to communicate their preferences. Using a similar approach to the Norwegian horse blanket study, a non-flighted adult female hyacinth macaw (*Anodorhynchus hyacinthinus*) was taught to ring a doorbell on her perch in order to communicate when she is ready to return to her enclosure. By utilizing successive approximation, some creative engineering, and a fantastic team, she learned the behavior within a few months. We've learned a great deal about the macaw's preferences since training this doorbell behavior and also learned that some of our assumptions were wrong. Future plans include training her to ring different bells to communicate other requests and by continuing to work on other choice and control opportunities with all of our ambassador animals. We hope this work inspires other facilities to develop new and exciting ways to teach animals to communicate their preferences. You never know what you'll learn about your animals until you give them the opportunity to tell you.

### **4:00pm – 5:00pm      Research & Evaluation Workshop: Observing to Learn - Learning to Observe Dr. Heather Hill, St. Mary's University and Dr. Rachel Walker, University of the Incarnate Word**

Dr. Heather Hill completed her bachelor's degree in Psychology at Texas A&M University, College Station with a minor in Oceanography in 1996. She earned her master's (2000) and doctoral (2003) degrees from the University of Southern Mississippi under the mentorship of Dr. Stan Kuczaj. Dr. Hill spent 3 years working as a research assistant at the Navy Marine Mammal Program in San Diego, CA. Dr. Hill has been teaching psychology at St. Mary's University, San Antonio, TX since 2007 and is an Associate Professor. Dr. Hill spent the first 10 years of her marine mammal career conducting research on the mother-calf relationship and social development of bottlenose dolphins in human care. She also studied mirror self-recognition and mirror use in dolphins and sea lions. Most recently, she has been studying the social behavior and cognitive abilities of belugas, killer whales, Pacific white-sided dolphins, bottlenose dolphins, and sea lions in human care through collaborations with SeaWorld San Antonio, Georgia Aquarium, Dr. Deirdre Yeater and Mystic Aquarium, Dr. Michael Noonan and Marineland, Dr. Kathleen Dudzinski and Dolphin Communication Project, the Houston Zoo, and several other facilities and collaborators.

Dr. Rachel Walker completed her bachelor's degree (1999) and master's degree in Biology and her doctoral degree (2005) in Experimental Psychology from The University of Southern Mississippi. Dr. Walker spent 10 years working at Charleston Southern University in which she was a Full Professor and the Chair of the Department of Behavioral Sciences. For the past three years she has been teaching at University of the Incarnate Word, San Antonio as an Associate Professor. Dr. Walker spent seven years conducting research on bottlenose dolphins in the wild and under professional care. She also focused on the potential impact of anthropogenic noise on sperm whales in the Gulf of Mexico in collaboration with The

University of Southern Mississippi (USM), University of New Orleans (UNO), Naval Research Laboratory at Stennis Space Center (NRL-SCC), and the Naval Oceanographic office (NAVOCEANO). Most recently, Dr. Walker is examining patterns of behavior in a variety of mammals (e.g., beluga whales, bottlenose dolphins, elephants) under professional care. She has also conducted research in the areas of social-cognitive psychology and technology as well as scholarship of teaching and learning. Her teaching and research experience, with Biology and Psychology, has provided her with the skills to effectively share the knowledge and impact of research in the field of behavior and cognition.

**Workshop Abstract:** Whether animals or people, behavior provides many insights with clear applications across a broad range of contexts. Behavior can inform humans about animal health, animal social tendencies, animal enrichment, animal food/habitat preferences, and overall animal well-being. Behavior can inform humans about humans watching animals, including what to attend to, whether they attend to the animals, how long they attend or stay at the habitat. The primary purpose of this multi-day workshop is to provide attendees training on and practice with several data collection techniques that can be used to evaluate animal behavior in both spontaneous and enrichment-provided settings. The program will include a presentation on different data collection techniques and the types of questions each technique can address. Prior to the presentation, a survey will be completed by attendees to indicate which techniques they are accustomed to and have utilized at their facilities. The data from this survey will be summarized to provide perspective to the attendees. Attendees will have coordinated opportunities to practice during the training portion of the workshop. Following the training session, attendees will then participate in data collection at SeaWorld San Antonio and San Antonio Zoo. Each participant will be expected to spend 20-min at one location each day collecting data. The 20-min period will be split into two 10-min data collection periods in which attendees will actively collect data using two different techniques during that collection. The techniques will be randomized so that every person has a chance to practice three different techniques across the two facilities. Each facility has 4-6 habitats that have been pre-selected for observations across the day. Some observations will involve natural, spontaneous behavior of the animals, some will occur during feeding times by the public (if applicable), some will be during feeding times by the facility staff members, some will involve different forms of enrichment (predetermined) provided by the facility, and some will involve watching human guests while at the exhibit. Attendees will be asked to sign up for one 20-min slot at SeaWorld and one 20-min slot at San Antonio Zoo. The data will be collected on paper and provided to each attendee at the observation location. Attendees will return the datasheets to a research assistant provided by the workshop leaders. The data will be entered by the research assistants and summarized by the workshop leaders during the final portion of the workshop. The data collected will hopefully inform the facilities of any behavioral patterns observed during the day as well as demonstrate the usefulness of different types of data collection depending on the question of interest. The final portion of this multi-day workshop will allow attendees to share their experiences with the different techniques utilized across the two facilities. A post-workshop survey will be conducted and the results will be summarized and made available to ABMA at a later time. Ultimately, we hope this workshop will illustrate the collaborative nature of research and provide attendees with ideas about facilitating similar efforts with local universities.

### ***Dinner on your Own***

#### **7:00pm – 9:00pm      Professional Development Workshop**

Get your job inquiry questions ready...What do you wear to an interview? Are internships resume worthy? What is the best way to follow up after applying? What type of end of interview questions are appropriate? A panel of industry professionals will be ready to answer anything you are ready to ask. Afterward there will be times to set up resume reviews. There is something for everyone, whether you're just getting into the field or are interested in moving onward or upward, this workshop is for YOU!

8:30am – 9:00am	<b>Registration</b>	<i>Pavo Real</i>
9:00am – 9:30am	<b>Bus Loading</b>	<i>Hotel Lobby</i>
9:30am – 5:00pm	<b>San Antonio Zoo</b>	
5:00pm - 8:00pm	<b>Silent Auction and Poster Night</b>	

Did you see a poster and want to know more information about it? Now's your chance to get to speak with the poster presenters.

## **BRINGING THE PELICANS TO THE PEOPLE: PROVIDING A PERSONAL PISCIVORE PRESENTATION**

Traci Schneekloth, San Antonio Zoo

Upon receiving charge of an established flock of American White Pelicans from various backgrounds, it became clear that better husbandry could be provided if the keepers were able to get closer to the birds. The ability to perform visual daily inspections of each bird's body condition was the initial goal of the training program. After the flock was conditioned to consistently come toward the keeper on land for twice daily feedings, a new goal was envisioned. The opportunity to provide guests with an educational animal encounter was an easy advancement to the original training goal. By providing this experience we are able to educate visitors on bird anatomy, behavior and conservation efforts, both in the wild and in zoos. The pelican presentation also helps guests better understand the variety, importance and need for birds, locally and globally. The addition of new rehabilitated pelicans, American White and Brown, has shown that the integration of these individuals did not inhibit the flock's training, along with demonstrating that new birds were able to quickly acclimate to the daily routine. In the future, we hope to shape this training program into assisting with stress-free medical exams and routine medication administration.

## **ADAPTING TO WORK WITH A GIRAFFE WHO IS ADVERSE TO TOUCH**

Amber Howard, Zoo Knoxville

Training giraffe for voluntary hoof trims is a relatively new undertaking at Zoo Knoxville. Trainers have begun working with our 14 year old male, Rothschild giraffe, Jumbe. Historically, Jumbe has had little tolerance for physical contact, so a personalized program had to be developed to allow staff to trim his hoof. We started with Jumbe stationing at firehose straps and him willingly placing his hoof on a block. The next step included basic approximations to physically touch him. After a break from training, regression occurred in the touch and resulted in Jumbe kicking out at trainers. Jumbe's confidence, trust, and motivation had dwindled. It was then that changes were implemented to provide a better training environment. Exhibit modification eliminated the need for firehose straps, providing safety and comfort for trainers and giraffe. Next, staff created a way to give Jumbe choices and control over the session. Through new approximations, Jumbe gets to decide if he wants to touch his trainer by letting him place his leg into his trainer's hand, instead of trainers approaching him. As we have adapted to Jumbe's needs, we have seen a more confident animal allowing increasing contact as we move forward with his training.

## **ENRICHING PALMS: HOW ENRICHMENT HELP LEAD TO THE BREEDING OF PALM COCKATOOS**

Angela Martell, San Antonio Zoo

Animal Care Specialists give enrichment to captive animals for many reasons. A variety of enrichment, from food to environmental, can help meet the ultimate goal to have both physically and mentally healthy animals, in a comfortable and stress free environment. Enrichment, combined with a proper set up, can also have the added benefit of encouraging breeding behaviors and to the successful breeding of notoriously difficult species in captivity, like Palm Cockatoos. With the implementation of species specific enrichment and behavioral observations, San Antonio Zoo had their first successful breeding of Palm Cockatoos in 2017.

## **INCORPORATING CONSERVATION AND GUEST INTERACTION INTO EVERYDAY ANIMAL TRAINING**

Basia Dann; Courtney Rogers, Cheyenne Mountain Zoo

Cheyenne Mountain Zoo's mission statement encourages, "connecting people with wildlife and wild places through experiences that inspire action." Every person has the potential to become our partner in conserving the planet we all share. The animals in our care serve an important role as ambassadors for their wild counterparts. We will discuss how zookeepers can enable animals and guests to make these connections in ways that leave lasting impressions and inspire conservation action. Many guests come to keeper talks, or pass by animal training sessions and vet procedures. These are opportunities to use "defining moments" to create a dialogue with zoo guests to forge that partnership. "Defining moments" are interactions initiated by zoo employees which leave the guest with an enduring and highly influential memory. By inviting guests to help us train animal behaviors, as well as participate in our keeper talks, or even help during veterinary procedures we share the responsibility of the care of the animals with our guests, making history by empowering them to engage in future care. Guests can feel this empowerment by translating a conservation message from a bear, providing "prey" for a leopard to drag and cache, or holding a flashlight up to a bear mouth for a dental check. These quick moments give us a chance to add valuable members to our conservation team. These tactics can be used by any zoological facility to increase effectiveness of their conservation programs, connect people to wildlife, and even help keepers save time and increase impact.

## **COMBATTING INACTIVITY IN ELEPHANTS AT THE SAN ANTONIO ZOO**

Katherine Wofford; Gold Darr Hood, San Antonio Zoo

Indian elephants in the wild spend a majority of their day searching for and consuming food. This endeavor takes about 19 hours of their day and inspires them to cover up to 125 square miles in their search. In captivity, however, elephants tend to have much easier access to food, decreasing the time and effort they spend on eating. Musculoskeletal disorders caused by inactivity have led to the deaths of many elephants in captivity. To combat inactivity with the elephants in the San Antonio Zoo, we have developed a "food mobile" – the "Foobil" – to be installed in the Indian Elephant habitat in the San Antonio Zoo. The Foobil was designed to be a feeder, but also to be a challenge to the elephants as they eat. The elephants are required to interact with the device to get food from it. When installed and properly maintained, the elephants should repeatedly interact with the Foobil throughout the day, increasing the amount of time they spend eating. If the device works as intended, there will be a significant increase in the time the elephants spend eating as well as an increase in their physical activity. These results are impactful because elephants' need for enrichment is increasingly urgent as they age, and the success of this study would not only improve the overall wellbeing of the elephants at the San Antonio Zoo, but may contribute to successful future enrichment efforts in other zoos.

## **THE USE OF STRING ENRICHMENT TO REDUCE FEATHER PLUCKING**

Emily J. Kinsey and Gary Fortier, Delaware Valley University

Delaware Valley University houses 24 chickens (bantam Rhode Island Reds) for use in teaching and research. The animals are housed in groups of 12 in two large, indoor kennels. In fall 2016 these animals began to exhibit stereotypical feather plucking. The chickens were already receiving enrichment to reduce plucking but additional string enrichment was created to prevent the plucking behavior from increasing and to reverse some of the damage caused by prior plucking. The string enrichment created was simple and inexpensive to make. The strings were made of polypropylene twine 0.3 cm wide and 16 cm in length, tied in three bunches of eight strings each. This device was placed in the cage four days a week for three hours a day for a duration of eight weeks. Each week the chickens had their bald areas measured and they were observed for thirty minutes while counting number of aggressive pecks. The experimental group that received the string enrichment experienced a decrease in aggression accompanied by feather regrowth in their bald areas; the control group maintained a constant rate of aggression. The new enrichment increased the welfare of the birds; furthermore, we observed that the string device remained effective over time. The strings continued to elicit pecks, and reduce feather plucking, for the duration of the study (eight weeks). The new string enrichment is both simple and sanitary; the universi-

ty now integrates this alternative into the existing enrichment protocols.

### **A SHIFTY PAST: TRAINING A SUCCESSFUL SHIFTING PROGRAM FOR A WHITE-CHEEKED GIBBON FAMILY GROUP USING OPERANT CONDITIONING**

Jaimie Howard, San Antonio Zoo

The white cheeked gibbon group at the San Antonio Zoo has presented multiple issues with shifting into holdings. In order to safely access the enclosure, shifting the gibbons into an indoor holding area became a priority. Initially, the primary focus was with the adult male since Animal Care staff could not enter the exhibit with him; whereas Animal Care staff could work free contact with the adult female and offspring in teams of two. Early on when there was success with the male, the team began working with the female and offspring (either one or two at any given time) using the same method. However, this introduced new challenges throughout the process including turnover rate amongst employees, changing and evolving group dynamics within the gibbon family group, births of additional off-spring, and outdated holding areas. The shifting process is still ongoing, but has had many successful highlights of consistent shifting from the whole family group and bringing in the group for extended amount of time for exhibit renovations.

### **OTTERLY UNIQUE: THE PARADOX OF OUR OTTER PAIR**

Meredith Swortwood, The Columbus Zoo and Aquarium

For animal lovers, there are favorite creatures that trigger instant reactions. Hearts swell, pupils dilate, and gasps of excitement release as smartphones emerge to document. For some, otters induce this strong reaction with their cute antics. The Asian Small-Clawed otter is no exception when it comes to adorable. While our zoo exhibits this species, our Animal Programs department houses two adult males, Yin and Yang, who are a part of an ambassador collection. From the beginning, Yang showed comfortable behaviors during educational programming. Alternatively, Yin showed signs of hesitation in areas such as being held and coming out of his crate. We constantly compared the two and found ourselves puzzled when Yin's behavior did not meet our expectations. We had set the same criteria for both individuals based on one's success. Yin's outreach participation decreased and caused us to reevaluate our otter routine to ensure the future success of both as program animals. This paper will outline Yin's extensive training plan and his slow introduction back into his role as an ambassador. From new behaviors such as voluntarily climbing in and out of an arm "chute," we created our own criteria that coincided with Yin's. Yin and Yang have truly shown their importance as conservation tools to engage the public and start meaningful conversations to inspire action. Otters' natural behaviors are a draw to everyone they meet. When Yin vocalizes with charming squeaks or grooms his belly with his hands, he unknowingly seduces the public with cuteness.

### **WARTHOGS, HOW SMART ARE THEY**

Kim Hanley, San Diego Zoo Safari Park

How smart is a Warthog? Well let me show you with pictures! The San Diego Zoo Safari Park's Behavior Department has a diverse group of Animal Ambassadors. One of those animals include a Warthog who has been trained to participate, voluntarily, in all of his husbandry medical procedures.

All through positive reinforcement training, Bubba, the warthog, participates in medical and daily care husbandry training. With all the training, it reduces the stress and the need for anesthesia for simple procedures like vaccines and blood draws. All of this has been done working cooperatively with the veterinary technician staff. We are also able to trim his tusks and hooves.

On my poster I will show, with pictures and descriptions, how the trainers work with Bubba to accept all of these procedures with him fully awake and alert to what is going on.

8:00pm

**Return to Hotel**

\*\*\*All activities are in the La Villita Ballroom unless otherwise noted\*\*\*

7:30am – 8:00am **Registration**

*Pavo Real*

8:00am – 8:30am **Mini Keynote: Gary Wilson, Senior Professor**

**Exotic Animal Training and Management Program**

**Moorpark College**

Gary was hired by Moorpark College in 1985 to take over as program coordinator from retiring EATM founder William Brisby. He did the job of overseeing the program, keeping the curriculum up-to-date, and managing the college's Exotic Animal Compound. Starting in 1990, Gary managed the operation of America's Teaching Zoo, the college's on-campus animal facility, which he helped design and build. In 2001, Gary returned to teaching full-time. Over his career, Gary has taught many of the courses offered by the EATM program but his favorites are Animal Diversity, Animal Behavior, and Animal Training. As the animal training professor, he has had the opportunity to work with a wide range of animals including monkeys, camels, big cats, large reptiles, and birds of prey.

Gary graduated from the EATM program in 1977 and then worked as a contractor to the US Navy, training bottlenose dolphins, sea lions, and belugas. In 1980, he returned to school to earn a B.A. in environmental and evolutionary biology (1982) and an M.A. in biological sciences (1985), both at UC Santa Barbara. He worked briefly as a relief keeper at the Santa Barbara Zoological Gardens.

From 1998 to 2000, Gary helped create the Animal Behavior Management Alliance and then served on its board of directors as the chief financial officer. Since 2003, he has been a member of the Director's Advisory Committee on Humane Care and Treatment of Wild Animals for the California Department of Fish and Wildlife. Gary contributed two chapters to *Zookeeping: An Introduction to the Science and Technology*, published in 2013. In 2015, he was given the Hal Markowitz Wellness Award from the San Francisco Zoological Society and named the Distinguished Faculty Chair at Moorpark College for the 2015-2016 academic year.

## **Break**

8:30am – 9:20am **Presentations**

### **GROWING UP OTTER**

Bri Cooper, Downtown Aquarium Denver

The Downtown Aquarium in Denver, Colorado acquired three female North American river otter pups. Due to their backgrounds, staff chose to train them as ambassador animals. This paper will discuss the various types of training sessions the otters participate in on a daily basis, including: off leash free contact in an enclosed space, off leash free contact in a semi-enclosed space, on leash walks in public and enclosed spaces, and one on one guest interactions (a.k.a. meet and greets). Training North American river otters as ambassador animals poses numerous challenges. The staff devised techniques for managing aggression, reducing competing reinforcers, guest safety, and keeping active otters stimulated. Some of the tactics used were the introduction of novel items, eliminating end of session predictors, training an end of session option, a priority of animal choice, environmental changes, and team meetings to promote trainer consistency. Today all three otters are participating in these sessions as ambassador animals. As they approach adulthood their social structure may change and their daily routines may be altered by moving them permanently to the exhibit, but the staff is ready to meet these challenges. These techniques and tactics were extended to other ambassador animals, so although this paper specifically discusses North American river otters, the concepts can be extrapolated to other species.

## **“OWL” DO IT! TRAINING OWLS WITH DIFFERENT INDIVIDUAL HISTORIES**

Cathy Schlott, National Aviary

The National Aviary’s trainers have had the opportunity to work with nine different species of owls, many with different backgrounds. We have used hand-raised, parent reared, and non-releasable wild owls for programming. We have also had success breeding our Ambassador Eurasian Eagle Owls and have had the opportunity to hand-raise several for other zoos to use as ambassador and education birds. However, acquiring a hand-raised owl does not guarantee results in any given scenario. The key to setting each individual up for success is a concrete yet flexible training program utilizing all of the tools in your toolbox. Being willing to create individual plans based on past-history and the individual’s needs is only the first step. Success for every bird hinges on continual reevaluation and adaptation. This presentation will show case studies of some of our successes as well as failures.

## **TRAINING BASED ON NATURAL HISTORY: SUCCESS WITH A JUVENILE AMERICAN ALLIGATOR IN A SHOW SETTING**

Deidre Ousterhout, Zoo Atlanta

Ambassador animals have been shown to increase human learning periods, assist with information retention, and encourage learners to feel compassion and gain an understanding of wildlife. When presenters train animal ambassadors to do natural behaviors, rather than simply holding the animal, they provide the audience with an opportunity to see the animal in action, rather than just observe what it looks or feels like. Many educational programs focus on training and presenting mammals and bird species, but reptiles can be a powerful tool for education as well. This paper details the journey of training a juvenile American alligator an A to B behavior for a presentation in a 200 person amphitheater. By using the natural history of the American alligator as their guide, keepers at Zoo Atlanta were able to create an antecedent arrangement that allowed for the successful use of operant conditioning to obtain the goal behavior.

### **Break**

10:10am – 10:50am **Presentations**

## **CHOICES AT 65 MILES PER HOUR: TRAINING A CHEETAH TO RETRIEVE A RUNNING LURE**

Whitney Marker, Columbus Zoo and Aquarium

When the Heart of Africa region opened at the Columbus Zoo, our Animal Programs team had the opportunity to train and present a “cheetah run” behavior. This allowed us to provide enrichment and stimulation for our cheetahs while using this impressive behavior as a vehicle for conservation education. As we dove into the logistics of training our diverse collection of free contact cheetahs, we explored how much voice each animal had in their experience. Upon completion of chasing a toy along our lure system, our cheetahs had a variety of choices they could make as to where to go and what to do with the lure. No matter what their choices were, we trained each one to trade out the high value lure for other reinforcers. The following year, a 6-week-old male cub, Kvamme, joined our program after previously being mother-reared and his unique history, behaviors, and relationships with our trainers caused us to consider a different plan. Previously, our trainers would walk towards Kvamme to trade out the lure; however, we opted for a change - the cheetah placing the lure in a predetermined location and walking towards the trainer for reinforcement. This paper discusses training a retrieval behavior with a cheetah, the process of chaining the behavior to our “cheetah run,” the value of addressing the individuality of each cheetah, and the impact the behavior had on our connection to the audience thus allowing Kvamme to play an active role in the conservation of his species.

## **ALLOWING CHOICE AND CONTROL OVER DIET FOR OUR POLAR BEAR AT THE KANSAS CITY ZOO**

Andrea O’ Daniels, Kansas City Zoo

The Kansas City Zoo is home to a 27 year old female polar bear, Berlin. Berlin typically goes through a

period of seasonal pacing. It will start at the beginning of breeding season in January and begin to taper off in May. In 2017, we did not see a decrease in pacing, but instead an increase of pacing in May. She was pacing at all times of the day and did not seem to be resting. The keeper staff began to evaluate what was causing the pacing. When asking ourselves, “What does Berlin want,” we realized that while she wasn’t consuming her entire diet every day she was very eager for lard. She was allotted 2 lbs. of lard per day and was eating it very quickly. We decided to increase her lard for 3 days to see if this had any effect on her pacing. We immediately saw a dramatic decrease in her pacing. We then decided to go a step further and try letting her choose what she wants to eat each day. Keepers evaluate, on a daily basis, what she prefers and make her diet accordingly. We have found that letting Berlin choose what she wants to eat each day has a positive effect on her overall pacing.

10:50am – 12:00pm **Service Dogs, Inc.**

### **From Shelter to Service Dog: The Positive Reinforcement Journey**

For the past 30 years’ we at Service Dogs, Inc. a non-profit organization have been training Hearing Dogs and Service Dogs to assist adult Texans with disabilities. We adopt most of our dogs from animal shelters and rescues. Utilizing positive reinforcement, we train the dogs, pair them with their new partners and then train them as teams – all free of charge to the recipients.

What does it take for a shelter or rescue dog to be selected as a service dog candidate? With thousands of shelter dogs to evaluate, why do only a select few make the program? What are our first impressions in a shelter environment? We’re home, what’s next? What techniques are in store for a positive training future? What about the client? And, finally, the team....

Service Dogs, Inc has from its beginnings trained on a foundation of trust and relationship between the handler and the dog. We establish successful teams by building strong relationships, establishing clear communication and teaching through positive reinforcement.

A shelter dog’s positive journey from stray to star.

12:00pm - 1:30pm **Lunch on your own**

1:30pm – 2:50pm **Advance Training Workshop: Advanced Concepts in Animal Training and their Practical Application**

### **Barbara Heidenreich**

#### **Barbara’s Force Free Animal Training**

In 1982 Barbara Heidenreich secured her first job working with animals in a veterinary hospital. After exploring different animal related jobs and receiving her degree in Zoology from the University of California at Davis in 1990, Barbara started her career as an animal trainer in a zoological park. She has been a professional trainer ever since.

Barbara provides consulting services to zoos, nature centers, universities and other animal facilities. She lectures regularly to the veterinary community and is an adjunct clinical instructor at Texas A & M University, Veterinary Medicine and Biological Sciences. Barbara is a former president of the International Association of Avian Trainers and Educators and served on the Board of Directors from 1997-2009. She volunteers her expertise to support conservation projects, The Kakapo Recovery Program and the Bird Endowment. In her career she has trained animals, trained staff, lectured and/or presented shows at over 60 facilities around the world.

Barbara has been a featured speaker on animal training in over twenty countries and has been published in nine languages. Barbara teaches learning theory as described by the science of behavior analysis. She is also passionate about teaching excellent animal training practical application skills. Barbara is thrilled

to have had the opportunity to train thousands of animals, from rats to rhinos. This hands-on practice with so many different individual animals has been invaluable to helping her provide caregivers the tools they need to solve behavior problems and have a great relationship with the animals in their lives based on trust. Her goal is to leave behind a legacy of kindness to animals by sharing her expertise.

Animal training is a field that is dynamic and evolving. Cutting edge professionals are constantly asking questions, challenging themselves to better use the science and technology to improve how we care for animals. This workshop will explore some of the topics that contemporary animal trainers have been embracing and/or exploring more in recent years in an effort to continue to advance the industry. The workshop will cover: Behavior economics, an entire field devoted to the study of reinforcement value and how it influences behavior. Learn how to apply aspects of this field to improve training. What are schedules of reinforcement and which are most relevant in today's animal training? When undesired behavior occurs there are many options for trainer responses, most have drawbacks. Learn what's on the menu and what choices facilitate learning without fallout. The bridging stimulus can have numerous different meanings depending on how a trainer uses it. Discover the many possible functions of a bridging stimulus and proper application. Think you are using classical conditioning or counter conditioning when you are introducing that new object and pairing it with food? Not exactly. Intrigued? Join this advanced concepts workshop and learn the latest thinking on this common procedure and others in animal training.

### **Break**

3:10pm – 4:20pm      **Presentations**

#### **IMPROVING NAIL CARE IN A WHITE-NOSE COATI (*NASUA NARICA*) UTILIZING NATURAL BEHAVIOR AND OPERANT CONDITIONING**

Autumn Henry, Ashley Warrington, Lauren Wilson, Texas State Aquarium

Sonora is an 11 year old, female white-nosed coati (*Nasua narica*) who resides at the Texas State Aquarium in Corpus Christi, TX. As she's aged, Sonora is less inclined to emit behaviors that would naturally wear down her nails i.e. digging and climbing. This has created an issue where her nails grow out quickly and snag on materials both in her enclosure and on stage, which seems to be a negative and frustrating experience for Sonora. She is trained to voluntarily enter an induction chamber where she can be anesthetized for medical examinations but this is not an ideal process for routine nail care. Trainers decided that in order to decrease risks associated with anesthesia and to improve her welfare, a voluntary nail filing behavior should be trained that utilizes the coati's natural behavior of digging. We used a PVC pipe wrapped with fine-grit sandpaper and desensitized her to the object. Sonora was then shaped to scratch at the sandpaper with her front nails through a protective barrier. We then switched out the fine-grit for a coarser variety of sandpaper for more efficient filing. This ensures that Sonora can voluntarily participate in her own nail care rather than have her nails be trimmed solely while she's under anesthesia. We have already noticed a drastic reduction in both nail splitting and snagging since the introduction of this behavior. Because the reduction in negative behaviors has appeared to alleviate frustration, we believe her welfare has been improved by training this behavior.

#### **Behavioral Management Fund Scholarship Winner**

#### **UTILIZING TRAINING TO DETERMINE THE ENERGETIC COST OF POLAR BEAR BEHAVIORS AT THE SAN DIEGO ZOO**

Becky Wolf, San Diego Zoo

Training has been used for years to assist with the husbandry needs of many zoo animals. From shifting to injections and more, positive reinforcement training is an important part of the daily routine for many of the animals in our care. At the San Diego Zoo, keepers were asked to participate in a research project to assist the US Geological Survey to compare the energetic costs of different polar bear behaviors, which will ultimately inform conservationists about the impacts of climate change on wild polar bears.

Over the course of 6 months, keepers were able to train “Tatqiq”, a 16-year old female polar bear, to voluntarily participate in blood draws, collection of 10-minute resting oxygen consumption rates while inside a metabolic test space, and walking on a motorized treadmill. The data that was collected is vital to helping researchers in their study on polar bear body functions and will hopefully prove valuable to helping save wild polar bears.

### **TRAINING A VOLUNTARY EYE MEDICATION APPLICATION WITH A HARRIS HAWK (*PARABUTEO UNICINCTUS*)**

Autumn Henry, Sean McLaughlin, Lauren Wilson, Texas State Aquarium

Maverick is a Harris hawk (*Parabuteo unicinctus*) that flies in the Texas State Aquarium’s Wildflight show. He recently developed an eye issue and is often found in the morning with his right eye squinted shut. Despite multiple veterinarian and ophthalmology appointments, no resolvable issues were found. It was decided that a medicated gel would be applied to his eye twice a day. Historically, trainers had to physically restrain Maverick in order to apply the medication. However, he began demonstrating avoidance behavior of the glove and trainers. It was decided that a voluntary application should be trained. The Wildflight team designated and redesigned a crate for medical use only. A hole was carved into a sliding door that was large enough for him to extend his neck through but small enough to prevent being footed. We began by training him to place his head through the hole of the medical crate. We trained a station behavior where he placed his beak into our hand and then fed him small amounts to keep his head in place while we gradually approached his eye with the medicated gel. After several approximations, we eventually were able to place the medication on his right eye while maintaining his head in the correct position. This greatly improved his behavior regarding the glove and different trainers. The training of this husbandry behavior has inspired us to continue to look for creative ways to train behaviors, especially husbandry behaviors, where animals can have choice and control in their environment.

#### **Break**

4:40 - 5:20pm

#### **Presentations**

### **WE LIKE OUR PURRITOS SPICY! HOW TO TAME “FERAL” KITTENS**

Brianne Youngberg, Saving One Life

Approximately 3.2 million cats enter U.S animal shelters every year with roughly 860,000 of these animals euthanized shortly after arriving. When faced with a constant influx of animals, shelters are forced to make the decision on which animals live or die due to limited space and resources. Many cats will be deemed “feral” leading to the staggering number of euthanasia cases. When a feline enters a shelter displaying what the shelter considers hostility-i.e. hissing or lashing out-they are labeled “feral” without much thought. Sadly, the label “feral” means the feline is “unhealthy/ unadoptable”, often warranting a death sentence. This label is not solely reserved for adult cats and even kittens as young as three weeks can be identified as such, leading to euthanasia. Usually, these cats are scared, overstimulated and stressed, but due to limited space, these animals are killed before they are given a chance at life. A feral cat is defined as “a cat who has either never had any contact with humans or her contact with humans has diminished over time... not likely to ever become a lap cat or enjoy living indoors.\*” This however, isn’t always the case. Through patience, positive reinforcement and the flooding technique, many of these “feral” kittens can be rehabbed into adoptable loving pets.

### **TRAINING WILD ANIMALS FOR THE MEDIA INDUSTRY IN THE UK**

Emma Hills, Heythrop Zoological Gardens (Amazing Animals)

At Heythrop Zoological Gardens we house over 100 species, ranging from tortoises to tigers. We are based in the UK and hold the largest collection of trained animals in Europe. Our animals have been trained exclusively for media projects for over 40 years and we’re constantly working on improving and adapting out training methods and striving to put welfare first in a demanding industry. Over the years, we’ve built important relationships with other trainers, researchers and consultants that offer priceless

help in problem solving the best way to positively train our animals. Using positive techniques and allowing the animals to remain empowered throughout the sessions is vital to the long-term success of our built behaviours. By relying on scientific methods and acting on what can be observed rather than personally interpreted, we can be consistent and teach other trainers effectively. In this talk I will be sharing my journey so far, using our zebra training as an example, and discuss the plans we have for making a difference in the media industry by educating production companies and always putting animal welfare at the forefront.

5:20pm – 6:20pm

**Committee Meetings**

See committee descriptions for a list of the different ways you can become more involved in ABMA!

6:30pm – 7:30pm

**Program Council Meeting**

Meeting of committee chairs. ABMA members are welcome to attend.

*Hospitality Suite*



# DAILY SCHEDULE

## Thursday, April 12

8:30am – 9:00am     **Registration**  
9:00am - 9:30am     **Bus Loading for Sea World San Antonio**  
9:30am - 6:00pm     **Sea World San Antonio**  
6:00pm                 **Bus Loading for Hotel**  
7:00pm                 **Dinner on your Own**

*Pavo Real  
Hotel Lobby*

Come over to Freetail Brewing for drinks and dinner. A food truck will be onsite or you can bring your own food. More details at the conference.

FreeTail Brewing

2000 S. Presa

<https://www.freetailbrewing.com/>



**\*\*\*All activities are in the La Villita Ballroom unless otherwise noted\*\*\***

7:30am – 8:00am      **Registration**

*Pavo Real*

8:00am – 8:30am      **Mini Keynote: Thad Lacinak, Founder and Principal, Precision Behavior**

Thad brings more than 40 years of executive management and pioneering accomplishments to the field of behavior modification. He specializes in positive reinforcement application for animal facilities, school systems, parents and corporations worldwide.

A staunch proponent of excellence in zoological facilities, Thad is frequently sought by the media for his expert opinion on a variety of animal-related issues. He has debated several outspoken animal extremists on shows such as Larry King Live, PBS radio, The Kelly File, and many others. In 2016, he produced and hosted the documentary, *Elephant Trainer in the Room*, exploring the two polarized approaches to teaching elephants in human care.

In 2008, Thad retired from a 35 year career at Busch Entertainment Corporation as Vice President and Corporate Curator of Animal Training for all U.S. SeaWorld and Busch Gardens theme parks. He was instrumental in developing their industry-leading techniques, husbandry procedures, the original concept for Discovery Cove and the spectacular killer whale shows, one of which received the prestigious THEA Award.

Lacinak is a member of the International Marine Animal Trainers Association where he served as Vice President and he was a founder and President of the Animal Behavior Management Alliance.

Thad's 2001 New York Times' bestseller, *Whale Done!* sold over a million copies in eighteen languages. *Whale Done Parenting* was released in the Fall of 2009 and *The Whale Done School* was released in the Spring of 2012.

8:30am - 9:10am      **Presentations**

**WHAT THE FLOCK? HOW WE INTEGRATED OUR AMBASSADOR FLAMINGOS INTO THE EXHIBIT FLOCK**

Rachel Salant, Regina Smith, Woodland Park Zoo

Woodland Park Zoo's expanding Ambassador Animal program took on a new species this year- Chilean flamingos. In 2016, eggs rolled off nest mounds resulting in two birds needing to be hand reared. By November, WPZ decided that the pair should be used as Ambassadors, so the Ambassador Animal team started taking over their daily exercise walks and training sessions. The only housing option was to keep them as a pair in the flamingo holding barn behind the exhibit- a space that is half concrete/half grass with no pool or water feature. It was soon decided the best thing for their welfare was to integrate them into the exhibit flock of 38 birds, which would provide them with a flock for social interaction, naturalistic substrate, and water features. We came up with an experimental plan to train the two chicks a recall in order to voluntarily call them off exhibit to join keepers on walks around the zoo for daily educational up-close experiences. The birds were taught this recall using krill AND walks around zoo grounds as reinforcers. No weight management was used to create motivation, and at no time were we to physically retrieve the birds if they chose not to leave the flock. Commitment to sessions 1- 2x daily for a year and cross team collaboration and communication has allowed us to finally have our cake and eat it too: two Ambassador flamingos that live on exhibit and have the choice as to whether or not they participate in programs.

**HUSBANDRY STAFF CARE MANUAL: HOW THE HUSBANDRY LEADERSHIP TEAM AT ADVENTURE AQUARIUM CREATED A SUCCESSFUL MENTOR PROGRAM**

Ann-Marie Bisagno & Kathryn Budion, Adventure Aquarium

Adventure Aquarium houses, 464 species of 15,042 individual animals, with a husbandry staff of 39. We realized the care of the animal staff is just as important as taking care of the animals, and sometimes more difficult. As part of Adventure Aquariums commitment to constantly improve in all areas of the business, including employee satisfaction, we frequently solicit employee feedback by formal and informal ways. As a result of this feedback the husbandry leadership realized that we needed to take steps to improve moral and communication, so we developed a mentor program. As the program evolved over a period of 5 years we found it to be beneficial to the team in many ways. It gave the staff the opportunity to learn new skills by becoming mentors to their peers. It enabled them to keep track of their yearly goals with support along the way to achieve them. Animal care benefited by keeping up on training goals and improving communication between trainers. Staff development improved by expanding the program to include the next level biologists. The mentor program proved to be an important tool to address communication and performance issues on a peer to peer basis. This paper will discuss the methods used and the evolution of the bird and mammal mentor program. It will describe how it helped staff and leaders to improve communication, animal care and staff development.

**9:10am – 10:10am      Research and Evaluation Workshop Follow Up**

**Break**

**10:40am – 12:00pm      Presentations**

### **THE USE OF SOCIAL INTRODUCTION OF ASIAN BULL ELEPHANTS TO REDUCE STEREOTYPICAL BEHAVIOR**

Danielle Lints, Denver Zoo

Historically, zoos have managed bulls in a solitary fashion, replicating what was thought to be a natural state for male elephants. Research today shows that bulls often come together in loose bachelor groups. This was the inspiration for Denver Zoo when deciding to socialize our 3.0 Asian elephants. This goal could help us mimic natural behaviors and potentially reduce stereotypy. In late summer 2016, we observed stereotypy that was demonstrated while the bulls lived alone. Introductions began in December of 2016 with Bodhi (12) and Billy (8). Groucho (47) was introduced a month later. Social behaviors were closely observed, and stereotypy was monitored. The bulls have various social opportunities allowing us to replicate natural behavior. We observed the bulls spent a large amount of time interacting together and we saw a significant decrease in stereotypic behaviors when they had access to social interaction. However, we did have an unexpected result with Billy who had had no stereotypy prior to introduction. Billy started exhibiting pacing behaviors along areas where he could see the other elephants but did not have physical access to them. The team immediately began to assess potential triggers for this behavior and how to address this new stereotypy. The results that we've seen so far indicates that socializing the three bull elephants at Denver Zoo has had positive impacts on their day to day experiences, reduced stereotypy overall and continued to challenge our team to pursue best practices for the future of bull management.

### **WINGS, WHALES AND DOLPHINS: A GAME CHANGER FOR MULTI-SPECIES ENRICHMENT**

Philip Waugh, Jordan Greene, & Sophia Snell , SeaWorld San Antonio

Enrichment programs in zoological facilities are common around the world. The main purposes of enrichment are to stimulate animals mentally and physically as well as encourage natural behavior. At Wings, Whales, and Dolphins Theater in SeaWorld San Antonio, we had the unique opportunity to incorporate multispecies training into our enrichment program. We are home to Beluga whales (*Delphinapterus leucas*), Pacific White-Sided dolphins (*Lagenorhynchus obliquidens*), and 6 species of macaws. Through the implementation of our behavioral plan, we were able to introduce the majority of our animals to one another. As a result of this success, multispecies training was variably incorporated into training sessions in the form of enrichment. Our animal training team no longer viewed the animals in our care as 3 separate groups, but one pod composed of many species. By altering our perception of the animal groups, we were able to provide high quality social enrichment that changed the lives of our animals and trainers.

## **VARIATIONS IN THE BEHAVIOR AND ENCLOSURE USE OF BLIND AND SIGHTED COMMON GUILLEMOTS (*Uria aalge*)**

Carrie Ellis, Cheyenne Mountain Zoo, Plymouth University UK, Living Coasts Zoo & Aquarium UK  
Evidence-based husbandry and welfare practices are becoming the norm in zoos and other captive-animal facilities around the world, yet research into the benefits of these practices for animals with disabilities remains sparse. To date, very few studies have been conducted which examine the behavior of blind animals in comparison to their sighted conspecifics. For this study, a colony of 32 common guillemots (*Uria aalge*) was used to explore the behavioral variations of two sight-impaired individuals (N=2) that have been diagnosed with partial to full blindness as a result of age-onset avian cataracts. State behavior and enclosure use data were collected using instantaneous focal sampling methods over a period of 2 months. Analysis revealed significant differences in behavior and enclosure use between the sight-impaired and sighted conspecifics. Both sight impaired guillemots spent significantly more time resting ( $F_{2, 77} = 6.9, p = 0.002$ ), less time in the water ( $X^2 = 22.56, df = 2, p < 0.001$ ) and utilized less of their enclosure than the sighted individuals. Recommendations for maintaining the welfare of sight-impaired individuals include provision of adequate rest/hiding spaces and reliably accessible feed sources. Generalization of these results to the welfare of other zoo animal collections will also be discussed.

## **OPENING THE BARN DOORS IN A NEW DIRECTION**

Katie Stevens, Columbus Zoo and Aquarium

The Animal Programs department took over the guest interaction element of the “My Barn” goat yard at the Columbus Zoo and Aquarium in 2014. We have grown from talking about goats to also caring for and expanding our barn collection to help convey our message, which focuses on heritage breeds. We place an emphasis on heritage breeds and their importance by training behaviors showcasing their learning abilities, adaptations, and even historic purposes. These behaviors are showcased in our “Home Heritage” show where we introduce guests to both domestic and wild animals that call the barn home. This show focuses on our history with heritage breeds, how they are beneficial, and how wild animals also serve a purpose around a barn. The goat yard is a guest favorite but, thanks to inspiration from the Cheyenne Mountain Zoo, the corner stone of our guest engagement are “defining moments.” These are moments throughout the day that staff involves guests in unique experiences. Guests might have the opportunity to help us feed, clean or train one the of barn animals. Guests think of zoos as focusing on the conservation of exotic species but we also want to instill in them a passion for the preservation of heritage breeds, and that by doing simple things they can help domestic and wild animals. My paper with elaborate on how we are continually changing the “My Barn” area of the Columbus Zoo and Aquarium and how these changes are engaging for our guests and staff.

12:00pm – 1:00pm      **Lunch on your own**

1:00pm – 2:40pm      **Presentations**

## **AN APPROACH TO ASSESSING AND SUPPORTING THE BEHAVIORAL WELLNESS OF AGEING ZOO ANIMALS**

Debra Marrin Dr. Bethany Krebs Dr. Jason Watters, San Francisco Zoo and Gardens

A cradle-to-grave approach for managing animal welfare requires care adjustments for varied life stages. It is now very common for zoo animals to reach extended ages. Aged animals may experience frequent physical and behavioral changes. As a result, assessing the well-being of these animals should occur frequently. San Francisco Zoological Society’s Wellness Team has developed a simple behavior-based method that can be used to assess the well-being of aging animals. The technique is inexpensive and based on both inputs that support and outputs that indicate behavioral wellness. It considers both caretaker effort and animals’ perspectives of their well-being. Our approach can be used to monitor quality of life of animals as well as the efficacy of modifications to housing, training, enrichment, husbandry and medication aimed at supporting quality of life. Ensuring positive quality of life for our animals supports the education and conservation missions of modern zoos by allowing our animals to be the best ambassadors for their species across all life stages.

## **SOCIALIZATION IN TRAINING: SUCCESSFUL VOLUNTARY HIP INJECTION**

Alysia Lavendar & Emily Mittleman, San Antonio Zoo

The San Antonio Zoo achieved a new milestone with the birth of 2.1 African Lion cubs in July of 2015. Given that this was the first lion cub birth at the zoo in over three decades and the emergence in popularity of parent reared carnivore offspring socialization, the decision was made to pursue socializing as a benefit for both the cubs and their animal care staff. Daily socialization sessions began with the cubs at approximately 1 month old and continued until the cubs reached 3 months. Sessions consisted of general play, basic training and relationship building with the 2.1 cubs. Early on in socialization sessions animal care staff noticed the 0.1 lion cub would often present her hip for tactile reinforcement. Building on our socialization and her bond with animal care staff, we were able to capture the hip presentation behavior much quicker once the training foundation had been established. Positive relationship building and frequent socialization sessions increased the overall success in the training of new behaviors further down the road. Using these tools, we were able to successfully voluntarily inject all three cubs with vaccines within a 3 week deadline.

## **I OTTER TAKE A HEARING TEST (OTTERS LEARN TO VOLUNTARILY TAKE A HEARING TEST)**

Lesia Scheifele, FETCHLAB at the University of Cincinnati

As caretakers, it's easy for us to visualize daily needs of clean food, water and shelter. We see to health needs; obvious injuries and not so obvious parasites, but an area of care that is rarely thought about yet can have a major impact is animal hearing. Waterfalls echoing off the walls, constant filtration sending noise into an aquatic animal's pool at levels we know would damage human ears, animals having difficulty in species interactions and training scenarios due to undiagnosed problems with their hearing, neurological issues which can be diagnosed earlier with a simple audiological test done in conjunction with a regular sedated physical; audiological testing can give insight to all.

Arguably the most important role that our chargers fill is that of teaching us about their wild counterparts. We have become sophisticated in our knowledge of what protecting habitat entails. But what if an endangered species is being interrupted during critical breeding times by man-made noise? Without being able to prove what the range of hearing is for the animal, we are at a loss in court to answer how we know that the animals are bothered by the sounds.

In conjunction with FETCHLAB at the University of Cincinnati, we taught two otters to take a hearing test by entering a box and exiting on the side they heard a tone issued. The fun part of the training came in teaching them to tell us when they did not hear a tone even though we had played one.

## **TRAINING AN AMUR LEOPARD IN A NATURAL PREY DRAG BEHAVIOR**

Basia Dann, Cheyenne Mountain Zoo

Animal ambassadors at zoos are a key component of inspiring conservation action. Training natural behaviors as part of training demonstrations is a way that keepers and animal ambassadors can introduce guests to the amazing abilities of species that guests are unlikely to see in the wild. One of the most impressive behaviors leopards exhibit in the wild is dragging a heavy prey item to a safe spot for caching. This paper describes in detail the training of an Amur Leopard in a natural prey drag behavior. Keepers trained 0.1 Amur Leopard "Anya" to drag a firehose toy up the side of a mountain as a part of a natural behavior show. Leopards in general have been considered a species that is difficult to train due to their "high energy" and tendency toward "aggressive" behaviors. Throughout the training, keepers learned several valuable lessons illustrated in this paper. Keepers worked through many obstacles including the pairing of an inexperienced trainer with an inexperienced cat, learning how to encourage a cat to place a foreign object in their mouth, and learning how to get a super food motivated cat to walk away from where the food was. This behavior in completion has led to many valuable benefits including ease in training other behaviors, an expenditure of energy that reduces stereotypic behavior and the inspiration

of countless guests to care about a highly endangered species. This behavior and the application of it as a conservation message is truly history in the making.

### **Break**

3:10pm – 4:10pm      **Presentations**

#### **TELLS AND TAILS: THE WAY OUR GIRAFFE HERD HELPS US, AS TRAINERS, DECIDE WHAT OUR NEXT APPROXIMATIONS ARE**

Amy Schilz, Cheyenne Mountain Zoo

So often in training, we hear the phrase “select for the behaviors you want to see, ignore the behaviors you don’t want to see”. This procedure has been standard for many training programs. In some scenarios, though, it isn’t always the clearest way of communicating with our animal co-workers. By ignoring unwanted behaviors, you may be missing critical information the animal is trying to provide you with. What if those “unwanted” behaviors are communicating, “Hey, slow down, I’m not ready for that step” and we end up ignoring it? In our giraffe training program, we’ve found that when we have ignored some of these small, “unwanted” behaviors, the result has been escalation of those behaviors, or increased aggression.

This paper will run through the way we have worked to create an open dialogue with our giraffe herd during their individual training sessions. By adjusting our approximations based off of what each of the giraffe’s behaviors is telling us, we have created scenarios where each of their behaviors produces desirable outcomes for them. The giraffes can control whether or not we touch them, poke them, brush or pick their hooves, etc. In most cases, the giraffes cue the trainers to cue the behaviors! Once we started paying attention to their smaller, overt behaviors (‘tells’, ex: a tail swish), we could move forward much faster, sometimes by taking steps backwards. The end result has been solid behaviors (blood draws, hoof work, injections, x-rays) built off of trusting relationships.

#### **BONNIE AND CLYDE: PREVENTING OUTLAW BEHAVIOR IN KING VULTURES**

J. Nikki Sanders and Traci Schneekloth, San Antonio Zoo

In October, 2013, the San Antonio Zoo received a juvenile male King Vulture, Clyde, from the Baton Rouge Zoo and a juvenile female, Bonnie, from the Tracy Aviary with hopes for future successful breeding. It is well known in the Aviculture field that many vulture species have the potential to become aggressive and territorial during breeding and rearing seasons. In an effort to prevent and manage these behaviors, a training program was initiated very early upon their introduction to their new habitat. As we walk the conference attendees through the establishment of the program and the steps involved in it, we will explain how positive reinforcement training was used to successfully develop voluntary husbandry behaviors. Along with our successes, we will also share the difficulties that were presented and how they were overcome through alterations, diet management and behavioral observations.

#### **SAN DIEGO ZOO GLOBAL’S AMBASSADOR CHEETAHS (*ACINONYX JUBATUS*): TRAINING, WELFARE AND THEIR ROLE IN CONSERVATION**

Kelly Salamone, Jessica Meurer, and Kyle Legoll, San Diego Zoo

San Diego Zoo Global (SDZG) utilizes ambassador animals to fulfill our mission to connect our guests to wildlife in fun and engaging ways. We currently house over 400 ambassador animals (mammals, birds, reptiles and insects) at SDZG, 11 of which are cheetahs (*Acinonyx jubatus*). In 2016 we completed 11,390 programs, many of which featured our cheetah and dog duos. Interest in ambassador cheetah welfare led to offering increased opportunities of choice and control in training, and a critical examination of the relationship with the companion dogs. SDZG evaluates welfare based on our five “Opportunities to Thrive” which is grounded on Brambell’s (1965) five freedoms. Welfare research with off-exhibit breeding cheetahs has shown that behavioral diversity can be an indicator of welfare, and personality may effect stress levels shown through fecal glucocorticoid metabolites. In 2017 trainers began working with

0.2 cheetah cubs and 2.0 domestic dogs. A training management program was enacted to increase the ambassadors' choice and control as well as to challenge trainers to increase opportunities for positive reinforcement through advanced operant training techniques. Research was conducted starting in February 2017 investigating cheetah (ambassadors, exhibit and breeding) and companion dog welfare at SDZG. This included behavior observations, fecal glucocorticoid metabolite assessment, cheetah personality surveys, detailed keeper records, and a general population survey. This paper describes new methods enacted with the ambassador cheetah and dog training system at SDZG. Additionally, it describes the development of the welfare research project and results gathered to date.

4:10pm – 5:00pm      **Training 101 Panel**

Angie Lacinak, Precision Behavior

Al Kordowski, Service Dogs, Inc.

Katie Wright-Kolodziej, Sea World San Antonio

5:00pm – 5:20pm      **2019 Conference Announcement**

6:30pm – 7:00pm      **Cocktails**

7:00pm - 10:00pm      **Banquet**

*La Villita Foyer*

*La Villita Ballroom*

# ABMA HONORS AND AWARDS

Did you know there are awards given out at each conference concluding banquet? These are the awards:

**Behavioral Management Achievement Award:** Recognizes an outstanding achievement in the application of behavior management techniques.

**Behavioral Management Innovation Award:** Recognizes outstanding application of novel, unusual or original behavior management technique

**Animal Welfare Advancement Award:** Recognizes achievements that enhance animal welfare through specific environmental enrichment/conditioning techniques or programs.

**Sharing the Knowledge Award:** Recognizes achievements in behavior management education to enhance the knowledge of professionals and/or the public to the benefit of animals in human care.

**Poster Presentation Award:** Recognizes the best poster that represents an achievement in any of the above categories in this format.

**ABMA Impact Award:** Voted on by all weekly delegates! This award is granted to the person(s), presentation, or conference event/activity that you feel is deserving of special recognition.

## How does Judging Occur?

You simply list that you are willing to serve as a judge on your yearly registration! As a judge, you are providing an important service by recognizing conference participants for their extraordinary contributions. Your role as a judge should be taken very seriously as you are acting on behalf of the entire membership in deciding which presentations are deserving of recognition in the various award categories. With this responsibility comes a great deal of honor as your actions are helping to forward the ABMA's mission by reinforcing the values that we have set forth as an organization!

# COMMITTEE DESCRIPTIONS

## **Behavior Management Fund**

This committee coordinates the development of descriptions of scholarships and grants including application and recipient criteria, the benefits of each scholarship/grant, the scholarship/grant review process, and the fundraising strategies necessary to support ABMA scholarships/grants that the BMF Committee develops. The Behavior Management Fund Committee ensures the continued financial health of the Behavior Management Fund and the continuing development of ABMA scholarships and grants. The co-chairpersons are Cinnamon Williams and Genevieve Warner.

## **Conference**

This committee works closely with the 1<sup>st</sup> Vice President to organize the annual conference, including arranging the schedule, speakers, workshops, and events. The co-chairpersons are Christina Burges and Angie Llanas.

## **Conference Content Advisory**

This committee serves the important function of ensuring that the content of the annual conferences is of the highest quality and relevance to the ABMA membership. This committee assists the conference committee by suggesting speakers, maintaining a conference template, ensuring workshops and demonstrations are rotated as needed so that current topics of interest are explored, and acquiring the CEU credits for each conference. The CCA Committee reviews and scores abstract submissions and works with the conference committee to select poster and paper presentations for each conference. The committee also maintains a historical document that contains previous workshop presenters and key note speakers as well as video documentation of the conference presentations. The chairpersons are Jeremy Dillon and Antonio Ramirez.

## **Education**

This committee is responsible for educating the membership, future members, and other like-minded organizations about the ABMA and what we offer as an organization. This committee creates brochures and advertisements, as needed, for educational purposes to better promote the function of the ABMA. For the annual conference, the education committee is responsible for organizing career night and hosting the hospitality suite. The chairperson is Missy Lamar.

## **Government Affairs**

This committee monitors and reviews proposed government rulemaking, regulations, and laws regarding animal behavior management for both domestic and exotic species. The committee reviews all proposed rules, regulations and laws on the federal register and recommends action to the board of directors. The chairperson is Justin Garner.

## **Honors and Awards**

The responsibilities of this committee include all aspects of judging and awards at the annual conference. This includes selecting judges, ordering awards, overseeing judges throughout the process, processing the “impact award”, tallying votes, and presenting awards. The co-chairpersons are Jennifer Hennessy and Ashley Friedman.

## **Membership**

This committee’s main objectives are to brainstorm ways to increase new and retain current memberships. This committee works cooperatively with other ABMA committee to ensure that the ABMA member’s expectations and needs are met. It continues to search for ways that ABMA can better serve its members. In addition, the Membership Committee also looks for ways to reach out to prospective members. To do this, committee members distribute information about the ABMA at their facilities, conferences or other related meetings. Finally, the Membership Committee also looks for ways to promote the ABMA and its core values. The chairperson is Jessica Robinson.

## **Merchandise**

The Merchandise Committee is responsible for anything related to the merchandise needs for the organization. This includes providing ideas and prices to the board of directors for items to sell at each annual conference, working with the conference committee for ideas for the conference bags and giveaways, and making sure the appropriate permits are in place for sales and raffles for each conference location. The committee chair is also respon-

sible for working with the conference committee to coordinate the scheduling of volunteers to help with sales at each conference. During the rest of the year, the chair is responsible for any merchandise inquiries and mail order sales. The chairperson is Susie Ekard.

### **Nominations and Elections**

The Nominations and Elections Committee, chaired by the past president, solicits and reviews nominations for the board of directors; puts together a slate for approval by the board; and coordinates the election of the slate by the membership. The chairperson is Cathy Schlott.

### **Proceedings**

The proceedings committee collects, edits, and formats papers from all of the presentations and posters at the annual conference. The committee then compiles these papers into a PDF file. This PDF file can be found on the website as a member benefit. As a member you can read the online proceedings from all our conferences even if you did not attend! The chairperson is Maura Davis.

### **Public Affairs**

The Public Affairs committee is responsible for communications with the membership and marketing of the organization. This committee maintains social media such as the ABMA's Facebook and Twitter sites and is responsible for maintaining regular contact with the members through bulk email at least once per month. In addition, the committee maintains records of any press coverage received by ABMA and sends out press releases on behalf of the ABMA. The public affairs committee coordinates joint press releases with hosting institutions in advance of the annual conference. The chairperson is Margaret Rouser.

### **Publications**

The Publications Committee is responsible for putting together and publishing the quarterly member newsletter, the ABMA Engage. This involves solicitation of articles and other content, reviewing and editing submissions, formatting the newsletter, and working with the printing company to have it printed and mailed to members. The chairperson is Cathy Schlott.

### **Research and Evaluation**

The responsibilities of the Research and Evaluation Committee are to address the use of behavioral research as a husbandry tool to enhance animal welfare and management in both captivity and the wild and to increase awareness of on-going behavioral research relevant to member interests. The committee also facilitates contact with in-situ research projects in collaboration with the Behavior Management Fund. Finally, the committee conducts inquiry-based assessments, governance evaluations, and other research-related endeavors as needed by the ABMA, including annual conference and member surveys. The chairperson is Clint Lusardi.

### **Site Selection**

The Site Selection Committee is responsible for determining conference locations by making the initial connections with institutions looking to host a future conference. Ultimately, a conference site is chosen based on this committee's recommendations. Once a site is chosen, this committee's responsibilities include securing contracts with host facilities and hotels, identifying conference hotels, and working closely with the Conference Committee chair. The chairperson is Kelly Elkins.

### **Sponsorship**

The ABMA is a 501c(3) non-profit organization. This committee is responsible for researching, identifying, and securing funding sources to support the ABMA. The chairperson is Alicia Sampson.

### **Website**

The Website Committee is mainly responsible for the maintenance of all aspects related to the website including making updates to the site, handling website feedback, managing job postings, maintaining website security, working with the website administrator, and determining future improvements for the website. The chairperson is Heather Samper.

# DELEGATE LIST

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**SAVE THE DATE!**



Mark your calendars! The 2019 ABMA conference will be April 7-12 in  
Portland, OR

The Benson Hotel is offering a conference rate of \$189.

The Oregon Zoo is hosting.