



Theater in Zoos & Aquariums
March 2013

Volume 7
Issue 1

Hello Educators and Happy New Year!..... 2

Museum Theatre in Zoos and Aquariums:
an Introduction..... 2

Help! There's an Actor in the Aquarium!..... 4

To Be, Or Not To "Be The Change":
The Intersection of Conservation,
Behavioral Psychology, and Theater..... 5

Finding the Opportunities for Theater
in Your Institution..... 6

Bringing Conservation to Life:
Planning and Creating
Kohl's Wild Theater..... 9

Reaching Out with Theater..... 11

Evaluation of Theater in Zoos
and Aquariums..... 12

Conservation Education at AZA..... 13

Program Animals..... 14



**Looking
Inside**

Hello Educators and Happy New Year!

I hope everyone had a wonderful holiday – and maybe a few of you have resolutions you are working on? I struggle with resolutions each year, as I want them to be meaningful and, if possible, related towards something I can do to help our beloved wildlife and wild places. I think I have decided upon resolving to drink more water (good for my health), and to have a reusable cup/bottle at my desk at all times with which to drink (good for the planet!). Here's to my hopeful hydration in 2013!

This newsletter edition is themed around the use of theater performances and theater techniques in zoo and aquarium programming. I was unaware of the International Museum Theater Alliance (IMTAL) until a couple of years ago when I had a graduate intern who wanted to focus her project on researching a potential theater/auditorium program for our organization. Through this project, my eyes have been opened to the number and variety of ways different zoos and aquariums have begun to utilize theater in order to convey messages, and also to sometimes inspire action. It also reminded me that we, as communicators, often

use theatrical “techniques” every day to better convey our messages, whether for a family or for a large audience. The graduate student I worked with was able to attend the annual Theater in Museums Workshop, which she raved about, and I would highly encourage you to check out when you have a chance (www.imtal.org).

Also, consider keeping on your radar the upcoming AZA Mid-Year Meeting at the South Carolina Aquarium in Charleston taking place April 6-12. The meeting includes Green Summit activities focused on planning, partnerships, best practices and involving visitors. More information can be found at www.aza.org/midyearmeeting.

Happy Reading!
Sincerely,

Carrie Chen
Committee Chair
Director of Education & Conservation
Aquarium of the Bay

Museum Theatre in Zoos and Aquariums: An Introduction

Theatre and theatrical techniques can be extremely effective conservation education strategies in zoos and aquariums. Consider the following:

- After seeing a short play about the rainforest, a coffee-lover decides she will now only buy shade-grown coffee.
- A preschooler remembers scientific facts by singing the words to a catchy song.
- A grandmother is moved to tears upon considering the intelligence of dolphins during an aquatic show.
- After learning about a poacher's economic motivations, two men debate possible solutions.
- A member family spends an hour following two characters through the wetlands exhibit that they usually just pass through.

These examples illustrate just a few of the ways that theatrical programs in zoos and aquariums create bridges between visitors' experiences with animals and intended conservation messages. Like any educational program with a live presenter, a theatrical program is a special part of a visit to a zoo or aquarium. Visitors consistently rate theatrical programs very highly, especially as educational opportunities for their children. They provide a break in the day, a chance for additional information and context, or even just a chance to rest. Because visitors enjoy these kinds of programs, they are more likely to listen to and retain the conservation messages embedded within them.

Human beings have always understood the world through narrative and relationships. If an institution desires to affect visitors' environmental attitudes and behaviors, its programs must provide opportunities for emotional connection. Emotion is also linked to memory, and memory associated with a positive experience can lead to behavior change. Stories and characters, which are the base elements of theatre, provide opportunities for visitors to form these connections, and do so in non-threatening ways.

IMTAL
international museum theatre alliance

Theatre can also serve many practical purposes: distributing crowds, reaching large groups at the same time and providing new listings in the media. Of course there is a cost associated with personnel, but theatre programs cost much less than new exhibits and are infinitely more flexible. Because theatre relies on live presenters, programs can be easily adapted to respond to new situations. Theatre can travel easily for outreach programs, appear in special events or be included in facility rentals for additional fees.

The term “museum theatre” is commonly used to refer to the use of theatre and other theatrical techniques in institutions dedicated to informal education including: art, science, children’s, natural history, and history museums, as well as historic sites, zoos and aquariums, public and botanical gardens, arboreta, parks, libraries, and cultural centers. Clearly “museum theatre” includes traditional plays performed by actors on a stage of some kind, but the term “theatrical techniques” is used to refer to the wide range of related interpretive strategies that involve characters, stories or public speaking. This could include storytelling, costumed characters, puppetry, creative dramatics, facilitated role play, and even keeper talks and animal demonstrations.

In 1990, the International Museum Theatre Alliance (IMTAL) was founded as a professional networking association for educators and administrators using theatrical techniques in museums, zoos and aquariums. IMTAL’s mission is to inspire and support the use of theatre and theatrical techniques in order to cultivate emotional connections, provoke action and add public value to the museum experience. IMTAL, an independent, not-for-profit and affiliate of the American Alliance of Museums (AAM), now has chapters in North America, Europe and Asia-Pacific/Australia. Most recently, IMTAL has begun compiling an agreed-upon set of best practices in museum theatre, which can be found on its website.

In zoos and aquariums, the use of theatre was highly popular during the resource-abundant 1990s, but difficult to find after post-9/11 budget cuts. Now it seems to be on the rise once again. Many AZA institutions who are using, experimenting with, or interested in theatre and other theatrical techniques have become active members of IMTAL, many of which are featured in the following articles. Believing that everyone benefits from the collective sharing of experiences, IMTAL is actively seeking additional voices from AZA to be included in IMTAL publications, events and online platforms. If your institution uses theatre or theatrical techniques

or is interested in doing so, I urge you to visit IMTAL at www.imtal.org or on Facebook, and to consider becoming a member or attending the 2013 International IMTAL conference being held October 6-10 in Washington, DC. The IMTAL board is always happy to answer questions at any time and has created a position specifically dedicated to working with members from zoos and aquariums. This position is held by Dave McLellan (Zoological Society of Milwaukee) who can be reached at animals@imtal.org.

The examples on the following pages illustrate how theatrical techniques can effectively accomplish a large variety of institutional goals. After reading, I hope you will join the conversation and share your ideas and experiences with us.

Jillian Finkle is the President of IMTAL and currently works for the Providence Children’s Museum in Rhode Island. A former zoo employee, she has long had a special interest in theatre in zoos and aquariums. Her graduate research on the topic can be found at <http://programs.columbian.gwu.edu/museumstudies/sites/default/files/u9/ZooandAquariumTheater.pdf> and she can be reached at President@imtal.org.

Jillian Finkle
IMTAL President



Help! There's an Actor in the Aquarium!

Introducing actors into an aquarium or a zoo's specialized work force can be a challenge because of misconceptions about what it will be like to work with them. I have been involved with actors as interpreters for much of my life and have found them to be disciplined, reliable and responsive. Actors who choose to work in museums, zoos and aquariums embody the skills and attributes we value in interpreters - they are avid learners, have an approachable demeanor, a sense of pacing, the ability to improvise, to read people and establish a dialogue of learning, to think on their feet, and to recognize which visitors want to be approached and to what extent. In addition, they are expert at the narrative and story-telling skills that make it possible for audiences to construct meaning from what they see, hear, and touch. In most institutions that employ actors, they perform in short plays, and also present other programs, such as science demonstrations.

A survey I recently conducted of historical, children's, and science museums regarding what is expected of interpretive programs and those who deliver them (expectations are similar in zoos and aquariums) revealed that programs should:

- Inspire further learning by encouraging interest in a subject
- Create a love for life-long learning
- Use inquiry, discussion, role playing and other interactive, interpretive techniques to involve the audience
- Appeal to diverse learning styles
- Convey complex ideas by showing rather than telling
- Create the feeling of an event, or something special and extraordinary taking place in the exhibit
- Engage, compel and entertain museum visitors.

As for interpreters, they should:

- Read the interests and abilities of a specific audience and adjust presentation and content accordingly
- Convey nuances of meaning and emotion through voice inflection, facial expression and gesture
- Engage adults and children at the same time
- Conduct post-show conversations with question and answer sessions
- Conduct research before and after the presentation so as to keep content current.

In many cases, they also:

- Develop programs
- Train staff in public speaking and presentation skills
- Conduct post-show conversations and staff special events

They are expected to make audiences comfortable whether or not they wish to participate, and be able to gauge the level of participation each person is comfortable with. They will encounter and deal with people unwilling to speak or engage, those who they'll have difficulty preventing from speaking, and some who may even play 'stump the presenter.' Providing presenters with tools for dealing with the complex situations listed, and with opportunities to practice using those tools, is essential.

Contrary to what these lists of expectations would lead us to expect, both the people who develop our programs and those who present them are often unpaid, or on the lowest of pay ranges. Rather than being acknowledged as the public face of an institution, representatives of its mission and values, or presenters of research and conservation messages, they are typically graded and paid on a level similar to staff who conduct transactions with our visitors, such as ticket and merchandise sales.

If you are fortunate enough to have discovered what actors can bring to your interpretive programs, financial compensation is just one of the ways to retain their talents. Treat them as the professionals they are. Provide them with places to warm up their voices, bodies and minds (just as dancers, singers and musicians need to tune their bodies and their instruments, so do actors). This space may double as a place in which to do research and memorize lines - activities that need to be planned and paid for. A well-lit, private and secure space in which to change costumes and put on makeup is also necessary. The ideal space is a combination of these, with the performance areas easily accessible.

How to attract and select actors who not only fit into our settings, but thrive there, is no harder than selecting other staff who work with the public. Detailed information on tried and true methods for auditioning and interviewing actors can be found in this author's book, *Exploring Museum Theatre*, and through organizations such as the International Museum Theatre Alliance.

The species *Ludio ludius* (actor, or player) responds well to life in zoos and aquariums and performs at the highest level in exchange for acknowledgement, and care and feeding on par with what we provide to our residents.

Tessa Bridal
Manager of Public Programs
Monterey Bay Aquarium

To Be, Or Not To “Be The Change”: The Intersection of Conservation, Behavioral Psychology, and Theater

The Ideal Conservation Education Program

If a conservation educator were to leave work one day knowing that s/he welcomed and entertained guests, taught them something new about the natural world, and spurred them on to a new conservation action on behalf of a species or ecosystem in a positive, encouraging, and measurable way, no one would argue that this was a job very well done. Managing to include all of these elements in one program, however, is a tricky task for any educator. Zoo educators especially find themselves in the middle of a complex learning environment, wherein guests are free to come and go, ages and attention spans vary widely with each guest, entertainment is expected and valued at a premium, and the harsh realities of modern day conservation challenges are difficult to explain quickly and frame in a positive light. Clearly, zoo educators have their work cut out for them if they are to entertain, educate and motivate their guests to conservation action.

Tell Me HOW to ‘Be the Change’

The need to do all three is increasingly apparent for effective, yet positive, programming in light of our current global environmental challenges. How then do we accomplish such a broad goal? First we start by looking at where conservation education has been and what research has shown us about its effectiveness. Lowry (2009) and Schultz (2011) have studied zoo and environmental programs and found similar trends. In the face of mounting modern environmental concerns where only widespread changes in human behavior will make a true difference, gone are the days when a valuable zoo program consisted of delivering wildlife information only and leaving guests to connect the dots. In addition, broad pleas to “save the planet” or “go green” have proven equally ineffective at inducing the behavior change necessary for humans and wildlife to successfully co-exist into the future. Programs that raise awareness about environmental issues without offering effective action steps can send guests hurtling away from environmental concern and into the pit of eco-phobia. Most of all, gloomy fear- and guilt-based messages aren’t going to result in energized, empowered guests who are ready to pound the pavement and “be the change.”

We’ve all made these mistakes. What matters now is how we move forward. We must agree that if we are not aiming to inspire behavior change among our zoo guests as a central tenant of our conservation education program, it is time to re-think our program (Schultz, 2011). Our willing audience awaits, ready to



Actress Katie Yakubowski helps guests “lend a hand” to the recycling bin puppet.
Photo credit: Sue Roberts

play their role. Their biggest question, and the one that our programs must answer, is: “How (specifically and today) can my actions make a direct, positive impact for, or deter a negative threat against, wild animals and their habitats?” If our conservation education program does not answer this question, we must be willing to take another look at our program and re-evaluate our mission and purpose in light of the modern zoological era.



Polar Bear tells Katie Yakubowski that she can use her hands as well as her heart to make a difference for her animal friends.
Photo credit: Sue Roberts

Zoos Victoria: Connect-Understand-Act Model

One organization leading the way with successful, positive and effective conservation programming is Zoos Victoria (Australia). After finding that their educational efforts were raising awareness in guests but not inspiring action, Zoos Victoria’s educators set out to design a program model that would do both effectively. The result is the Connect-Understand-Act conservation education model, or C-U-A (Lowry, 2009). According to the model, an environmental “threatening process” is chosen that is relevant to the zoo guests; that is, one that they can actually influence in a meaningful way. Ideally this threatening process should be tied to one of the zoo’s ambassador animals for stronger connection points with visitors. If the students and public cannot have a positive effect on the chosen threat through



Actor Jacob Baird helps the thermostat do the limbo; “How low can you go?”
Photo credit: Sue Roberts

CONNECT	UNDERSTAND	ACT	ESSENTIAL
Tactile experiences	Themed	Targeted behavior	Multi-sensory
Close encounters	Games	Remove barriers	Comfort
Eye contact	Interactive	Convenience	Appropriate setting
Encourage observations	Layered / targeted	Incentive	Fun
Storytelling	Thought provoking	Eco-badging (appeal to image)	Themed
Characterizing animals	Analogies	Social norms	Targeted behavior
Role play / drama	Comparisons	Likeness	Layered / targets audience needs
Discovery	Visual aids (props)	Walk the talk	
Unexpected / surprise	Relevant	Join others (link)	
Mimicry	Appropriate questioning	Relevant	
Privileged insights	Role-play	Feedback	
Reflective pauses	Storytelling	Tangible action	
		Access experts	
		Commitments / pledges	
		Prompts	

simple behaviors, a new threat should be chosen. The conservation program is then built around the combination of this relevant threat and tangible, effective behavior that guests can do. In addition, and most essentially, the educators identify on-grounds connection opportunities that foster and inspire emotional connections to wildlife that set the stage for guests to take action.

One such program resulting from the C-U-A model is Zoos Victoria’s “They’re Calling On You” project, where guests hear, via a gorilla keeper talk, about the practical and beneficial results of mobile phone recycling, and then receive a complimentary, postage-paid envelope to recycle their old phone as part of the project. Other projects based on C-U-A are “Don’t Palm Us Off” palm oil labeling project and

the “Wash For Wildlife” project which promotes the use of phosphate-free cleaning products in the community. The response to these programs has been extremely encouraging. During a two year trial period, evaluations indicated that 88% of students who participated in the C-U-A designed program on endangered species went on to take action for wildlife (Lowry, 2009). Connecting guests to animals by invoking emotional connections, confirming their understanding of the relevant threat, and encouraging simple, tangible action on behalf of the species, Zoos Victoria is finding terrific success in motivating zoo visitors toward behavior change for conservation.

The Play's The Thing

How, then, does theater fit into this equation? Because of its universal entertaining, educational and motivational power, a well-written and well-performed piece of theater can be just the sort of foundational, emotional catalyst on which to build an effective C-U-A inspired program. In fact, theater is uniquely designed as a motivational medium for people of extremely diverse ethnic, educational and scientific backgrounds. In fact, museum theater expert Tessa Bridal (2004) argues that implementing theater only as a tool for delivering information stops short of its greatest asset - spurring diverse audiences to grapple with ideas and ultimately move to action. Anyone who has ever viewed a truly inspirational piece of theater can attest that this art form can invoke emotion and passion in a personal and meaningful way. As Richard Louv (2008) wrote, it is this passion that is "the long-distance fuel for the struggle to save what is left of our natural heritage."

Zoos in the United States are recognizing the effectiveness of theater to help guests connect, understand and act on behalf of wildlife. At the Columbus Zoo and Aquarium, for example, summertime guests are invited to free, ten-minute puppet show comedies and optional talkbacks with the actors afterwards. Following the example of the C-U-A model, one of the Zoo's shows, "Lend a Hand," featured four puppets: a polar bear, a thermostat, a faucet and a recycle bin. Using comedy, guest interaction, and an adorable polar bear ambassador puppet, young guests met and heard from these "helpers" about the ways they can use their hands as well as their hearts to care for polar bears and animals everywhere. A follow-up evaluation (Shank, 2011) revealed that guests not only enjoyed this medium for learning about conservation and discussing it with their children, but also made some new connections. As one guest responded, "I didn't know that these actions and helping wildlife went

hand in hand!" Wildlife puppets bring animals to life and give them a strong, positive voice for interacting with visitors, young and old. In addition, the use of both casual and formal actor talkbacks can facilitate the move toward action, as actors can ask guests what they're already doing to help animals, praise and thank them for those actions and answer any questions about the play's tangible action step that they might have.

Very few program models can deliver entertainment, education, inspiration, and motivation and yet zoo guests are looking for, and responding to, this set of qualities. Combined with the C-U-A model, the 'right,' relevant threat, and specific tangible action, zoos would be wise to explore the use of theater to connect their visitors to global and local conservation action.

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Ann Bourke Shank
Guest Experience Instructor
Columbus Zoo and Aquarium



Finding the Opportunities for Theater in Your Institution

Inevitably, at some point on my tours or during an educational program, I'm asked, "So, were you a Zoology major in school?" I smile and tell my guests that while I did take some biology, my major was Drama in Education and Community. They typically reply "Oh, I can see that." I follow with a short explanation of how we use theater as educators at the San Diego Zoo every single day.

The beauty of theater is that you don't need a stage or a curtain to define the playing space in the same way that you don't need four walls and a chalkboard to define a classroom. Learning can happen anytime and anywhere. In San Diego, the weather allows us to spend time outdoors on zoo grounds. Some days my classroom is an auditorium, sometimes it is behind an animal exhibit and some days it is on a bus. One thing holds true for all locations: educators find creative ways to engage learners and encourage lasting connections with nature and wildlife. We learn through emotion, movement, story and play. When combined with a contagious passion for conservation, these dramatic elements make the guest experience memorable, even with minimal resources. Here are a few examples of educational programming that uses theatrical elements to promote engagement with our living collections and the Zoo's living history.



"Animal ER" is a summer camp activity designed for 5th graders that focuses on veterinary care in zoos. The class first visits the orangutan exhibit where they locate Karen, our orang who was the first ape to have open-heart surgery. The students hear her story, observe her and are then told they are going to meet a special guest. They are introduced to "Dr. Okapikins," a zoo veterinarian who needs their help. Each group becomes a team of doctors, quickly dressing in gowns and gloves, rushing to patch up their animals. Utilizing the Teacher-in-Role technique, the educator playing Dr. Okapikins heightens the sense of urgency through characterization and facilitates active participation. In only one hour, and with nothing more than extra supplies from our zoo hospital, this activity taps into the students' innate sense of play, increasing their knowledge of animal care.

The San Diego Zoo welcomed a new member to our education team a few years ago and her popularity has since spread among our programs. From her place on the big screen, Roberta the Zebra, a larger than life digital puppet, interacts with guests in real time, reacting to their comments and questions. Roberta is controlled by one of the trained education staff who gives her a voice and brings her character to life, acting as a bridge between the learners and the learning objectives of each program. Roberta has grown to become more than a theatrical prop that we use occasionally, to a character that the guests have come to know and request. Roberta is an incredible piece of technology, but her charisma and unique style of engaging guests is a direct reflection of the puppeteers, their understanding of her character, and how she should be used to support curriculum objectives and program goals.

One of the primary uses of theater is to tell stories, and to do so, we rely on actors to bring those stories to life. Through educational programming, we have the opportunity to make learning about our animals and our conservation initiatives come to life. By using Drama in Education techniques to support curriculum whenever possible, no matter how expensive or improvised the resources, and no matter the space, the facilitators' characterization and commitment to the dramatic process draw guests to the information they have to share. So, whether campers are making California condor puppets and putting on a show, or I'm sharing the condors' success story with my tour guests, what they are really seeing is very simply 'drama in action.'

Alison Urban
Educator Guide
San Diego Zoo Global

Bringing Conservation to Life: Planning and Creating Kohl's Wild Theater

In 2010, the Zoological Society of Milwaukee received a generous grant from Kohl's Cares to create an educational theater program. It began in May of 2011 and provides performances to zoo-goers for free. Prior to this grant, no theater program existed at the Milwaukee County Zoo. Today, we have Kohl's Wild Theater, a fully realized theater company that has become an integral part of our educational mission. As of December 2012, we have performed for 133,094 zoo audience members (both on our mainstage and at exhibits around the zoo) and 113,847 audience members in the community through our outreach program. We have written twelve 15-minute plays, six 7-minute skits and one 45-minute straight-play, each with its own unique conservation message. Our in-house theater staff consists of one full-time coordinator, a part-time registrar for outreach programming and a part-time staff of 12 professional actors. In addition, we have developed partnerships with professional writers, composers, designers and a local professional theater production shop to build full sets, costumes and puppets. Creating and managing this program has been a major undertaking, but ultimately rewarding in its ability to enhance the zoo experience and effectively convey conservation messages to wide audiences, both at the zoo and in our community.

The cornerstones of our program at the Zoo are our 15-minute "mainstage" shows. These plays and musicals use three actors to tell a story from beginning to end and focus on a specific conservation message. They are never didactic, but always educational. Conservation messages have included subjects such as the palm oil crisis, colony collapse disorder and sustainable seafood. We share these messages in stories featuring pirates, detectives, time machines, football and more. Our target age range is 7-11 years old, but each show is



In *The Legend of Hibernacula*, a bat and a cow discover the importance of a bat box.



In *Journey to the Rich Coast*, a migrating oriole arrives in Costa Rica and sings a song with a toucan puppet.

designed to be fun for the entire family so that even the youngest zoo-goers appreciate the music and puppets. Adults show interest in the contemporary conservation issues and grown-up friendly humor. Ultimately, the goal is to both entertain the public and relate their zoo experience to wildlife conservation in the broader world. By the time they leave the theater, audiences know about a threat to the featured animal and how behaviors at home can impact an animal's conservation status. All of our shows incorporate active audience participation linked to a specific human behavior that can benefit animals in the wild. For example, audiences put up imaginary window decals in our show about bird migration. Audiences turn off an on-stage computer, TV and lamp to conserve electricity in our show about global climate change. As our zoo visitors leave the theater and continue their day, they are equipped with specific knowledge to help the animal species exhibited at the zoo. We know many of these messages are sticking with zoo visitors because we hear them singing show songs as they travel through the zoo.

Developing each mainstage show takes a significant amount of planning and collaboration. Picking a concept, writing the script, vetting it for scientific accuracy, composing the music, designing the look of the show, building the technical elements (costumes, sets, props, puppets, sound cues, etc.), and ultimately rehearsing actors can take up to ten months. Just the script writing alone is a four month process. A good playwright needs about 4-6 weeks to research a topic and craft a first draft. After the first draft is submitted, we typically go through 4-5 drafts of a show to make edits and adjustments for educational impact, scientific accuracy and compatibility with the unique demands of our non-traditional performance space. At the end of the script preparation, we begin to design and build the technical elements. From start to finish, the development of a single 15-minute show can include 7-8 different people. While coordinating that many schedules can be logistically challenging, the creative gains of artistic collaboration greatly enhance our final results.



In *Journey to the Rich Coast*, a migrating oriole arrives in Costa Rica and sings a song with a toucan

Although this style of zoo-theater can require a financial commitment, there are options available to lessen the cost and workload. Many of our big expenses are necessitated by our zoo's large performance venue. We perform in a 40-foot wide outdoor amphitheater where some audience members can be 75 feet away from the actors on stage. This size demands a more robust stage presence. If a show is presented in a smaller venue, then more simple sets and costumes can be used. If developing an original script is outside the skill set of a zoo's staff, then there are rental scripts available. IMTAL (International Museum Theatre Alliance) is currently in the process of developing a script database for those interested in using plays from other institutions, including zoos and aquariums. And while professional actors are ideal for performing, other groups, such as educators, volunteers or students could be utilized to put on a show. The wonderful thing about theater is that it is creativity at every level. With a bit of creative planning, putting on a show becomes a realistic opportunity.

After almost two years of Kohl's Wild Theater, we have been very pleased with the results. Evaluations have shown positive learning outcomes with a high rate of audience recommendation to others. It is rewarding to know that our creative efforts are contributing to the long-term vision of each AZA institution - to "help people respect, value and conserve wildlife and wild places."

More information on Kohl's Wild Theater can be found at www.wildtheater.org. Any zoo or aquarium inquiries regarding IMTAL may be sent to animals@imtal.org.

Dave McLellan
Theater Coordinator
Liaison from IMTAL to AZA
Zoological Society of Milwaukee

James Mills
Director of Education
Zoological Society of Milwaukee

Reaching Out with Theater

I have had the privilege of being a part of the Wildlife Conservation Society's (WCS) Wildlife Theater program since 2005, performing for a variety of audiences both at the zoo and in venues all over the New York City area. Being a part of this program continues to be a privilege and a joy. Just yesterday, we went to a library in a section of Staten Island that had been affected by Super Storm Sandy. Families were so happy to see us and truly enjoyed our program. At the start of the show, one very quiet 5 year-old seemed not interested in participating. About half way through the show we asked, "What does a penguin look like?" He shouted out, "They are black and white and like fish!" By the end of the show, he came over and high fived me (I was in the penguin costume) and told me how he wanted to visit the zoo. These moments are why we do what we do.

When people find out that I wear a giant penguin costume at work, they often ask me, "Why theater and the zoo?" Since the founding of Wildlife Theater at the Central Park Zoo in 1992, our goal has been to enhance children's learning by presenting natural science in an engaging and entertaining format. We use the tools of theater: stories, games, act outs, puppets, songs and movement to bring the world of science and animals to life for children, with the aim of fostering the next generation of animal lovers and conservationists. We began performing puppet shows in the Central Park Zoo's Acorn Theater, as well as presenting dramatic interpretation at the polar bear exhibit.

In 1998, we created an outreach program, with the focus of bringing Wildlife Theater programs to school children from pre-kindergarten through grade five. These 45 minute programs can be brought to either an auditorium or classroom. We adapted our programming to meet national and New York State Science and Literacy Standards. We also wanted to meet the needs of the schools by creating two program types: classroom-based shows that are performed for a smaller group of kids and assembly-style shows for audiences up to 300 people. All programs are highly interactive and encourage audience participation.

Many schools see this program as an integral part of their curriculum. We had the privilege of going to PS 503 in Brooklyn for multiple years in a row. One day, another actor and I were walking down the hall with heavy props and costume and one child said, "It's Captain Cocoa. We helped you save the rainforest!" We hadn't seen that student in a year and he not only recognized us, but what our message was.



Pictured: Michael Birch, Emilie Hanson and Bricken Sparacino

Our outreach program has become the ambassador of the zoo. Our professional actors travel year-round to public and private New York City schools, Head Start programs, community events, parks, hospitals and public libraries in all five boroughs. In addition, Wildlife Theater performs at schools throughout the tri-state area, including schools that, due to distance or field trip regulations, cannot visit our zoo. This program has grown to reach over 40,000 people each year and has increased its revenue by 450% since we launched the program.

The program is expensive to operate because it is labor intensive has high maintenance costs (upkeep of a larger than life penguin costume, fuel costs, etc.). Program revenue helps offset these costs. We are at the point where Wildlife Theater almost pays for itself. In the past, grants and foundation support have helped cover our operational costs, while enabling us to reach out to the Title 1 schools who traditionally cannot afford this program. As we come closer to the elusive break-even point, we have had to think outside the box in terms of alternate revenue streams. For instance, collaborating and performing for a fee at events such as **The Intrepid's Family Day** and the American Museum of Natural History's Polar Fair, having the actor/educators be part of our high-end birthday party program, and performing for zoo private events.

In addition to focusing on revenue growth, we have also shared the mission of WCS with a greater audience, which is a priority for the program. This year, we were invited to perform at Comic Con with Sesame Street opening for us! The purpose was to reach out to families who enjoy comics and provide them with a family-friendly entertainment option.



For more information, check us out at:
<http://centralparkzoo.com/educators/wildlife-theater.aspx>

We performed our super hero play, *Captain Cocoa Saves the Rainforest*, and it was a big hit to the 500 audience members. After the show, many people came up and thanked us for coming, expressing how much they love the zoo. They requested program and zoo membership information for their families and schools. The outpouring of love for the zoo and what we do was quite wonderful.

Although an outreach program can be costly, funding sources can be developed. Grants are out there to help support programs such as Wildlife Theater. The contact with the general public and children is priceless. We have been able to grow and evolve, even in this difficult economy. Our visit reminds people to come to the zoo, helps them learn about the animals at the zoo, and inspires them to care about the animals in the wild. A good day's work for our outreach troupe.

Bricken Sparacino
Program Coordinator, Central Park Zoo
Wildlife Conservation Society (WCS)

Evaluation of Theater in Zoos and Aquariums

Thinking about evaluation can stir zoo and aquarium staff to further define goals and examine program methods and content. Combing out what you want to learn about your visitors' experience through evaluation is a positive process. It can certainly help set expectations for what you are trying to achieve with a live theater performance.

Do you want to be reassured that visitors "get" your message or educational objectives? Do you want to make sure visitors are happy with the experience they have at your site? Perhaps what you want is to be somewhere in between a didactic focus on educational achievement and a pleasantly emotional, but not especially enlightened response. Theater performance in museums, zoos and aquariums is primarily used to find a balance between those two poles, so evaluation should generally follow by striking a balance between a test and a comment card.

One research method that I think can be valuable for evaluation of museum theater is Falk and Dierking's Personal Meaning Mapping. It is a flexible tool and allows for the varied experiences possible in a museum theater event.

In my work, I've been learning that surveys miss evaluating the knowledge that visitors might have gained, so use of Personal Meaning Mapping, essays,

drawings, or open-ended discussions might work better at getting a more precise account of what someone knows, what they got from a program and how they might integrate the two.

You have to remember that measuring any kind of learning requires a baseline of the visitors' knowledge and experience, which is a challenge in informal learning environments. If you are looking for evidence of change, it requires knowing where your visitors' starting line is through pre-experience surveys or interviews. Then you have to follow these same visitors to their post-experience. It is not a quick and easy process, and requires follow through.

Catherine Hughes
Live Interpretation Project Director
Atlanta History Center

Conservation Education at AZA

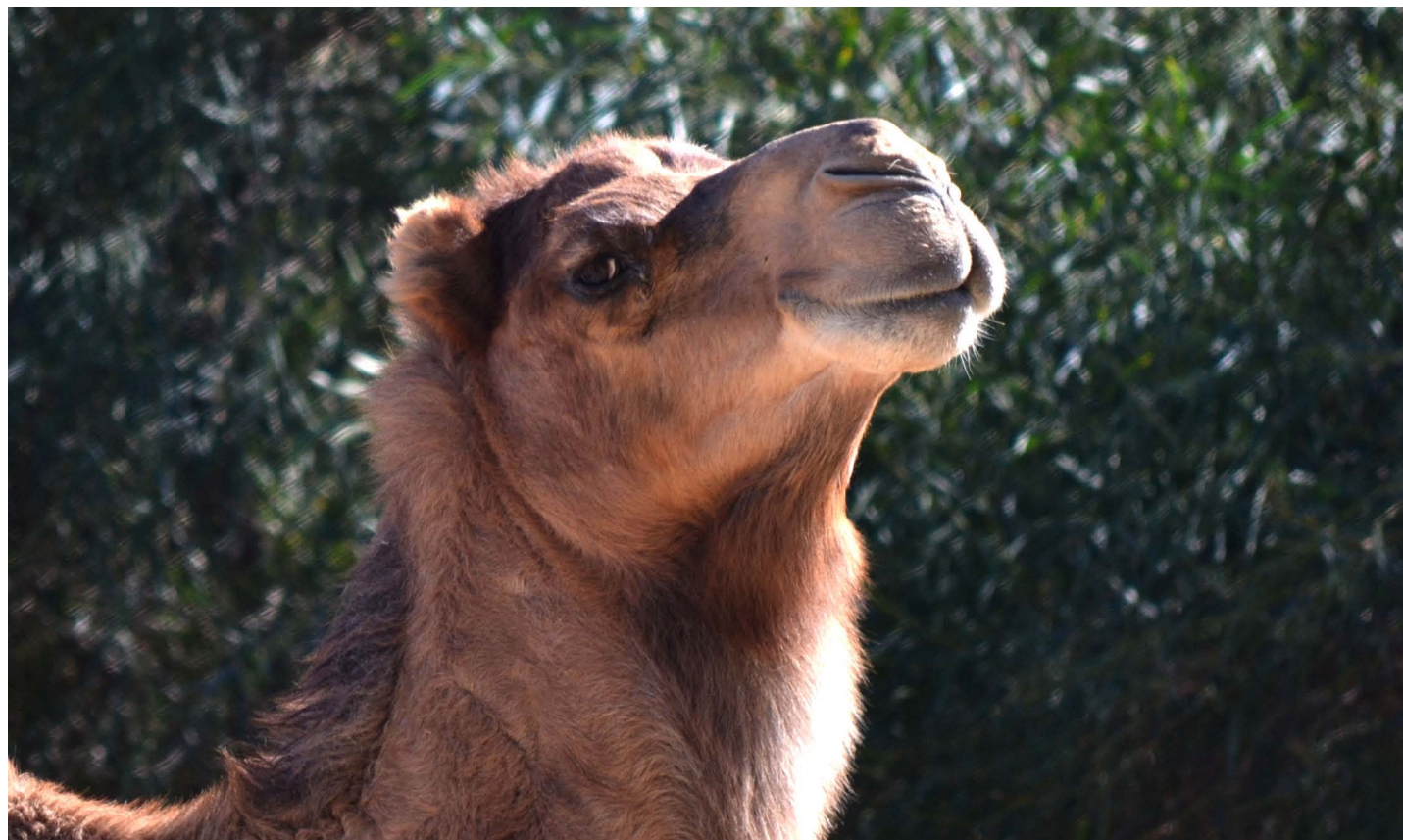
2013 began with much anticipation about the Next Generation Science Standards (NGSS). For the first time since 1996, the National Science Education Standards are being revised. This endeavor presents an exciting opportunity for formal and informal science educators alike to contribute to the important process of considering not only what science content is delivered to students in kindergarten through high school, but also how the language driving that content is presented to teachers.

When the final public draft of the NGSS was released in early January, stakeholders from around the country reviewed the content and provided feedback to the developers. Recognizing this critical moment in science education history, AZA organized a joint review of the NGSS. Representatives from all US AZA-accredited facilities were invited to attend in order to provide a comprehensive response to the standards on behalf of zoos and aquariums. Approximately 40 educators from AZA-accredited facilities participated in an online group discussion, resulting in input specific to sections on life science, climate change and engineering concepts. The group was keenly aware that field trips to zoos and aquariums are a significant way to help students make real-life connections. We also recognized

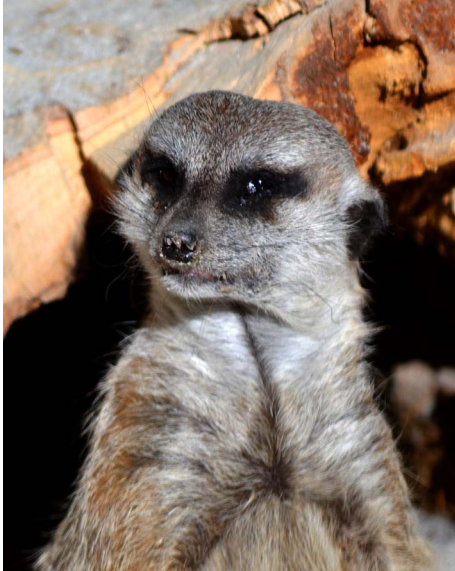
the value of providing professional development opportunities for the teachers who will soon be expected to implement the new science education standards. Each state will determine independently whether their public schools will adopt the NGSS, meaning some zoos and aquariums will be affected more directly than others.

A final version of the NGSS is expected to be completed in Spring 2013. At that time, teachers will need to become familiar with the new standards quickly in time for the 2013-2014 school year. Aquariums and zoos will play an important role in providing professional development for teachers, specifically regarding the standards relating to the environment. I encourage you to start planning ways that your facility can provide training in this area. Perhaps you will find inspiration in this issue of the newsletter for incorporating theatrical techniques into your teacher training and other standards-linked education programs!

For more information about the NGSS, please visit <http://www.nextgenscience.org/>.



Program Animals



What started as an area of interest within the CEC, and found overlap with other committees such as the Animal Welfare and Research and Technology Committees is now on the verge of becoming something greater. The Program Animal Interest Group (PAIG) has been established as an official AZA group which will report through the CEC. Being recognized as a unit separate from the CEC allows the PAIG to reach many more people, including educators who are not CEC members as well as animal program leaders, animal keepers, and field researchers .

Now the work begins. Questions about governance, reporting structure, and appropriate goals and objectives must be addressed. The PAIG has begun holding regular conference calls to discuss these issues and will meet in person at the AZA mid-year meeting in Charleston, SC. All are welcome! To begin receiving communications about the PAIG, please contact Nette Pletcher at npletcher@aza.org.

Another exciting way to share information about program animals is through the Program Animal Raring Information Systems (PARIS). The wiki now has pages for 198 species, and 36 institutions have volunteered to edit and add content to those pages. PARIS editors come from institutions throughout AZA - big and small, zoo and aquarium! PARIS has also received species rating sheets from 27 different institutions; each time an institution submits a rating sheet, our data gets better and better. Updated results have been posted on the PARIS wiki (www.zooparis.wikispaces.com - click on the "Rating Results" link on the left-hand side of the screen to download the results.) To add your institution's information, simply download a fresh rating sheet

from the front page of the PARIS wiki, fill it out, and email it to Stephanie Eller at eller.stephanie@phillyzoo.org. Some tips for being a successful PARIS contributor are:

- Take smaller bites! Don't try to do everything each time you log in.
- Take your time the first couple of times you get on and be slow to enter info, look around and see what others have been doing.
- Set a goal. Commit to providing data on three animals.
- Encourage other colleagues to participate. We need a wide range of zoo professionals to respond so that the answers are clear as possible.

In addition to helping out your fellow program animal colleagues, participation in PARIS could also win you a \$100 Visa gift card! We are holding a raffle for all participating institutions on July 1st, 2013. The winner will be able to use this prize to purchase new enrichment items, or perhaps to acquire a new enclosure, or even to throw a pizza party for their staff. The raffle currently has 79 entries from 40 different institutions. There are four ways to earn entries: 1) submit a completed rating sheet, 2) volunteer to become an editor to the wiki, 3) edit at least three pages of the wiki every month, and 4) add a new page to the wiki every month. That's a whole bunch of chances to win a free \$100!

PARIS is your resource if you have any questions about how (or even whether!) to manage a species in a program animal collection, and our pool of information is getting bigger and better every month. If you have any questions about or suggestions for PARIS, please don't hesitate to contact Stephanie Eller at eller.stephanie@phillyzoo.org. Stephanie is also the person to contact if you are interested in becoming a PARIS editor and/or would like to submit a completed rating sheet.

Jim Nemet reported that the Cleveland Zoo Study with Hedgehogs, Red- Tails and Armadillos was coming to a close. Data collection has finished and there had been a lot of interest at Cleveland Zoo about the results. Thanks to all the zoos that participated for doing their best to be involved in a very valuable research project!

Kate Manion from the Maryland Zoo in Baltimore reported that her research on program animals is coming to a close. Her study documented four different experiences using Black Footed Penguins (PA's) and investigated what guests are taking away from the experiences. Preliminary results show that all four methods have some effect on the guest experience, with a final analysis still to come.