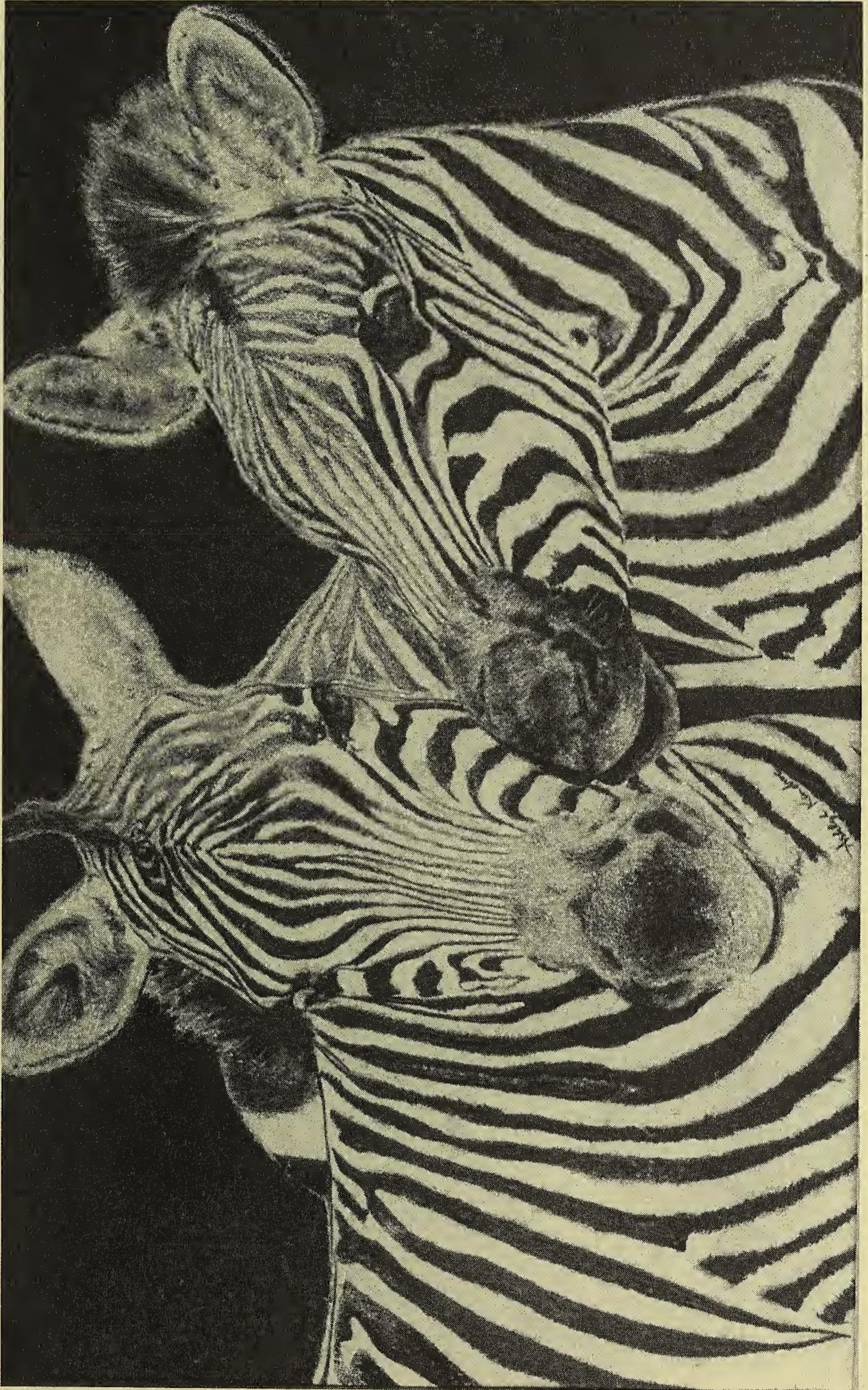


FORUM

ANIMAL KEEPERS'

SEPTEMBER 2010



The Journal of the American Association of Zoo Keepers, Inc.

ANIMAL KEEPERS' FORUM, 3601 S.W. 29th St., Suite 133, Topeka, KS 66614-2054

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September 2010
Vol. 37, No. 9

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Animal Keepers' Forum is published monthly by the American Association of Zoo Keepers, Inc., 3601 S.W. 29th Street, Suite 133, Topeka, KS 66614-2054. Ten dollars of each membership fee goes toward the annual publication costs of Animal Keepers' Forum. Postage paid at Topeka, KS.

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35th Anniversary - 1974 - 2009

MISSION STATEMENT

(Revised April 2009)

American Association of Zoo Keepers, Inc.

The mission of the American Association of Zoo Keepers, Inc. is to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.

*This month's cover features a pencil drawing of two common, or plains zebra (*Equus burchelli*) by Ashleigh Kandrac of Lion Country Safari in Loxahatchee FL. Of the three zebra species, (*Equus burchelli*), is the most common and is at a lower risk status. The mountain zebra (*Equus zebra*) and Grevy's zebra (*Equus grevyi*) are both endangered. The common zebra occurs in south and east Africa in grasslands, savanna and light woodlands where they will spend up to 80% of their time grazing. Perhaps the most recognizable feature of a zebra is its stripes. Theories behind the function of the stripes include predator confusion, fly repellent, and complex social recognition and organization. The one clear fact about the zebra's stripes is that each individual has its own unique pattern. The social interactions of zebra can be captivating and complex. Males will engage in brutal battles for dominance, others will pair up to mutually groom one another, and large herds will move together to migrate. Communication among zebra generally involves vocal squeals, grunts, loud barking calls, and posturing. A social unit of zebra generally includes a stallion, his harem of mares, and their offspring. Gestation is between 360 – 396 days. Young foals are cared for exclusively by their mother and are generally most vulnerable to predators in the first moments of their lives. For this reason, a newborn foal will stand and take its first steps only minutes after being born. A mother zebra is especially protective over her young and will often shield her young from any danger. Foals are generally weaned at around 8 to 12 months of age. Afterward, zebra rely solely on grasses and vegetation for nutrition. Thanks, Ashleigh!*

Articles sent to *Animal Keepers' Forum* will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for *AKF*. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 785-273-9149; FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com< If you have questions about submission guidelines, please contact the Editor.

Deadline for each regular issue is the 10th of the preceding month.

Dedicated issues may have separate deadline dates and will be noted by the editor.

Articles printed do not necessarily reflect the opinions of the *AKF* staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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BFR Website: <http://aazkbfr.org>

Scoops & Scuttlebutt



AAZK Behavioral Husbandry Committee Announces 2010 Contest Winner!

The AAZK Behavioral Husbandry Committee is grateful to all of the authors who submitted articles to the Animal Keepers' Forum Enrichment Options and Training Tales Columns this year. These columns would not exist without your contributions. Thank you for sharing your techniques and talents with the Forum audience!

We are happy to announce the writing incentive program winner for 2010: Congratulations to Kim Kezer from Zoo New England, and author of the article "Building Bridges: How to Select, Condition and Use a Bridging Stimulus"! She was selected by the AAZK Behavioral Husbandry Committee for a complementary registration to the 2010 AAZK conference in Philadelphia.

Don't miss out on your chance to potentially be selected next year. Submit your training and enrichment articles into the Training Tales or Enrichment Options columns today! Please go to AAZK Behavioral Husbandry Committee pages on the website for a complete listing of article guidelines. Articles can be emailed to the following:

Enrichment Options articles to Julie Hartell-DeNardo, jshartell@yahoo.com
Training Tales articles to Jason Pratte, catlordj@aol.com

Contest rules: The AAZK Behavioral Husbandry Committee will choose one article from those published between July 2010 thru May 2011 in the AAZK Animal Keepers' Forum Enrichment Options or Training Tales columns to be awarded a FREE 2011 conference registration. Only one registration will be awarded per year. If the selected paper has multiple authors, designation of the award among these authors is not the responsibility of AAZK or the AAZK Behavioral Husbandry Committee. The winning registration is non-transferable (only the author/co-author of the selected paper can utilize the award). If an author of the chosen paper is unable to attend the conference another paper will be selected by the Committee.

Congratulations to the 1st Recipient of the Bowling for Rhinos Conservation Resource Grant

Please join us in congratulating the International Rhino Foundation (Susie Ellis, PhD., Executive Director) on being the first recipient of the Bowling for Rhinos Conservation Resource Grant. This grant, established with funds generated through Bowling for Rhinos, is made available annually to projects dedicated to rhino conservation. Selection of the successful candidate is made by the AAZK Board of Directors following evaluation and recommendation by the AAZK Conservation Committee. The full amount of \$1,835.71 will be awarded to purchase radio collars for use in the translocation of Greater one-horned rhinos to India's Manas National Park in late 2010. These translocations are part of Indian Rhino Vision 2020, a multi-organizational conservation project dedicated to expanding the number and range of this species.

From the AAZK Awards Committee

The Award Committee would like to thank Carolyn Horton, Memphis Zoological Park & Aquarium, for her 23 years of service on the committee. Evaluating award nominees along with her comments and suggestions when developing new awards were greatly appreciated. Thank you Carolyn! Dennis Vogt of Mesker Park, Evansville, IN, replaces Carolyn on the Awards Committee.

Additionally, Michele Schireman has replaced Anna Michel on the committee. Both Anna and Michelle are from the Oregon Zoo in Portland, OR. ~ Janet McCoy, Awards Chair

Invitation to Participate in Big Cat Survey

I am currently seeking any zoo staff who work with big cats to participate in a brief, anonymous, online questionnaire. The study is being conducted as part of my PhD research through the School of Psychology, Social Work, and Social Policy at the University of South Australia. My research involves an exploration of different handling and training methods for big cats in captivity and this project is focused on exploring the experience of zoo staff who currently work with these animals. I believe that such staff will be able to shed valuable light on the benefits and limitations of these practices. If you are presently working with big cats (including tigers, lions, cheetahs, jaguars, leopards, cougars, and/or snow leopards) and would like to participate, please go to the following link for more information and to complete the questionnaire: <http://www.unisanet.unisa.edu.au/TellUS2/SurveyForm.asp?ID=7395>. It should take about 15 minutes to complete. If you have any questions, or would like more information about the study, please feel free to contact me directly: Monika.Szokalski@unisa.edu.au <<https://mail.unisa.edu.au/owa/UrlBlockedError.aspx>> . Thank you for your time and consideration. ~ Monika Szokalski, PhD Candidate, School of Psychology, Social Work, and Social Policy, University of South Australia - Monika.Szokalski@unisa.edu.au

New Material Added to Member's Only Section of Website

If you haven't checked out the Member's Only section of the AAZK website recently, you're in for a treat. Downloadable pdfs of all of the papers, posters and workshops from the 2006 (Chicago), 2007 (Galveston), 2008 (Salt Lake City) AAZK Conference and the 2009 Joint AAZK/ICZ Conference (Seattle) are now available.

The section now contains a listing of all AAZK Chapters (searchable by State), a listing and links to all AAZK Institutional and Commercial Members as well as Conservation Partners; downloadable pdfs of past columns including People Skills for Animal People and The Water Column; the Australasian Society of Zoo Keeping Husbandry Guidelines; The Keeper's Role in Zoo Animal Health by veteran zookeeper Judie Steenberg; Zoonotic Diseases Handbook; Zoonotic Disease Transmission and Bloodborne Pathogens; past and current editions of AAZK INSIGHT e-newsletter; the International Congress on Zookeeping Newsletter; information on how to form an AAZK Chapter; and information on all AAZK Committees.

Remember, in order to access this portion of the website, you must register as a user. This is a simple process, just follow the prompts. Please remember that changing an address on the Member's Only section does not change your address for receipt of your monthly issue of Animal Keepers' Forum. To change your address on the AAZK database for mailings, either go to the link AAZK homepage, send an email to AO at aazkoffice@zk.kscoxmail.com, or call to leave new contact information at 785-273-9149.

All "user applicants" for the Member's Only section must be approved as valid AAZK members and this is done each weekday from AO. There is lots of good information and resources, so if you haven't registered yet, do so soon and don't miss out on these special features available only to active AAZK members.

Internet Searching for a Cause

What if AAZK earned a penny every time you searched the Internet? Or how about if a percentage of every purchase you made online went to support our cause? Well, now you can! GoodSearch.com is a Yahoo-powered search engine that donates half of its advertising revenue, about a penny per search, to the charities its users designate. Use it just as you would any search engine, get quality search results from Yahoo, and watch the donations add up! Each search generates a penny for AAZK - and that can add up quickly! Here is an example of how much AAZK can earn: 100 supporters each search 4x a day = \$1460/year; 500 supporters each search 4x a day = \$7300/year; and 1000 supporters each search 4x day = \$14,600/year

So get in the habit of searching using GoodSearch.com and support AAZK, Inc.!

Editor's Note: We would like to thank all the members of the New Orleans AAZK Chapter located at the Audubon Nature Institute in New Orleans, LA for their generous donation that is helping to underwrite this issue of *Animal Keepers' Forum*.

The New Orleans Chapter is comprised of members from three different facilities, including the Audubon Aquarium of the Americas and the Audubon Insectarium, in addition to the Audubon Zoo. Our membership is comprised of not only animal keepers, but zoo administrators, volunteers and interns. We meet monthly to discuss upcoming events and fundraisers.

We take special pride in the region we come from and this year will be contributing money specifically to local causes, such as Save Our Lake. Past conservation efforts have included giving funds to various organizations in support of species such as Gopher Frogs, Orangutans, Asian Elephants and many others.

Being in New Orleans, we have unique opportunities to raise funds in a city that is vibrant and giving. Some of our annual activities include selling walking sticks at the zoo's annual Swampfest, continued participation in the Eco-Cell program, and education activities for the zoo's

Earthfest. This year's Earthfest involved a special interactive activity using the Seafood Watch Program to teach about sustainable fishing. We feel that this topic is of special importance considering that the fishing industry is so important to our region.

In addition to conservation efforts, our Chapter also supports continuing education for all of our members. We have sponsored numerous members to go to all types of conferences and become members of all types of related organizations. We have also sponsored guest speakers to come and speak to our zoo staff about animal issues, in both the captive and wild settings. Most recently, we sponsored Active Environments to spend several days at our zoo providing valuable information about animal training and husbandry techniques.

We hope to continue our long tradition of fun and exciting events that both educate the public and contribute to conservation. With such passion and enthusiasm, we are sure to go along way in the future.

Visit the New Orleans AAZK Chapter website at <http://nolaaazk.com/historyofaazk.aspx>



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From the Executive Director

On July 1 of this year, a devastating incident occurred at the Toledo Zoo when the elephant manager, with three decades of experience was attacked by a young bull elephant and received critical, life-threatening injuries.

What followed and was played out in the media subsequent to the event was a full frontal, sensationalized attack on the Toledo Zoo, their elephant program and by association, the animal keeping profession, by People for Ethical Treatment of Animals (PETA). The following is a quote from a letter, distributed in the form of a Press Release, to the President of the Toledo Zoo Board of Directors.

“The Toledo Zoo has everything to gain and nothing to lose by following the lead of progressive zoos that have switched to protected contact,” says PETA Director Debbie Leahy. “The elephants would no longer live in fear of bullhooks and the zoo keepers who use them, the keepers wouldn’t have to fear life-threatening reprisals by frustrated elephants who are fed up with being mistreated, and PETA would help foot the bill.”

To view the full release: <http://www.peta.org/mc/NewsItem.asp?id=14973>

First and foremost, if you were compiling a list of “progressive zoos” the Toledo Zoo would always shake out near the top. If PETA had performed a smidgen of background research, it would have been apparent that Toledo Zoo’s animal care, veterinary management and behavioral programs are both progressive and modeled by other zoological facilities. Secondly, to imply that simple cost (not informed dialogue and other considerations) dictates keeper safety and animal management in this or any other facility should be offensive to anyone in this profession.

Please do not get me wrong. There is a place for PETA in our profession and that is to monitor the ethical treatment of the exotic animals, including the highly intelligent and social elephants housed and managed in our facilities. Attempting to dictate policy and drive change in the media by utilizing an injurious event is absolutely below the belt.

The statement in the press releases regarding the use of “bullhooks” means PETA does not comprehend and evidently makes the conscious choice not to understand, facets of elephant management in free or protected contact. As for the statements: “The elephants would no longer live in fear of bullhooks and the keepers that use them...” and “...frustrated elephants who are fed-up with being mistreated”, well it would be too easy, so I will keep my comments to myself.



Instead I will extend my heartfelt thoughts to Don Redfox and his family, wishing him a complete and healthy recovery and also to Dr. Baker and the staff at the Toledo Zoo, who in their daily decisions and actions, enrich and improve the lives of the animals under their care, as keepers everywhere do as well.

A handwritten signature in black ink, appearing to read "Ed Hansen", written over a horizontal line.

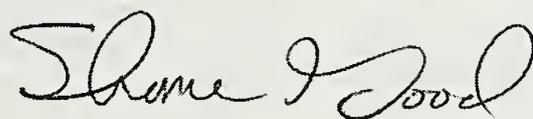
Ed Hansen, AAZK Executive Director

From the President

One of the realities of serving as President of both the AAZK and ICZ is that whenever there is a keeper-related accident in the zoo industry somewhere in the world, colleagues pass the information on to me. Rarely do I know or have even met the keeper involved. However, recently I received word that Don Redfox, a 30-year veteran of elephant management at the Toledo Zoo, suffered life-threatening injuries from one of the elephants under his care. (At the time of publication, this incident is still being investigated and the exact circumstances of the incident remain unclear.) I don't know Don well, but I have met him on several occasions, both having traveled the Ohio turnpike to visit our respective zoos many times over the years.

Personally, I know enough about elephants to understand how little I actually know about managing them in a zoo environment. However, when it comes to elephant keepers, I think I have some expertise, simply because some of my best friends happen to be elephant keepers. One of the things I happen to know about these elephant keepers is that even the most experienced have questions from time to time. Another thing I know; when experienced elephant keepers need information, encouragement, advice, and answers, one of the people at the top of their list to call is Don Redfox.

To fully appreciate a zoo keeper's career, we must look at the entire body of work. It can never be defined by one event. Zoo keepers are bonded by the realities of working with dangerous animals, and we often seek our veteran keepers in times of crisis. This time, one of the veteran leaders in our industry needs our heartfelt thoughts. Don, you have always had our utmost respect, and now you have our sincerest wishes for a quick and complete recovery.



Shane Good, AAZK President

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Call for Papers for Dedicated Issue of AKF

We are looking at putting together a special issue of *Animal Keepers' Forum* on Climate Change and Its Effects on Animal and Plant Species. We will be working with Polar Bears International on arctic global warming topics and with authors from www.AmphibianArk.org on issues affecting the amphibian taxa. We invite other interested authors to submit papers dealing with some aspect of climate change, research into species' decline, or other topics germane to this issue. You may find submission guidelines for *AKF* at www.aazk.org or contact the editor at akfeditor@zk.kscoxmail for information. We are looking at trying to produce this issue in December 2010 if we receive sufficient material.

◆ **Deadline for submission of articles is 1 October 2010** ◆

Coming Events

Post Your Coming Events Here
email to: akfeditor@zk.kscoxmail.com

September 11-16, 2010 - AZA 2010 Annual Conference. Hosted by the Houston Zoo, Houston, TX. See http://aza.org/ConfWork/AC_Intro/index.html for further information.

September 7-12, 2010 - National AZAD Conference Hosted by Brookfield Zoo, Brookfield, IL USA. Call for Papers--Share your ideas by presenting a paper addressing ways people can work to conserve our Earth and all the gifts it gives us. For further information see <http://www.azadocents.org/>

September 27-30, 2010 - AZA Orangutan SSP® Workshop - To be held at the Denver Zoo, Denver, CO. Theme: "Conservation & Husbandry Innovations for the New Decade" Climb Up to a Higher Branch at the 4th Annual Orangutan SSP® Husbandry Workshop! - Focused on the care and management of orangutans, the workshop will bring together orangutan caregivers and managers, researchers, and field biologists to share the most current information on husbandry, conservation, and emergent issues pertaining to captive and wild populations of orangutans. Workshop registration fee is \$125. The workshop will be held in conjunction with the Orangutan SSP® Masterplan meetings which will take place on Sunday, September 26, 2010. For additional information contact Ronda Schwetz at rschwetz@denverzoo.org. Online registration at www.denverzoo.org. Pre-Conference Trip to Cheyenne Mountain Zoo Sunday, September 26—more details soon!

September 28-October 2, 2010 - 20th International Zoo Educators' (IZE) Biennial Conference - at Disney's Animal Kingdom, Orlando, FL. For more information, please visit <http://www.izea.net>

September 30 - October 3, 2010 - The 32nd Annual Elephant Manager's Association Conference - Hosted by the Pittsburgh Zoo & PPG Aquarium. Conference will be held at the Holiday Inn Hotel and Suites Pittsburgh-Allegheny Valley-RIDC. A room block is reserved. Call (412) 963-0600 for reservations. More details will follow on Facebook, in AZA and EMA publications and websites. Contact Terry Deluliis at (412) 365-2500 with questions.

October 3-7, 2010 - The Aquarium and Zoo Facilities Association's 17th Annual Conference - To be hosted by the Saint Louis Zoo in Saint Louis, MO. For further program and registration information, please see www.azfa.org or call Sue Stroud at (314) 646-4616; Fax (314) 646-5531; email at stroud@stlzoo.org

October 14-15, 2010 - Passerine Workshop Hosted by Zoo Atlanta, Atlanta, GA. The intent of this workshop is to increase knowledge for keepers/newer managers on basic husbandry, breeding, and daily management of various passerine species and sharing of information between institutions. Please contact Sprina Liu, sliu@zooatlanta.org, for more information.

October 14-20, 2010 - 30th Annual AZVT Conference. The Association of Zoo Veterinary Technicians will meet at the Los Angeles Zoo in Los Angeles, CA. If you would like more information please visit www.azvt.org or contact Peter Flowers @ zootekkie@gmail.com or call (323) 644-6051.

October 17-21, 2010 - 65th Annual Conference of WAZA. To be held in Cologne, Germany. See <http://www.waza.org/en/site/home> for further information.

November 10-13, 2010 - The 6th Annual Zoological Association of America Conference - In Lafayette, LA. Information and registration forms are available at www.zaa.org <<http://www.zaa.org/>> . For more information, contact Matt Oldenburg at (337) 837-6139 or MOldenburg@ZooOfAcadiana.org.

December 6-10, 2010 - Training and Enrichment Workshop for Zoo Animals - Oakland Zoo, Oakland, CA. For information contact Active Environments, Inc. at 805-737-3700 or email Gail Laule at moonshadowe@earthlink.net or Margaret Rousser at margaret@oaklandzoo.org

February 16-19, 2011 - 19th Annual Conference International Association of Avian Trainers and Educators ~ "Pittsburgh 2011: Innovation and Inspiration" Hosted by National Aviary in Pittsburgh, PA USA. Papers, posters, site visits, vendors and workshops. Topics will include avian behavior, training, husbandry, conservation, education, enrichment and show presentation/production. For more information about the conference visit www.IAATE.org

March 2-4, 2011 - Association of Professional Wildlife Educators. To be held at the Frank Buck Zoo, Gainesville, Texas. Watch <http://www.apwe.org/> for details as they become available.

March 8-11, 2011 - Zoos and Aquariums Committing to Conservation. Hosted by the Woodland Park Zoo, at Sheraton Seattle Hotel, Seattle, WA, USA. Icebreaker planned for evening of March 7th. Registration now open at www.zoo.org/zacc

May 15-18, 2011 - 2011 Rhino Keeper Workshop. To be held at Fossil Rim Wildlife Center, Glen Rose, Texas. For further info contact: adam.felts@columbuszoo.org

Upcoming AAZK National Conferences

2011 - San Diego, CA - August 24-28
2012 - Syracuse, NY - September 23-27
For information on upcoming AAZK conferences, watch the AAZK website at www.aazk.org

AAZK Announces New Members

New Professional Members

Erica Muellle and Allison M. Bell, **Turtle Back Zoo (NJ)**; Kelly Cochran, Lindsay Rasmovich, Irene Egan, Taryn Beasty and Meg Tedeschi, **Bergen County Zoological Park (NJ)**; Meredith Dorfner, **Philadelphia Zoo (PA)**; Karen Abbott, Christina Scott, and Victoria Snoberger, **Smithsonian's National Zoological Park (DC)**; Erin Fitzgerald, **Maryland Zoo at Baltimore (MD)**; Karen Shanahan, **Zoo Miami (FL)**; Emily Hines, **Naples Zoo (FL)**; Laura Smyth, **Knoxville Zoo (TN)**; Sarah Kirkman, **Akron Zoological Park (OH)**; Steve Mallory, **Boonshoft Museum (OH)**; Megan Dudek, **Brookfield Zoo (IL)**; Michelle Hatwood, **Phoenix Zoo (AZ)**; Marvin Wiser, **Alameda Park Zoo (NM)**; Amy Herzlich, **Innovative Pet Therapy (NV)**; Colleen May, **Wildlife Safari (OR)**; Jacquie Coleman, Jackie Enberg and René Lanctot, **Assiniboine Park Zoo (Winnipeg, Ont., Canada)**. We do not list members who do not list their facility on their membership application/renewal (There were four for September)

New Institutional Members

Museum of Science, Boston, MA
Lew Stevens, Curator

Behler Chelonian Center, Ojai, CA
Eric Goode, Director

Renewing Institutional Members

Amarillo Zoo, Amarillo, TX
Larry Offerdahl, Director of Parks and Recreation

New Contributing Members

Tina Hutchinson, Docent
Philadelphia Zoo, Philadelphia, PA

Renewing Contributing Members

Linelle Smith
Jenkinson's Aquarium
Point Pleasant Beach, NJ

Gretchen Ziegler, Zoo Manager
Sequoia Park Zoo
Eureka, CA

Renewing Commercial Members

Premium Nutritional Products
Mission, KS
David R. Morris, President

Check Out AAZK on Facebook

Did you know that AAZK has a group page on Facebook? With more than 500 users across the globe, Facebook is indisputably the largest and fastest growing social network on the web. Facebook allows users to add friends and update them about events that occur in their lives through updates, posts, and even photo and video sharing. Companies and organizations use this social networking tool as a highly effective platform for promotion. As a result, zoos and conservation organizations worldwide have now have an effective method to update members daily.

Through Facebook, AAZK now has an additional tool to update members on zoo related news, current events, BFR, membership information, and general activities.

If you are a member of Facebook, you can add AAZK to your list of groups by going to: <http://www.facebook.com/group.php?gid=123329145596&ref=fn>.



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2010 AAZK Award Recipients

The following are recipients of awards presented at the 2010 AAZK Conference held in Philadelphia, PA and hosted by the Philadelphia Zoo and the Greater Philadelphia Chapter of AAZK. The *Certificates of Recognition*, the *Certificates of Appreciation* and the *Chapter of the Year* are given by the AAZK Board of Directors. The *AKF Excellence in Journalism Awards* are selected by the journal's editorial staff. All other listed awards are determined by the AAZK Awards Committee from nominations received from the membership.

Jean M. Hromadka Excellence in Animal Care Award

The Predator Ridge Team (Mike Murray, Andrew Rowan, Heather Genter, Laura Morrell and Shaina Aguilar), Denver Zoo. This award is based on their outstanding efforts working together daily in a rotational exhibit with three species of social carnivores (hyena, lions, wild dogs). The five keepers have excelled in the areas of animal husbandry, behavior management, interaction with visitors, research and working interdepartmentally to help achieve Denver Zoo's mission "Secure a better world for animals through human understanding". Also noted was their combined activities and involvement helping them make significant contributions to conservation and education.

Certificate of Excellence in Exhibit Design Renovation Award

Utah's Hogle Zoo, Salt Lake City, Utah for the renovation of the Black-Footed Cat exhibit that resulted in the birth of an offspring of this endangered cat. The institution's keepers and staff have been distinguished for their outstanding efforts in providing an enriching experience for both the black-footed cat and the public.

Mazuri Animal Nutrition Award

Aaron Jesue, North Carolina Zoo, for his outstanding work collecting, compiling, organizing and sharing information on the health and behavioral impacts of a more natural diet high in fiber and low in starch and sugars on the zoo's gorillas.

Certificate of Merit in Conservation Award

Chimpanzee Keepers (Beth McChesney, Becky Kloepfer, Kelly Murphy), North Carolina Zoo, for their outstanding work developing the "Kendall Project" and website that is working to raise awareness of the status of wild apes while coming to the aid of some of their captive counterparts.

Certificates of Recognition

Gisela Wiggins, North Carolina Zoo, for serving as the Bylaws Committee Chair

Mark Levin, for serving as the AAZK Historian

Jacque Blessington, Kansas City Zoo, for her efforts in organizing the archives and storage areas at AAZK Administrative Offices in Topeka, Kansas

Kim Wanders, Kansas City Zoo, for her efforts in organizing the archives and storage areas at AAZK Administrative Offices in Topeka, Kansas

Catherine Vine, Philadelphia Zoo, 2010 National AAZK Conference Co-Chair

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Distinguished Service Award

Greater Philadelphia Chapter of AAZK, 2010 AAZK National Conference Host Chapter

Chapter of the Year

Detroit Chapter of AAZK, Detroit Zoo

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Excellence in Journalism Awards

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Beth Stark-Posta, Dept. of Behavioral Husbandry & Research, Toledo Zoo, Toledo, OH
C. L. Daigle, Animal Behavior and Welfare Group, Dept. of Animal Sciences,
Michigan State University, East Lansing, MI

***“Assessing Immediate and Long-term Effects of Environmental Enrichment:
Implications for Welfare in African Clawless Otters (*Aonyx capensis*)”***
November 2009 AKF

Angela Binney, Animal Keeper, Disney’s Animal Kingdom, Lake Buena Vista, FL
Co-Editor Training Tales

Kim Kezer, Animal Training Advisor, Zoo New England, Boston, MA
Co-Editor Training Tales

“Building Bridges: How to Select, Condition and Use a Bridging Stimulus”
March 2010 AKF

Chris Crowe, Bird Keeper
National Zoo’s Conservation & Research Center, Front Royal, VA

“Artificially Inseminating White-naped Cranes”
April/May 2010 AKF dedicated to Avian Husbandry

Jennifer Brink, Keeper II, Zoo Atlanta, Atlanta, GA
Katie Bagley, Keeper II, Zoo Atlanta, Atlanta, GA

***“Development of an Aviary Training Program:
Enhancing the Daily Management of Zoo Atlanta’s Bird Collection”***
April/May 2010 AKF dedicated to Avian Husbandry

Stacy Johnson, Animal Keeper, Disney’s Animal Kingdom, Lake Buena Vista, FL
Angela Matthews, Animal Keeper, Disney’s Animal Kingdom, Lake Buena Vista, FL

“Training and Enrichment Advances for a Chinese Alligator at Disney’s Animal Kingdom”
January 2010 AKF

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Bob Thornton, Assistant Lead Keeper, Lincoln Park Zoo, Chicago, IL
Colleen Lynch, Curator, Lincoln Park Zoo, Chicago, IL

“Puppets: Construction and Use for the Hand-rearing of Birds”

April/May 2010 *AKF* dedicated to Avian Husbandry

“Successfully Managing a Mixed-Species Free-Flight Aviary”

April/May 2010 *AKF* dedicated to Avian Husbandry

Paula Kolvig, Assistant Curator, Moody Gardens, Galveston, TX

Heather Leeson, Biologist III, Moody Gardens, Galveston, TX

Jeana McDowell, Biologist I, Moody Gardens, Galveston, TX

Chris St. Romain, Biologist I, Moody Gardens, Galveston, TX

“Hand-Rearing Caribbean Flamingos (*Phoenicoptuerus ruber*) and Chilean Flamingos (*Phoenicoptuerus chilensis*) Chicks at the Birmingham Zoo”

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Okapi

(Okapi johnstoni)

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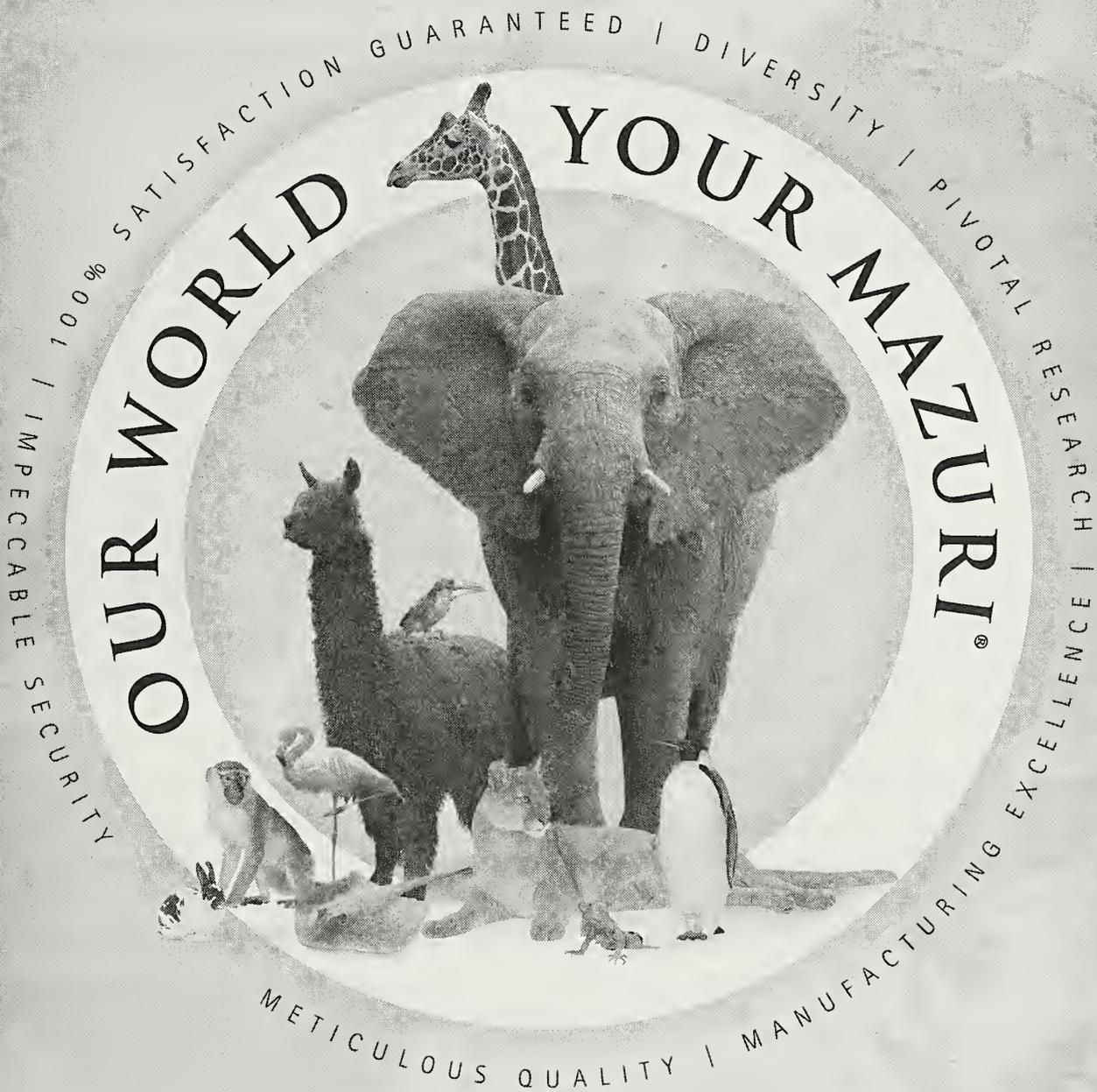
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Training Tales...



Where you can share your training experiences!

Training Tales Editors – Jay Pratte, Omaha's Henry Doorly Zoo; Kim Kezer, Zoo New England; and Angela Binney, Disney's Animal Kingdom

Beat the Heat: Our Top 10 Summer Survival Training Tips

By

Angela Binney, Behavioral Husbandry Committee and Animal Keeper, Disney's Animal Kingdom

And

Philip Sigler, Animal Keeper, Disney's Animal Kingdom

We are deep into the dog days of summer with record highs this year. With heat waves into triple digits in many parts of the country, it is no wonder some of our animals have been a bit lackadaisical about their training sessions this season. As you are counting the weeks until the arrival of cooler weather, consider beating the heat with these animal training tips for surviving the summer slump.

10. Timing is everything: Train in the cooler part of the day (the earlier the better usually). Gauge sessions around animals' activity budgets (don't train when they usually nap). It's already difficult to get cooperation from some animals during the uncomfortable temperatures of summer, so try to do it as the animals are just waking up, or when they shift in or out so that you are working with their schedule. Don't wait until they've had breakfast and they are just settling in for a long summer nap to start a training session.

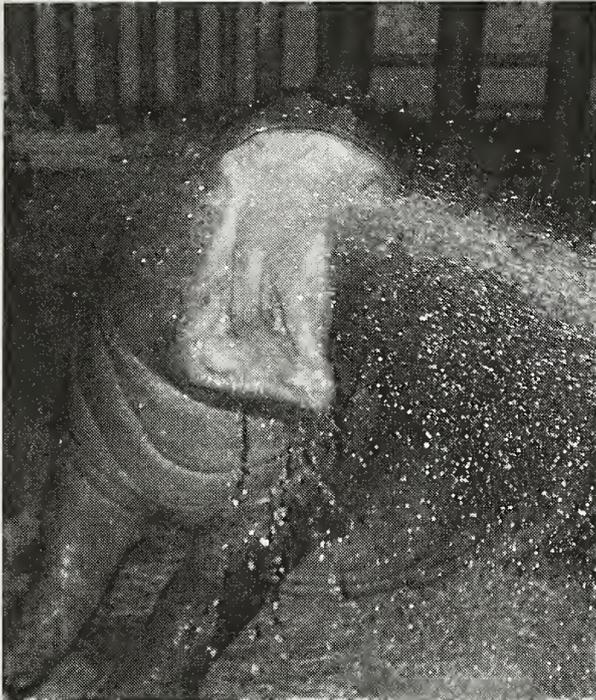
9. Made in the shade: Train in a cool place (shady areas, the barn, by a fan, etc.). We all know what a big difference it makes to sit under an umbrella instead of lying right in the sun when we spend the day at the beach, so it stands to reason that our animals can tell the difference as well. Train indoors or in shady areas, and if your training chute is out in the open then consider placing temporary cover over it to provide shade and make it more comfortable during the summer months.

8. Frozen Fun!: Frozen treats are often used as fun enrichment for many animals, so try using it as a cool reinforcement option for training sessions as well. Frozen items are refreshing and items frozen in a small cube of ice can also help to hydrate hot animals. Take any coveted reward and try freezing it, either by itself (e.g. frozen grapes, a pinky mouse, etc) or in an ice cube. Large frozen items, such as ice blocks or piles of ice, can be used as shift rewards or as a bonus after a productive session.



Ice blocks are a cool way to reinforce shifting behavior or to use as a jackpot at the end of a great session. (Photo courtesy of Disney's Animal Kingdom)

7. Short and sweet: Avoid lengthy sessions that require a lot of attention and effort on extra hot days. Animals tend to focus best at the start of a session, usually because that is when they are most motivated. Their motivation may be less during hotter months due to the decrease in appetite that often accompanies this season. Therefore, pursuing a lengthy session of high repetition or lengthy endurance may not prove as successful as a shorter session. It is better to end a session while the animal is performing at its best than to train until it is bored or satiated. This is a good rule of thumb in any season, but especially during a heat wave.



Many animals enjoy a mist of cool water. Try using this as a reinforcer. (Photo courtesy of Disney's Animal Kingdom/Backstage Photo)

6. Get them wet: Many of the animals we train already have an affinity to water, so use this to your advantage. Asking a hippo to come out of the water in the heat of the day for a training session is not always easy, but if the hippo will be misted during the training session he can stay comfortable while training. If your animal naturally seeks water, either in pools, flowing water misters, take a few of your enrichment tricks and try to use these as behavioral reinforcement.

5. Plan for pests: Many species benefit from fly and ectoparasite repellent in the summer months. Don't wait for summer to train for the application of these products. Some positioning and desensitization to application procedures may be necessary and can be trained year round.

4. Refreshing rewards: Food reinforcement can take on a summer vacation feel. Keep things cool and refreshing with some cool juicy treats. For the

herbivores, try cold melon cubes, berries, cucumber slices or even sweet peas (or any approved juicy fruit or vegetable that can be chilled and served in bite sized pieces). Gelatin 'jigglers' can be made by mixing plain gelatin with less liquid than called for so that it sets thick enough to cut into cubes and use for training rewards. Use diluted fruit, carrot or green juices as a base for these jigglers (these are fabulous fresh if you have access to a juicer, or most stores carry pasteurized versions). Any approved hoofed stock diet item (grain, alfalfa, beet pulp, grated veggies, etc) can be mixed into gelatin cubes by just adding it before the mixture sets. Try meat or blood to flavor the gelatin for carnivores (ground or pureed in a processor). Animals that benefit from oral electrolyte solution in the heat of summer could be given small squirts as training reinforcement (assuming it is palatable). Unless medically necessary at full strength, try to get low sugar formulas or dilute the artificially flavored varieties to reduce exposure to additives and sugar syrups. As with any new food reward, let the animal first try new items outside of a training session to determine if they really like them before offering these to reinforce behavior.

3. Lighten up: Many species will gain weight in hot weather due to decreased activity and metabolism. Endothermic animals simply burn more calories in cooler weather than in the heat of summer. Summer weight gain can greatly impact motivation, creating a seasonal slump



Consider food preferences and fashion home-made gelatin treats to use as a refreshing summer reward. (Photo courtesy of Disney's Animal Kingdom/Backstage Photo)

that will continue into fall if weight is not kept in check. Track weight frequently throughout the year, using scale and body scoring measurements paired with consistent record keeping. Seasonal diet modifications may be necessary to curb the winter/summer weight roller coaster that can happen with drastic changes in ambient temperatures.



Komodo dragons respond well to training in warm weather. (Photo courtesy of Disney's Animal Kingdom/Backstage Photo)

2. Heat seekers: Focus on species that train better in the heat. Some animals, like reptiles or perhaps some desert dwellers, actually respond positively to a heat wave. Use this time to your advantage to train heat seeking animals, that might be less cooperative in cooler months. Your training success should soar with animals that increase their activity and metabolism when the weather turns hot. So capture this opportunity to make progress with these animals rather than fuss over those that have elected to take a summer sabbatical

when it comes to cue response on a hot day.

1. Take it easy: They don't call them the "lazy days of summer" for nothing! We all feel a bit lazy in the summer; the heat drains us of our energy, so consider this when working with your animals too. Concentration and cooperation may decrease dramatically on hot days, so this may not be the best time to train new behaviors or work on difficult behaviors, unless absolutely necessary. Instead use this time to try some warm weather enrichment, encouraging natural behaviors instead of hammering in those lengthy medical training sessions. If you are concerned about the animal 'forgetting' a behavior that is not trained for a few months, try doing a few short maintenance sessions throughout the summer to keep those behaviors from waning too much until fall.

Although some animals do not react much to seasonal weather changes when it comes to activity or training enthusiasm, many do have climate preferences that reflect in their zest (or lack thereof) for training interaction. You wouldn't expect to train a crocodile to jump out of the water when it is 50°F and it hasn't eaten in weeks (or months, depending on where it lives). In the same light, we should take into consideration that other animals really just want to lay in a pool of cool water or under a shade bush until sunset when it is 100°F out. Hopefully some of these tips will help get your training program through the end of summer and into those cool autumn breezes where breathing gets a bit easier and we all start to feel a bit more peppy!

Acknowledgement: Thanks to Christina Dembiec, AAZK Animal Behavioral Husbandry Committee member and Education Department Keeper at the Sedgwick County Zoo for sharing some of these summer training tips.

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FEEDING THE SPOONBILLS: From Nightmare to Dream

By Stephanie Smith, Animal Keeper
Disney's Animal Kingdom, Lake Buena Vista, FL

Background

African spoonbills (*Platalea alba*) and Roseate Spoonbills (*Ajaia ajaja*) are medium-sized wading birds equipped with a uniquely shaped bill that lends to their name. [Fig.1 and Fig.2] The African spoonbill is found over most of southern Africa. The Roseate spoonbill is the only New World spoonbill species and can be found along the Gulf coast of the United States, down into Central and South America. Both species feed on small fish and crustaceans by sweeping their slightly open bill back and forth in the shallow water as they walk along.

Disney's Animal Kingdom houses a mixed colony of both African and Roseate spoonbills in an outdoor, uncovered exhibit. The setting consists of a shallow-water area with beaches and islands that facilitate the natural wading lifestyle of the spoonbill. Our original population of 3.3 African spoonbills and 3.3 Roseates was made up of parent-reared, captive-bred and wild-caught, non-releasable birds. Our housing arrangement presented us with some significant husbandry challenges that were addressed by implementing a training program.



Figure 1. African Spoonbill. (Photo by Dan Calvin Johnson)



Figure 2. Roseate Spoonbill. (Photo by Stacy)

The Challenge

A common challenge with managing open exhibits is the influx of "freeloaders" or native species into the habitat. Over the last few years, we observed a gradual increase in the number of native White ibis (*Eudocimus albus*) calling our spoonbill exhibit "home". The population increase resulted in interspecific competition for food and space. The ibis' aggression towards spoonbills during feeds forced us to alter our feeding strategy several times. Originally, our collection birds were fed in bowls located throughout the exhibit. As the native ibis population grew, this method of feeding became ineffective. Collection birds were outnumbered and outcompeted by the visiting ibis. In response, we attempted hand tossing food, directly to the spoonbills. This resulted in only limited and short term success. The feral birds quickly overcame their apprehension of keepers and showed

their talent for intercepting any tossed food item. The aggressive and persistent behavior of the ibis and the impracticality of a species-specific feeder (given the competing species) required us to take a different approach. A new feeding strategy was needed.

The Plan

Our new strategy was to develop a training program that would facilitate successful feeding of our spoonbills, despite the presence of native birds. The first step was acclimation of our birds to hand feeding. While the African spoonbills were somewhat accustomed to taking fish by hand, when nesting, the new Roseates were reluctant to be in such close proximity to the keeper. Based on informal observations on consumption during feeds, we were able to set goals for food intake. This information allowed us to gradually move through the necessary approximations to achieve our goal. Incrementally, the birds were asked to come to closer and closer to the keepers before the food was presented and fed out. Spoonbills were initially tossed food if they came within five feet of the keeper. The accepted distance was gradually reduced as the spoonbill became more comfortable, until finally, they were required to take food from an outstretched hand. Occasionally, baiting was used to entice an animal to make another step. After approximately five months, our spoonbill colony was consistently accepting being fed by hand. This acclimation process was just the first step. We also had to change how we managed this feeding/training program.

The Players

Due to the size of the spoonbill group, it became clear that more than one keeper would be needed at each feed, to successfully maintain the hand feeding behavior. Adding keepers to the process would also offset any intra-specific aggression during feed sessions. Getting more help would entail introducing and training the entire 16-person keeper team fairly quickly. To facilitate keeper engagement in the new program and maintain clear communication on training progress, we tasked the team to come up with, what was for us, a different, primary identification system. While our birds were banded, we needed all the keepers to use their observational skills to note markers beyond the bands. Recognizing individual bird's "habits" and behavior within the social dynamics of the group would be a critical step in progressing with our training plan. Involving the keeper staff in a "naming" process created the starting point for team investment in the project. Through group discussion, voting, etc. the whole team arrived at some themes for "naming" the individuals in our colony. Our 3.3 Roseate spoonbills were named for characters in the movie *The Fifth Element*: Corbin, Dallas, Cornelius, Ruby, Lilu, and Laguna. The African spoonbills were named for 'things that are white', potato products, and a couple of unique submissions: Cotton, Snow, Pearl, Tater, Pringles, Sunny, and Platypus (keepers' favorite spoonbill misidentification by guests at the park).

The Game

Obviously, identification of individual birds within a colony is critical for monitoring training progress. In order to motivate our team towards this end and to maintain their involvement in the project, we implemented "The Spoonbill ID Game". This was a *Jeopardy*-like game that would hopefully make learning the individual spoonbills more enjoyable. The most important categories focused on transitioning from using a single identifier (bands) to names and more subtle individual markers. There was also some fun categories based on individual's behavior or interesting individual history, for example: "Which spoonbill is the oldest in our collection?" Engaging the team in this type of learning game facilitated their successful participation in the training plan.

The Plan: Phase Two

With our team fully engaged in our training plan and all the spoonbill hand-feeding, we progressed to the next step: stationing our birds. Stationing the birds helped us to establish a more controlled feeding opportunity. This in turn allowed for better monitoring of individual food consumption and reduced competition within the group. Based on historic monitoring of food consumption, we decided to limit each bird to 10 pieces of food per feed (three feeds per day). This increased training opportunities by keeping birds motivated to come to every feeding, rather than gorging

themselves at one feed and skipping the next. We needed to “assign” birds to particular areas of the exhibit. These “stations” were selected based on the individual bird’s historic feeding behavior and “tendency” to position itself in a particular area. Therefore, the assignments had minimal impact on the social structure of the group. Seven birds had stations on the left side of the exhibit and six birds had stations on the right side. [Fig. 3] Keepers were encouraged to learn and to train birds on both sides. This prevented the spoonbills from assigning themselves to a keeper instead of to their assigned side.



Figure 3. Keeper feeding at right-side location. (Photo by Stephanie Smith)

The criterion for the behavior was for each spoonbill to go to the assigned station in order to get a food “reward”. Just like training the hand-feeds, we used approximations and occasional baiting to get the birds to their stations. An object such as a rock or log helped to provide some birds a visual aid to define their station. [Fig. 4] As the spoonbill became more confident in obtaining their food, the native ibis were able to steal less and less of the food. The native population in the exhibit slowly decreased as the ibis found it more worthwhile to get food elsewhere. Within five months of the start of the program, all the spoonbills were successfully stationing for the feeding sessions.



Figure 4. Keeper feeding at left-side location. (Photo by Dan Calvin)

We also had to work around nesting season. Our spoonbills tend to nest at the farthest point from where they’re fed and we had to design new criteria for this time. Basically, the stationing group is fed first and half of a nesting pair usually comes to this feed. After the main feed, any nesting/sitting birds are then fed on the nests. When chicks are weaned or nests are pulled, all the birds readily come back to stationing. Our ability to hand feed parents at the nest allows us to start acclimating parent-

reared chicks earlier. [Fig. 5] We successfully integrated 3.0 roseate chicks into the program in 2009. This gave us a consistently stationing group of 16 spoonbills.

Conclusion

The development of a training program to station our spoonbills was a creative solution to the challenge of feeding our collection birds in the presence of native white ibis. While we still contend with the presence of a few native residents, the result of our successful program has been the enhanced management of the colony. Stationing has improved the efficacy of feeds and reduced food waste. It has also provided us with the foundation for further training, such as voluntarily stepping onto a scale for weights.

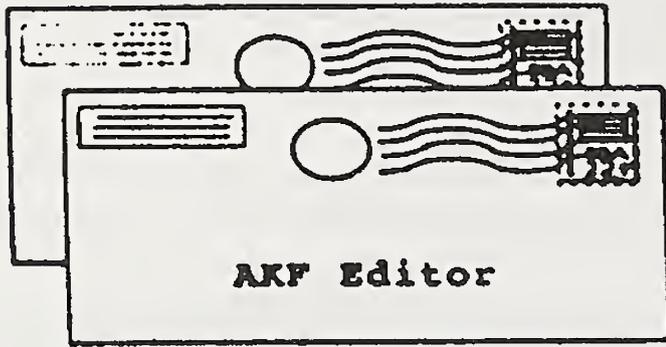
In addition to benefiting animal husbandry, our spoonbill training program also enhanced our keeper integration process and stimulated interactions with guests. The time commitment required to make the program successful forced us to look at new ways to motivate and engage the entire keeper staff towards a common training goal. Without the team's full support and participation, our program could not have been initiated or consistently maintained. Guests also enjoy watching the training/feeding sessions. They are engaged by the activity and are stirred to ask questions about the spoonbills and the feeding process. The nightmare that had been our spoonbill feeds has turned into a dream realized through training.



Figure 5. Roseate spoonbill "Cornelius" with chick. *(Photo by Dan Calvin)*

Acknowledgements

I would like to thank Dan Calvin and Stacy Johnson for their integral roles in the development of the program, Lisa Davis for her expertise and support, and our managers for their encouragement. We would like to send a special thanks to all our teammates for their hard work and dedication, without which this project couldn't have been done.



Letters to the Editor

Readers are welcome to comment upon material published in *Animal Keepers' Forum* through a Letter to the Editor. We welcome a free exchange of ideas benefiting the zoo keeping profession.

Dear Editor:

Rosalie Rust's article "Keeper Communication Skills" in *AKF* July 2010 is chock-full of important points, but missed the following additional ones.

1. The section on "Communicating with Managers" overlooks the important point that managers are perfectly capable of withholding vital information from subordinates for a variety of reasons (secretiveness, exercising power, forgetfulness, neglectfulness, etc.). Keepers should be mindful of the possibility that they are getting only a portion, if any, of the information they need from their managers. Keepers should be prepared to follow up with their managers and ask questions (probing, as needed) in situations where the provided information appears incomplete.

Since communication is a two-way street, it is just as important for managers to follow Rosalie Rust's point as it is for keepers; i.e., "The most important advice for communicating with your [staff] is 'just do it.' Not adequately communicating with [keepers] can cause problems in your relationship with them and in extreme cases could cause a dangerous situation to occur." (p. 313)

2. The sections on "Informal Visitor Communication" and "Formal Visitor Communication" completely overlook non-verbal communication.

Keepers (and managers) almost certainly will get a very different reaction from the receiver of their verbal communication if it is accompanied by eye-to-eye contact and a sincere smile than if the verbal communication is accompanied by eye aversion and a scowl or frown. This might seem obvious, but it is just as worthy of keeping in mind as the other points in the article.

3. The article hastily overgeneralizes in making the point that "...a surly, incommunicative or otherwise unpleasant keeper has the power to not only ruin a visitor's day, but can shape what the visitor thinks of the zoo's overall quality. In turn, this may shape what the visitor says about the zoo to others." This is saying that one keeper's one instance of misbehavior is representative of all keepers at that zoo, and is representative of all zoos.

This point is reminiscent of the illogic underlying racial bigotry; i.e., overgeneralizing the characteristics of one individual to the whole population to which the individual belongs.

The article could have made the point more effectively and supportively by stating instead that keepers are human, and as such are likely to have off-moments and/or off-days, and therefore it is important to be mindful and on best behavior when interacting with visitors.

Barry Fass-Holmes, Ph.D.

volunteer/member/donor for the Zoological Society of San Diego, San Diego, CA

(Editor's Note: The following are comments received in response to the June 2010 "From the President" message by AAZK President Shane Good regarding the subject of AZA-accredited and non-accredited facilities within the zoo community. The article appears on page 252 of Vol.37, No. 6 of Animal Keepers' Forum.) The first is from the former Curator of Herpetology at the Brookfield Zoo.

It is absolutely rare to find someone in the industry who takes a balanced position as Shane did, in his discussion about AZA accredited/non-accredited institutions. It is rarer still to find someone willing to speak up and state their position as clearly and soundly as Shane did. A mindset seems to prevail that "accredited institutions" have "passed" and "non-accredited" institutions have somehow "failed" where AZA accreditation is concerned. That is a myth. In fact, I know of some non-accredited institutions that have never applied for accreditation in the first place by choice--and often for a variety of well-founded reasons including those Shane itemized. Some, especially smaller institutions, find the accreditation process too costly since the applicant must pay all expenses, including the hosting of the accreditation team. In those cases, precious limited financial resources are being used to maintain their collections to meet their own high standards. In other words, accruable benefits may not justify the costs. For others, when a zoo confronts such contentious issues as the elephant-rightists groups, the Zoo staff may feel that AZA support had been insufficient. Other zoos are not willing to divulge the financial status of their institution to the extent that is requested by AZA. Some members have been disappointed that AZA was not monitoring the legislative process that resulted in zoos being lumped with golf courses as being ineligible to receive stimulus monies. On the other hand, USDA-APHIS inspections are conducted by non-zoo inspectors, and licensing is essential to a zoo's existence. AZA accreditations are conducted by peer review which sometimes can carry its own set of problems. In my own experience I have seen some exemplary non-accredited zoos, as well as a few accredited zoos that have fallen short in their performance. In the interest of balance, it is essential to see both sides of the accreditation picture. Bottom line: Good job, Shane!

All best,
Ray Pawley

Dear Shane,

As an AAZK member and past president (1978-80), I enjoyed your column in the June *AKF*. This issue has come up before and I thought your response was accurate and correct. Sometimes you have to be firm and I'm glad you were! Good luck!

Sincerely,
Dennis Grimm
Downers Grove,IL

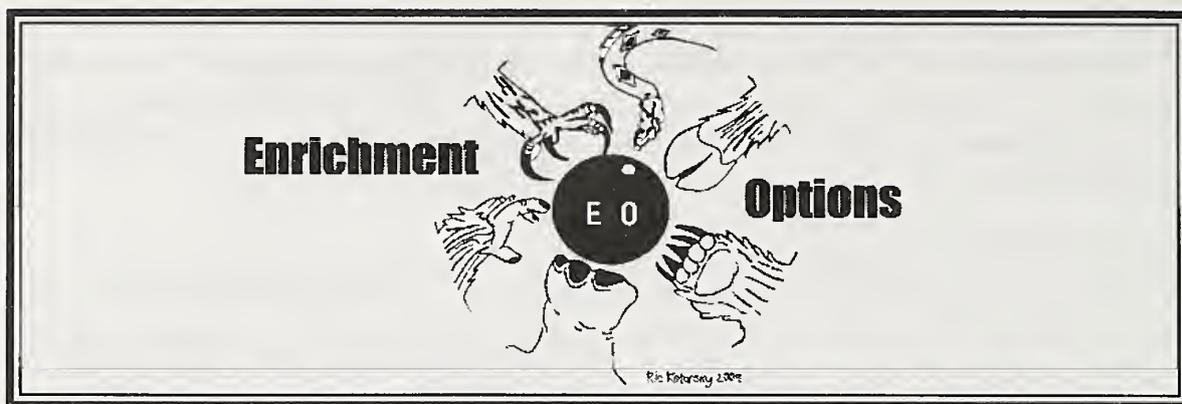
Jambo Shane,

A note to tell you how impressed I am with your "From the President..." in the June 2010 *AKF*. You had a valid inquiry on a potentially touchy subject and you responded quite well. I am impressed. Congratulations.

Gary Clarke, Director Emeritus
Topeka Zoological Park, Topeka, KS

Very good article on non-AZA facilities! We should have a top ten best non-aza facility list!

Mike Cong
Posted on Facebook



EO Editors -

Julie Hartell-DeNardo, Oakland Zoo and Ric Kotarsky, Tulsa Zoo & Living Museum

Prototype Superworm (*Zophobas morio*) Dispenser as Multi-species Environmental Enrichment

By Jeanne Hale, Animal Keeper

Coyote Point Museum for Environmental Education, San Mateo, CA

Abstract

A prototype superworm dispenser was designed and exposed to ring-tailed cat, Channel Island fox, raccoons, common ravens and burrowing owls and was shown to provide long-lasting (≥ 30 minutes) enrichment and promote foraging behavior.

Introduction

Superworms (*Zophobas morio*) are a common enrichment food item used for nearly all the animals at Coyote Point Museum. Attempts at presenting mealworms in simple toys (cardboard tubing, paper-based bags/boxes, plastic feeders, substrates) are either short-lived (animal retrieved worms in less than 5 minutes) or dissuaded the animal from interacting (little or no interest in enrichment item). The goal of this study is to develop a superworm dispensing device that presents long-lasting (≥ 30 minutes) environmental enrichment via the random dispensing of worms throughout the day. Criteria for this dispenser will be:

1. Provides visual and foraging enrichment for a period of at least 30 minutes
2. Is indestructible by target animal

Materials

The dispenser (Fig.1) is made up of 10 parts: The body is composed of three 4.5in diameter x 2.5in tall extruded acrylic rings (wall thickness = 0.125in), each separated by a polycarbonate gate (0.25in thickness) of the same diameter with one 0.25in hole oriented near the outer edge. The base and top were made of polycarbonate (0.25in thick) and the entire device was held together by three 7.5in long 0.5in diameter aluminum rods that connected top to base via $\frac{1}{4}$ -20 x $\frac{3}{4}$ in screws, sandwiching the rings and gates. The base had one 0.25in hole drilled in the center. A metal eye bolt and spring clip were secured to the top to facilitate hanging of the dispenser.

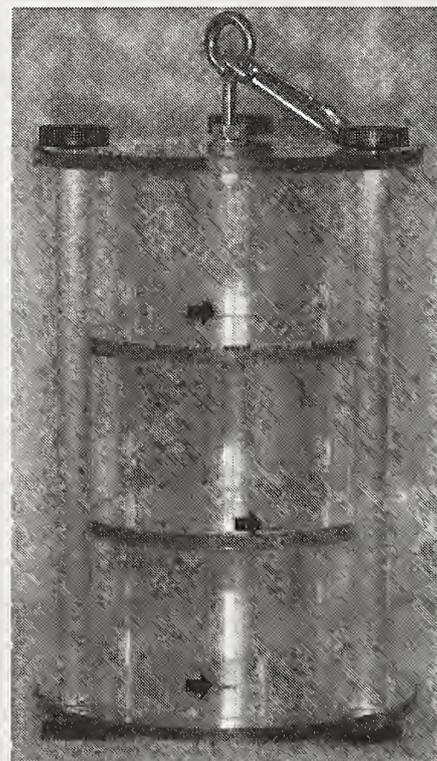


Figure 1: Assembled Dispenser. Arrows indicate holes in gates and base.

Methods

For all tests the dispenser was filled from the top level with 10-30 superworms. The prototype was tested using the following animals under the following conditions:

Test #1: Ring-tailed Cat (*Bassariscus astutus*): The dispenser was hung on an animal-accessible branch in a temperature controlled indoor exhibit.

Test #2: Channel Island Fox (*Urocyon littoralis*): The dispenser was hung on a low-hanging animal-accessible branch in an outdoor exhibit.

Test #3: Raccoon (*Procyon lotor*): The dispenser was hung above the indoor, temperature-controlled night-quarters caging housing two raccoons. The dispenser was visible to both raccoons, but not accessible.

Test #4: Common Raven (*Corvus corax*): The dispenser was hung three feet above the ground from a rope ladder and was accessible by the animals in an outdoor exhibit with two ravens.

Test #5: Burrowing Owl (*Athene cunicularia*): The dispenser was animal-accessible hanging approximately two feet above a rock perching site in an outdoor exhibit with three burrowing owls.

The dispenser was evaluated for: duration of enrichment, interest exhibited by the animal in the superworms dispensed (foraging) and interest exhibited by the animal in the dispenser itself. The level of interest was rated and recorded on a 0-to-5 scale; 0 representing no interest and 5 representing intense interest. The dispenser was also evaluated for overall function.

Results:

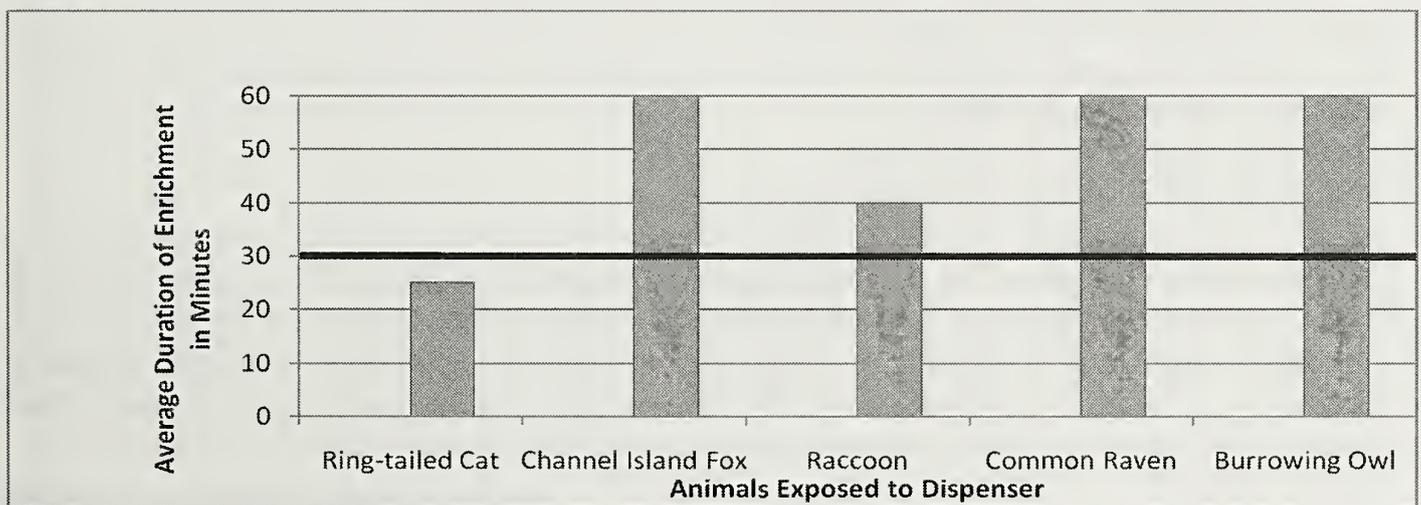


Figure 2: Summary of Average Duration of Enrichment in Animals exposed to Dispenser. The bold line represents the desired enrichment length of 30 minutes.

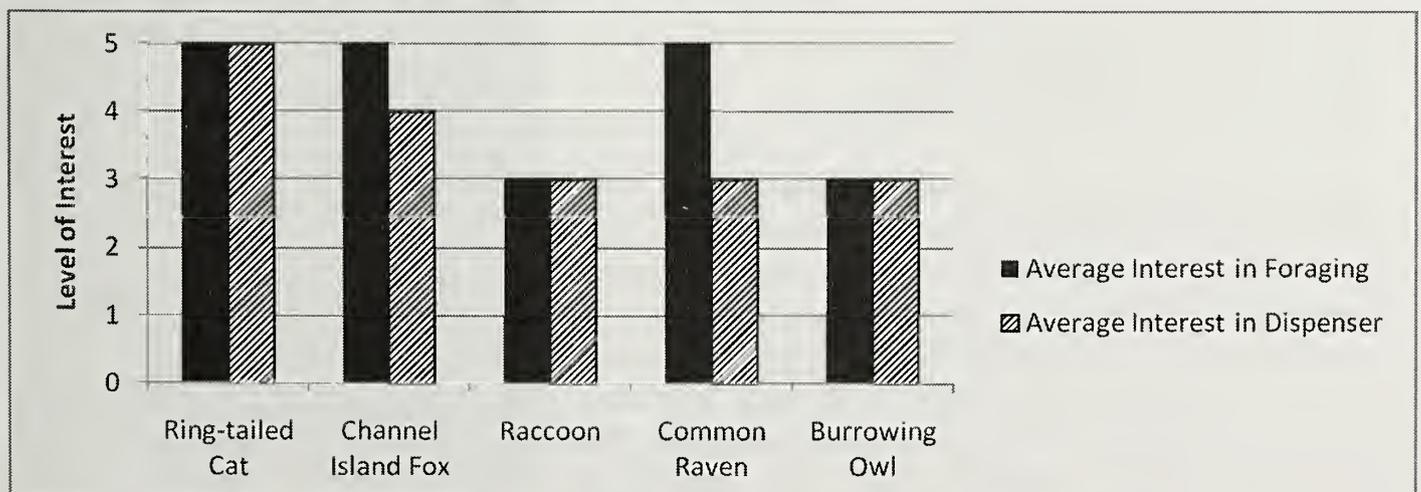


Figure 3: Summary of Levels of Interest Shown by Animals Exposed to Dispenser

Test #1: 0.1 Ring-tailed Cat (*Bassariscus astutus*)

Duration of enrichment: 25 minutes

Average interest in foraging: 5 (high)

Average interest in dispenser: 5 (high)

The ring-tailed cat appeared to be primarily attracted to the dispenser itself. With the majority of the superworms visible inside, it tried several different (and unsuccessful) attempts to access them directly. Although the ring-tailed cat did find the superworms dropped from the dispenser, no connection appeared to be made between the worms found on the floor and the dispenser itself and after approximately 25 minutes of foraging and returning to the dispenser, it was abandoned in favor of sleep (Fig. 2).

Test #2: 1.0 Channel Island Fox (*Urocyon littoralis*)

Duration of enrichment: > 1 hour

Average interest in foraging: 5 (high)

Average interest in dispenser: 4 (medium)

Interest in the dispenser and surrounding area was minimal until the fox found its first superworm, at which point it began high-energy foraging, digging and rooting through the litter around the drop site and smelling the dispenser. The fox would return every few minutes (<5min) and, finding a newly dropped superworm, would ransack the area again, looking for more. Subsequent sessions with the dispenser involved increased interest and interaction (smelling, pawing) with the dispenser itself, in addition to the foraging activity previously noted.

Test #3: 2.0 Raccoon (*Procyon lotor*)

Duration of enrichment: 40 minutes

Average interest in foraging: 3 (varied)

Average interest in dispenser: 3 (varied)

The interest of the raccoons in the dispenser appeared to depend on the preference of the individual animal. One raccoon showed great interest in the dispenser itself and spent the entire duration near the top of the caging, watching the superworms fall out of the dispenser, but did not climb down to retrieve them. The other raccoon did not indicate any interest or knowledge of the dispenser, but repeatedly checked the site where the superworms fell and would eat them if present (Fig. 3).

Test #4: 0.0.2 Common Raven (*Corvus corax*)

Duration of enrichment: > 1 hour

Average interest in foraging: 5 (high)

Average interest in dispenser: 3 (medium)

Contrary to predictions, the ravens exhibited only mild interest in the superworms visible inside the dispenser and made no attempts to access them. They did however, spend the entire hour watching the dispenser from a distance of several feet (Fig. 4), and came down to forage whenever they saw a superworm fall. Interest in the area below the feeder was very high and the ravens would search the area approximately every 5 minutes, even in the absence of superworms. An additional variable of note is that the cooler



Figure 4: 0.0.1 Common Raven watching dispenser

weather of the raven enclosure ($\leq 55^{\circ}\text{F}$) during tests had an adverse effect on the superworms in the dispenser and superworms that failed to make it out within 60 minutes rapidly became immobile and eventually died.

Test #5: 0.0.3 Burrowing Owl (*Athene cunicularia*)

Duration of enrichment: > 1 hour

Average interest in foraging: 3 (varied)

Average interest in dispenser: 3 (varied)

Initial interest in the dispenser appeared strongly negative. The owls were very aware of the dispenser's presence and either shunned it or made defensive displays towards it. They were also aware of the superworms dropping out of the dispenser, but made no attempts to retrieve them. However, on a subsequent test on the same day, one of the owls showed immediate interest and retrieved the first superworm within 10 seconds of it dropping. That individual then spent the remainder of the observation time foraging within a one foot radius of the drop site and frequently looked up at the feeder. No move to approach the feeder or superworm drop site was made by the other two owls.

Conclusion

This prototype dispenser succeeded in providing sustained, foraging-inducing enrichment for nearly all of the animals it was exposed to. The rate of superworms dispensed from the device slowed during lower temperatures ($\leq 50^{\circ}\text{F}$), but that could be remedied by filling the dispenser from the middle or bottom levels during cooler temperatures, to expedite the dispensing process before the superworms become immobile. Though durable, it is not recommended for animal access in situations where the target animal can unscrew fixtures and lids (raccoons, primates) and strategic placement is needed in multi-animal exhibits, to avoid guarding. Effectiveness in duration as Ring-tailed Cat enrichment was below desired levels, but still above most levels exhibited in enrichment presented during daylight hours for this animal. It may be interesting to compare duration levels as a night quarters enrichment item for this animal.

(Editor's Note: The Enrichment Options Column Coordinators invite you to submit your articles on enrichment (successes and failures) that you have utilized with your facility's animal collection. You are encouraged to include photos that illustrate the enrichment being used. Photos should be submitted as jpgs or tifs (dpi 300 preferred). Articles should be sent in MS Word only and may be submitted electronically to: akfeditor@zk.kscoxmail.com. So plan soon to share your enrichment stories with your colleagues through the Enrichment Options column!)

AAZK Grant Report.....

AZA Class Review: Advanced Avian Program Management

*By Tammy Root, Senior Aquarist, Indianapolis Zoo
AAZK Professional Development Grant Recipient, March 2010*

Working as an aquarist is more than just working with fish. I've had the pleasure of working with penguins for many years and was excited to see that for the first time, an Advanced Avian Program Management class was offered through AZA. Throughout my penguin keeper career, I've been involved in collection planning, reproduction, behavioral husbandry and research. I opted to take this class in hopes that it would help me strengthen my critical thinking techniques and give me the tools to make better decisions by looking at the whole picture. Believe it or not, it did!

During the class, ten topics were discussed to great length. Needless to say, my brain was in overload and I learned so many new things! And of course, the networking was truly amazing. Below is a list of all of the topics discussed and a few highlights within each topic as well.

- Collection planning
 - What to include
 - Constraints to plan
 - ◆ Regulatory issues
 - ◆ Staffing numbers and experience
 - Sustainability challenges
- Acquisition/Disposition
 - Permits
 - RCPs, PMPs, SSPs
- Facilities
 - Design from the perspective of the
 - ◆ Animal(s)
 - ◆ Staff
 - ◆ Guest
 - ◆ Animal management and health management
 - What are the overall needs for everyone involved?
- Staffing
 - Development and training
 - ◆ Explain “why” when training and not just “how to do things”
 - ◆ What it means to be a mentor
- Reproductive Management
 - Making informed decisions
 - Implementing strategies using all the right tools
- Behavioral Management
 - Developing a structured approach and to overcome barriers to success
- Avian Care
 - Understanding the critical elements involved
 - Who speaks for the bird?
- Conservation
 - How to get involved
 - What are the best practices
- Interpretation
 - Why is this important to bird managers
- Research
 - Understanding the overall value of research

By the second day, the class was divided into groups for an end of the week group presentation. Each presentation involved a “real life” scenario of developing a new bird/mixed species exhibit. With each topic discussed, best practices and standards of excellence were talked about. During the presentation, the group defined their best practices in how to make the exhibit work. We also presented some of the problems we came across and solutions to those problems in building the exhibit. Although this class targets avian managers and keepers, the same topics would apply to any animal. I would highly recommend this class to all. The critical thinking techniques I learned will last a lifetime in my career.

CONSERVATION STATION

Creating and Maintaining Partnerships for Conservation: Two Perspectives

By

*Christy Poelker, Antelope Area Senior Keeper
AAZK Conservation Committee Member
Saint Louis Zoo, St. Louis, Missouri*

*Martha Fischer, Curator of Mammals/Ungulates and Elephants
and Grevy's Zebra Trust Board Member
Saint Louis Zoo, St. Louis, Missouri*

Every zoo keeper wants to have a positive impact on conservation. One way to do this is to partner with individuals and groups that have the same or similar goals. We can achieve more of our common goals if we collaborate with like-minded organizations. We hope to give some insight into how it is possible to bridge the distance between zoo keepers in North America and conservationists working with wild populations and illustrate how to form partnerships between them. This will include examples of how one such fence-to-field partnership has been successful from the perspective of Christy Poelker of St. Louis AAZK and Martha Fischer of Grevy's Zebra Trust.

A view from the zoo, by Christy Poelker

One of the most important ways for a conservation organization to engage with AAZK Chapters or zoo keepers is to make sure they feel involved. We appreciate receiving updates, newsletters and other publications. It may seem that keepers are already aware of all that is going on with a species, area of the world or conservation initiative but treating them as any other potential contributor is important. Keepers are some of the most enthusiastic and informed ambassadors for any project or organization. They are able to spread the message to visitors and engage their coworkers and keepers at other zoos.

Something that may seem obvious for conservation organizations to do but is sometimes overlooked is to ask keepers for their help. St. Louis AAZK has given money to dozens of organizations, including most of the Centers in the WildCare Institute at the Saint Louis Zoo. One of the reasons we continue to give to Grevy's zebra conservation is simply that we are asked. We are sent proposals to give to specific projects and provided lists of opportunities to give. We did this in 2008 when we were asked to give to the Grevy's Zebra Week in Kenya. St. Louis AAZK typically donates money to the Grevy's Zebra Trust at least once a year. It also encourages us to contribute when we are given options for our donations. Knowing that the money we have raised is being used for a specific need, such as a GPS unit for a Grevy's zebra scout, is especially rewarding.

It also strengthens our partnership when we are positively reinforced. This can be done in several

easy ways. We receive thank you notes and our Chapter's name is included on the acknowledgment section of presentations done by the Grevy's Zebra Trust. Another opportunity to work together is donating products that each organization no longer needs. For example, Martha gave us some extra Grevy's zebra notecards. Doing something as simple as giving us extra notecards was a great idea. It saved us the cost of purchasing these products to use as thank you notes which allows more money to be used for donations and when we use them it again advertises the plight of Grevy's zebras. It has helped solidify that Grevy's zebra conservation and St. Louis AAZK are intertwined.

Another way to strengthen the partnership between organizations and keepers is to support other projects in which a Chapter or zoo keeper is involved. We know we can count on Martha when we need someone in a management position to support us and our endeavors. She helps us when we need someone to represent our needs to the zoo. Furthermore, Martha supports and encourages keepers in her area of the zoo to be active in AAZK. This means that keepers who work directly with Grevy's zebras have a great impact on the decisions of our Chapter, which leads to us often proposing to promote and contribute to their conservation. We also know that she will participate in and support our fundraising efforts. For example, Grevy's Zebra Trust has donated to our auction at Bowling for Rhinos.



A shirt designed and sold as a fundraiser by St. Louis AAZK is worn by a woman educating Kenyans about Grevy's zebras. (Photo by Belinda Low)

Another illustration of supporting fundraising efforts is when St. Louis AAZK designed and sold t-shirts to contribute to different conservation projects. Our most successful shirt sales featured the Grevy's zebra. This was due in part to Martha spreading the word and selling so many of them for us. The shirt design and text helped spread the word about Grevy's zebras and raised money for their conservation at the same time. We actually ordered a second printing of these shirts since they sold so well. When we had about a dozen left we gave them to Martha to use as she saw fit – once again acting on the idea of sharing leftover products that we no longer needed. She took these shirts to Kenya and gave them to those who were

involved in Grevy's zebra projects. We were so proud when we saw pictures of our shirts with the St. Louis AAZK logo on them being worn in Kenya! When we considered other shirts to design, we not only thought about what species we wanted to represent, but we also thought about how the curators and keepers in that area would help us sell them.

Another thing to keep in mind when working with zoo keepers or AAZK Chapters is that we have many connections at other zoos and Chapters. These contacts may help an organization reach new possible contributors. New ways to fundraise and worthy organizations or causes to support are often topics of conversation at AAZK conferences and other places where we meet. Zoo keepers can often encourage other motivated and enthusiastic individuals to help with the cause. It is also a common occurrence for there to be sharing of resources for other Chapter's fundraisers. St. Louis AAZK has often provided animal paintings or other products to Chapters for auctions, as we did for a Grevy's zebra fundraiser at another AAZK Chapter. If an organization creates a strong bond with one Chapter or one individual they are likely to spread the word to others who can help the cause.

I hope that some of the examples that I have given will give some insight into the perspective of zoo

keepers when it comes to conservation initiatives. I believe we can accomplish our shared goals best when we all work together with our own unique set of tools.

A view from the field, by Martha Fischer

“There are opportunities that are arising from this project that are good. Nkai (Samburu God) has given us that heart of taking care of wildlife and people are supporting us to do this. Let’s come together, work together and be united.” These are the inspiring words of Rikapo Lentiyo, the Grevy’s Zebra Trust’s Scout Program Coordinator, when he was asked to share his thoughts about the conservation activities benefitting the endangered Grevy’s zebra in the Kenyan community where he was born and raised.



Belinda Low, Grevy’s Zebra Trust Executive Director, wearing a St. Louis AAZK shirt while using a video camera purchased by St. Louis AAZK for GZT. (Photo by Martha Fischer)

And Rikapo is correct - the long-term conservation of wildlife in northern Kenya, or anywhere in the world for that matter, depends upon key stakeholders, such as communities, governments, conservationists, universities and international donors, coming together and working together in partnership and in unity. According to the 2009 International Studbook, over 500 Grevy’s zebra (approximately 20% of the world’s entire population!) are cared for in zoos worldwide. Zoos and zoo organizations, like AAZK, are therefore incredibly important partners in Grevy’s zebra conservation.

The spirit of collaboration and partnership is evident throughout the AAZK, especially when considering the enthusiastic support that zoo keepers and AAZK provide to many field conservation initiatives. In the last decade, several Chapters of AAZK have contributed to Grevy’s zebra conservation and education activities and, when needed, emergency efforts to preserve this endangered species.

Since its inception in 2007, the Grevy’s Zebra Trust (GZT) has enjoyed strong support from AAZK. The support of AAZK was instrumental in building the foundation of GZT, and several AAZK Chapters continue to be strong and important partners, contributing support to the Trust’s activities on an annual basis.

Whether they are hosting bake sales or auctions, T-shirt sales or wine tastings, the ingenuity of AAZK to carry out creative fundraisers that will generate awareness and donations for Grevy’s zebra conservation never ceases to amaze; their passionate efforts to raise funds for the work being done by GZT on the ground in Kenya and Ethiopia is deeply appreciated. The following AAZK Chapters have provided funds and equipment to support the efforts of the Grevy’s Zebra Trust: St. Louis AAZK, California Desert AAZK and the Oklahoma City Zoo AAZK.

GZT feels very fortunate to have a strong partnership with AAZK. Each year GZT provides either a project proposal or a list of priority conservation needs and interested AAZK Chapters can choose an area to support. All AAZK Chapters that support our efforts receive the Trust’s biannual newsletter updating all partners and donors on the exciting activities and conservation efforts ongoing in Kenya and Ethiopia, and their partnerships and contributions are acknowledged on the Trust’s website, in the newsletter and during every presentation. GZT also supports AAZK fundraising efforts by providing some items to be offered during the auctions such as GZT T-shirts and hats and unique cultural items, such as jewelry and baskets, purchased in the communities where Grevy’s zebra roam in Kenya and Ethiopia.

And it's not solely about money. GZT is extremely grateful to have so many ambassadors helping us raise awareness about Grevy's zebra conservation and engaging audiences that the GZT field team cannot easily reach. According to the Association of Zoos and Aquariums (AZA), every year 150 million people visit AZA-accredited zoos and aquariums. Zoo keepers are the front line of communication with those millions of visitors and have a great opportunity to raise awareness about endangered species and the ongoing programs to conserve them. Whether through a formal keeper chat in front of their zoo's Grevy's zebra herd or informally chatting with fellow keepers at a conference, the endorsement provided by zoo keepers and by AAZK is felt and appreciated.

Grevy's Zebra Trust is particularly proud of the strong bond that has formed with St. Louis AAZK. This Chapter has a long history of support for Grevy's zebra conservation. Several years ago, this AAZK Chapter's first fundraising effort included the design and sale of a t-shirt focused on the Grevy's zebra. In recent years, St. Louis AAZK was a founding partner of GZT and has consistently provided support to GZT annually. This Chapter supported the launch of the Conservation and Management Strategy for Grevy's Zebra (*Equus grevyi*) in Kenya 2007-2011 and has purchased vital equipment to support the GZT field team's daily work, including a video camera and GPS units.

The conservation of the Grevy's zebra requires commitment and coordination among many partners locally and internationally. In tandem with their *ex situ* conservation efforts, international zoos and zoo organizations, like AAZK, are playing a key role in Kenya and Ethiopia by providing financial support and fundraising assistance for Grevy's zebra in situ conservation initiatives. The combination of global cooperative zoo programs, heightened international awareness to the plight of the endangered Grevy's zebra and increased field conservation partnerships will save this magnificent species from extinction.

MOVING?

Don't miss a single issue of AKF! To update your address, please go to the AAZK website (www.aazk.org) and enter your new address information on the Homepage. Or call 785-273-9149 with address change details. Or email address change to aazkoffice@zk.kscoxmail.com

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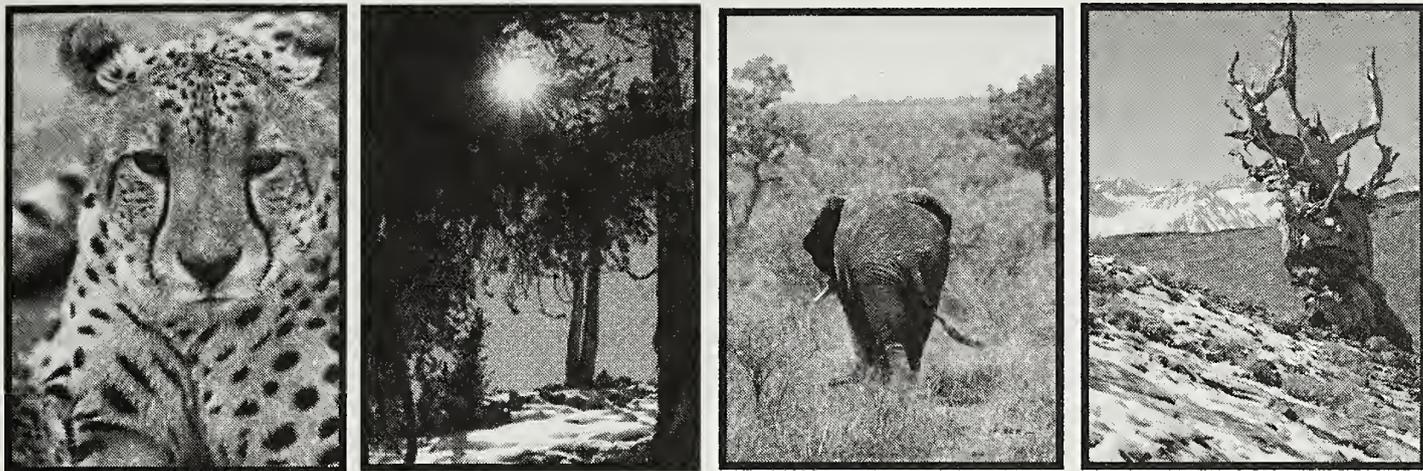
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TIGER MISSING LINK FOUNDATION / TIGER CREEK WILDLIFE REFUGE

First Annual San Diego American Association of Zoo Keepers Photo Contest



**Enter the most prestigious photo contest in San Diego
Regardless of whether you're a professional or amateur photographer
you can win cash prizes.**

The contest will highlight photography's vital role in capturing the realities and impact of conservation worldwide. Photos will be judged on the basis of content, overall impact, artistic and photographic technical quality. Photos of any genre will be accepted including portraits, landscapes, animals, objects, or any combination of these. We invite photos which tell "good news" stories about the environment.

Official Photo Contest Rules:

- The photos must be printed on 8" by 10" or 8" by 12" photo paper with your name, address, phone number, email address and 2-5 sentences describing the environmental issues which are raised by the photo.
- There is a \$10 registration fee for each photo entered and entrants can submit up to 5 photos. Make checks payable to San Diego AAZK. State "Do not bend" on the mailing envelope.
- High-resolution digital files, slides, or negatives must be available for each entry, but please do not send them unless we contact you.
- Entries can be mailed to: San Diego AAZK Photo Contest, c/o Maureen O. Duryee, P.O. Box 632984, San Diego, CA 92103
- All entries must be received by October 30, 2010.
- Winning photos will be announced November 15, 2010 and winners will be contacted by phone and email.
- Judges: Ken Bohn, photographer for Zoological Society of San Diego, Joan Embry, conservation ambassador Zoological Society of San Diego, Yvette Kemp, president of the San Diego Chapter of AAZK, and John Dunlap, Director of the San Diego Zoo.
- The winning photos will be displayed at the San Diego AAZK 2011 Conference, San Diego AAZK events, San Diego AAZK website, and San Diego AAZK Facebook® page.
- The prizes include: Best of Show (1) - \$100, First Place (4) - \$50, Honorable Mentions (4) - \$25
By entering this photo contest, the winning photographers give San Diego AAZK permission to publish their photos in any of our publications or other printed materials and on our Web site in the context that they are the Best of Show, First Place, and Honorable Mention photos from our San Diego AAZK photo contest.
- For other uses we will seek permission from the photographers.
- The monies raised will go to support conservation and zoo keeper education.

People Skills For Animal People



CONFLICT RESOLUTION - CONSIDER THIS

*By Judie Steenberg, Retired Zoo Keeper
Maplewood, MN*

During my 23+ years as a Zoo Keeper, there were opportunities to attend various personal development and conflict resolution classes and sessions. Some of these classes were offered, in general, for all City employees, and there were specific sessions and meetings at the Zoo, for Animal Management Staff, from Keepers up to the Director.

Two strategies stand out from those training sessions:

1. "Listening and values"
2. "Steps for creating a safe environment for giving feedback and resolving differences"

These were the topics of documents I received at different times that do not have any reference as to the source, or author. Because they were helpful to me and my co-workers, they will be presented here as "authors unknown."

Before sharing that information with you, I'd like to tell you what worked for me...most of the time, but not always. It would be naïve to say that there is one sure way to resolve conflict and issues in a zoo setting. There are too many "factors" involved, but it really is worth trying your best to make your workplace better for you and of course, first and foremost, for the animals; that should always be a Keeper's priority.

Early on in my career I learned the following:

1. You don't have to "like" people you are working with but you do have to "**work with them**" for the benefit of the animals in your care. It's not always easy.
2. You have to be honest about whether a problem is "personal" or really about the animals. Keepers must work on being objective, not subjective, while still representing the best interests of the animals....it's difficult to be sure that personal and/or personnel issues don't cloud the problem at hand.
3. You will not always succeed and should choose your "battles"...what's really important?
4. The time comes when you need to "get over it, let go and move on". Unless you do you are really focusing on the past, not the future.
5. Learn from past mistakes and don't repeat them. We all make mistakes but the real "error" is not having learned the lesson.
6. If you can't make something better, don't make it worse.

What follows are suggestions from the hand-outs received at various classes and sessions, interspersed with my own comments and suggestions.

Listening and Values (author unknown)

Surprisingly, the art of listening doesn't come easily to some people and you might have to work at really "listening".

1. Believing that listening to people is important and worth taking the time for.
2. Being "other-person" focused.
3. Believing feelings are as important as facts.
4. Believing listening is powerful and empowering.
5. Believing that people are capable of solving their own problems.
6. Believing that empathy is important.
7. Believing everyone has something valuable to say.

With that said, let's consider:

Steps for Creating a Safe Environment for Giving Feedback and Resolving Differences (author unknown) (... *italics are my comments*).

- Each person speaks for him or herself (...*facts not hearsay*).
- Don't take yourself too seriously.
- Feelings are as important as facts (... *true, but try to be objective, not just subjective*).
- Listen from your heart to what each other is saying (...*very difficult to do. LISTEN, don't be thinking about what you're going to say next*).
- Don't respond with accusations but rather to what you heard (...*that person say*).
- Speak with "I" statements (...*again, avoid hearsay*).
- Clarify what you hear (...*this is important, be sure you heard, and understand, what was said*).
- Each person is of equal importance and value (...*really, if they are part of the problem they are part of the solution*).
- Check out assumptions (... *don't rely on "war stories" for your facts*).
- Respect one another's opinion (...*this is mutual*).
- Tolerate ambiguity in each other (...*being uncertain or undecided is to be expected and part of the process; time might be needed for clarification and understanding*).
- Treat each other with compassion. (...*concern and kindness work, indifference and coldness are problems in themselves*).
- Keep confidences—the "who," "what," "why" content of what is said stays in the room (...*gossip is an occupational hazard and more so when you're trying to resolve a conflict*).
- Each person is free to choose how they will participate and negotiate.
- Negotiated agreements are in writing and "quid pro quo" meaning that each gives something for something in return (...*but, it might not always be a win/win*).
- Respect each person's self esteem (...*as they should respect yours*).

Some conflicts require professional mediation and most large zoos have Employee Assistance Programs (EAP) and/or a Human Relations Department. EAP programs usually deal with subjects such as: constructive conflict, stress management, managing workplace change, anger management, dealing with difficult people communications and workplace mediation.

Conflicts with a boss are truly risky and can have long term repercussions, no matter how well prepared or well meaning you are. Not only can they be “career limiting” but also “career ending”. However, serious issues require serious action.

There is a real difference in today’s zoo workforce compared to just 10-15 years ago, at all levels, from Keepers to Managers and Directors. Practical experience with zoo animals has steadily been replaced with academic knowledge about exotic animals, and business experience. Many of today’s Directors, Curators and Collection Managers have never worked as Keepers, or have limited experience with animals in any capacity. This can put them at a disadvantage to fully understand animal management problems. It may require extra effort to get everyone on the “same page” when dealing with an animal issue.

As a Keeper, I also learned that it’s best to resolve an issue at the lowest level before moving up the ladder. I don’t believe that has changed. Sometimes miscommunication or a person’s perception of what “is” can be dealt with before a larger problem develops. Again, anyone who is part of the problem is part of the solution.....doing nothing really isn’t an option. Someone gave me a bumper sticker that reads “You NEVER fail until you stop trying”

....a good life lesson to keep in mind.

(Editor’s Note: Are there topics you would like to see discussed in the People Skills for Animal People column? If so, drop Susan an email at akfeditor@zk.kscoxmail.com)

Website SALE!!!

Be sure and check out the AAZK website every month for special sale prices on AAZK logo products, publications, clothing items and more.

A new sale every month!

See:

www.aazk.org/shop

for special sale items each month throughout the remainder of 2010.

Upcoming AZA National Conferences

Sept. 11-16, 2010 - AZA 2010 Annual Conference - Hosted by Houston Zoo, Houston, TX.

Sept. 12-17, 2011 - AZA 2011 Annual Conference - Hosted by Zoo Atlanta, Atlanta, GA

Sept. 8-13, 2012 - AZA 2012 Annual Conference - Hosted by Phoenix Zoo, Phoenix, AZ

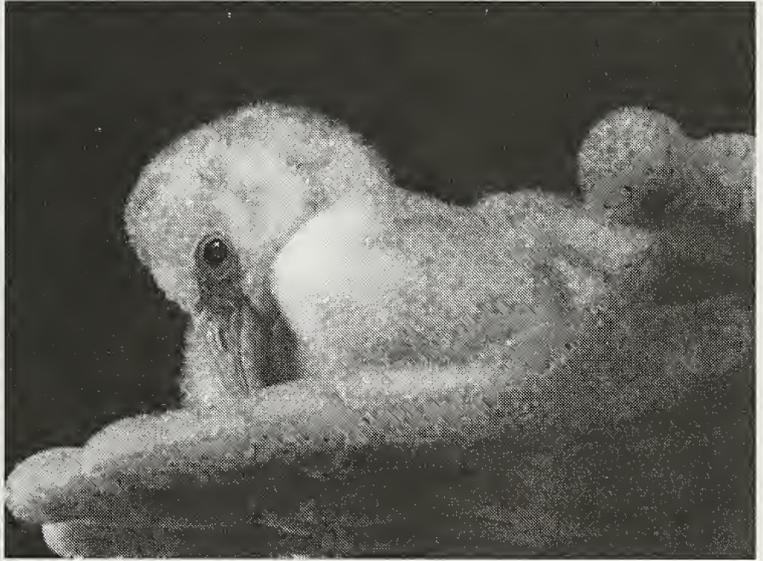
Sept. 7-12, 2013 - AZA 2013 Annual Conference - Hosted by Kansas City Zoo, Kansas City, MO

For info on AZA Conferences, see http://aza.org/ConfWork/AC_Intro/index.html

Creative Thinking Keeps Flamingos Breeding

Spring usually means the birth of new animals at the Fort Worth Zoo, and flamingos are right on time. Lesser flamingo (*Phoeniconaias minor*) chicks have been arriving one after the other since 2002.

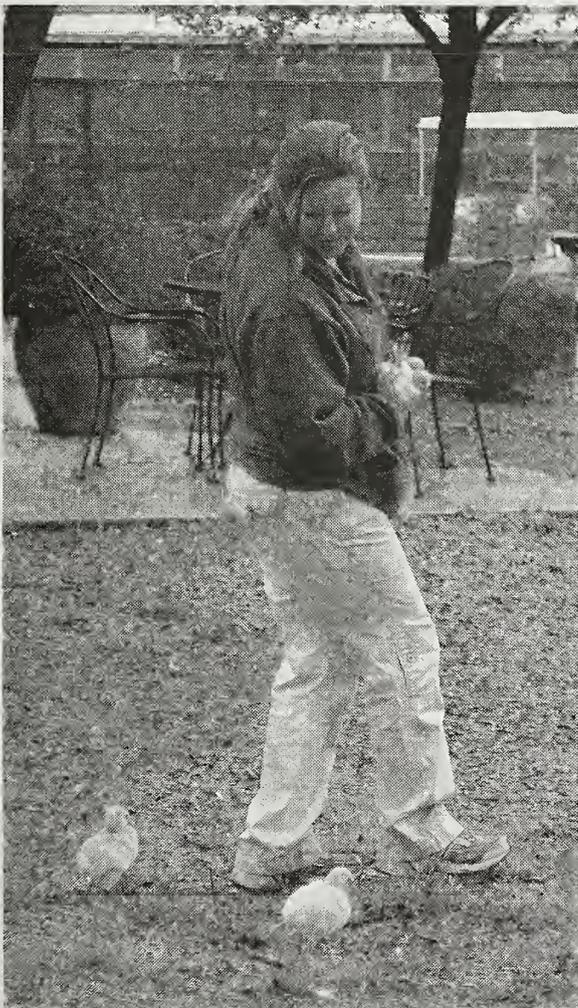
The zoo has hatched and hand-reared 59 lesser flamingo chicks since 2002, and learned some things along the way. For example, wild flamingos breed in colonies with thousands of birds. The zoo's breeding group has only 18 to 20 birds. So, to get them to breed, zookeepers had to get creative.



Young flamingo chicks require round-the-clock care in their first few weeks of life. (Photo courtesy of Ft. Worth Zoo)

“Mirrors on the walls create the illusion that the flamingos are members of a much larger group,” said Remecka Owens, public relations manager for the Fort Worth Zoo.

The younglings are fragile little things, weighing about 1.75 to 2.6 ounces at birth. The zoo puts them in an incubator-type container for the first 24 hours so their down is dry and fluffy.



The bird's first food is its own yolk followed by two-hour feedings of formula beginning 24 hours later. In many cases, it's the zoo's bird curator Katy Unger who takes the chicks home to keep up with the 6 a.m. to midnight feedings.

As chicks age, Unger is also often the one taking them on daily walks so their long legs develop properly. The chicks are introduced to the flock at about three months old, but sheltered at night until they're fully integrated.

“The lesser flamingo breeding program is one of the Zoo's banner conservation programs,” said Owens. “The Zoo is the only facility in the world to consistently breed the native African bird.”

Other adjustments to the nesting habitat have included more heating lamps and the addition of a small pool.

Walks with zoo staff help to strengthen the young birds legs. (Photo courtesy of Ft. Worth Zoo)

Source: www.nbcdfw.com/news/local-beat from reporter Deborah Ferguson, 3/17/10

Conservation/Legislative Update

Column Coordinators: Becky Richendollar, North Carolina Zoo
and Greg McKinney, Philadelphia PA

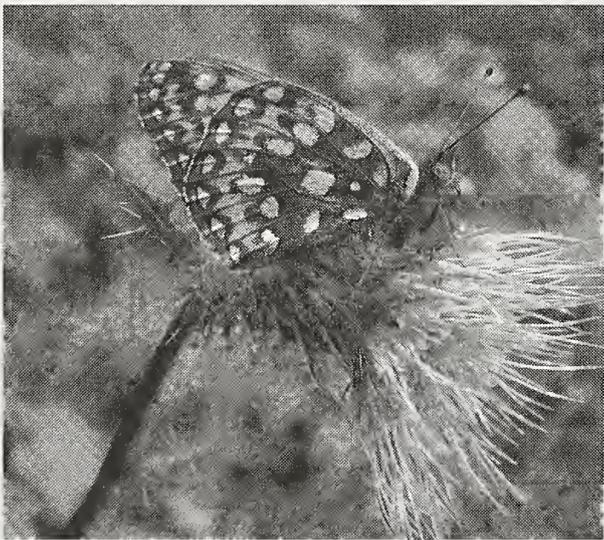


This month's column was put together by
column co-coordinator Greg McKinney

Oregon Zoo Works to Save Threatened Silverspot Butterfly - The Oregon Zoo recently released 128 Oregon silverspot butterfly larvae (*Speyeria zerene hippolyta*) at Rock Creek in Tillamook County in an effort to stabilize declining populations of the threatened species. This is the zoo's second silverspot release of the summer — 650 larvae were released at Rock Creek in late June — and more will be released throughout the season.

“These two successful releases are an excellent start to our summertime silverspot conservation efforts,” said Oregon Zoo director Kim Smith. “The zoo will release thousands of silverspots this season and work to restore the butterflies’ habitat.”

In August and September, the zoo will participate in multiple releases at three protected sites — Cascade Head, Rock Creek and Bray Point — along the Oregon coast. The zoo's horticulture department has also raised thousands of western blue violet (*Viola adunca*) starts to plant at some of the release sites, which will provide a crucial food source for the butterflies and allow the larvae to pupate. The silverspot butterfly is native to coastal grasslands ranging from northern California to southern Washington. The species has been threatened by habitat destruction and the decline of the western blue violet, its host plant.



Oregon Silverspot Butterfly (Photo USFWS)

The Oregon Zoo works in partnership with the Washington State Fish and Wildlife Service, Woodland Park Zoo, Nature Conservancy, Xerces Society, Lewis and Clark College, U.S. Forest Service and U.S. Fish and Wildlife Service to bolster and protect wild populations of the silverspot butterfly, which is listed as threatened under the U.S. Endangered Species Act. Before this collaborative captive-rearing and release effort began, monitoring at Cascade Head revealed a dramatic decline in the number of butterflies seen flying. In years prior to 1992, average numbers exceeded 1,000 adults, but in 1998, only 57 of the butterflies were found. Each year, female silverspot butterflies are collected from Mount Hebo, which is home to a stable silverspot population, and induced to lay eggs at the Oregon Zoo's butterfly conservation facility. The eggs hatch into tiny larvae (caterpillars), which are then kept in refrigerators to

hibernate through the winter. When the larvae wake up in the spring, they proceed to eat hundreds of blue violet leaves grown pesticide-free at the zoo before they are released.

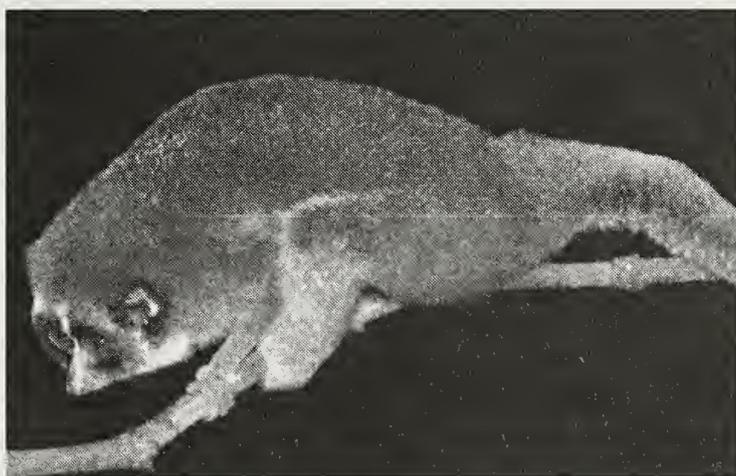
According to the U.S. Fish and Wildlife Service, butterfly populations throughout North America are in decline with 23 butterfly species listed as either endangered or threatened. To address this problem, the Oregon Zoo has supported the Association of Zoos and Aquariums' Butterfly Conservation Initiative, which includes nearly 50 national zoos and aquariums. The initiative is designed to bring together government and non-government agencies to aid in the recovery of imperiled North American butterflies.

The Oregon silverspot captive-rearing effort is a project of the NW Zoo & Aquarium Alliance, which promotes collaboration on regional conservation among zoos and aquariums in the Pacific Northwest.

Source: Oregon Zoo, 21 July 2010

First Ever Pictures of Mysterious Mammal - The pictures of the Horton Plains slender loris (*Loris tardigradus nycticeboides*) were taken in the montane forests of central Sri Lanka by the Zoological Society of London (ZSL) and Sri Lankan researchers. Until now this subspecies of slender loris has only been seen four times since 1937 and disappeared from 1939 to 2002, leading experts to believe it had become extinct. Conservation Biologists from ZSL's Edge of Existence Programme surveyed 2km transects for more than 200 hours, looking for signs of this elusive wide-eyed primate. The pictures of the nocturnal creature, which is classified as endangered by the IUCN Red List of Threatened Species, show an eight inch long (head and body length) adult male slender loris sitting on a forest branch. It is characterised by his short limbs and long, dense fur. Conservationists have discovered that both the fore and hind limbs of the Horton Plains slender loris appear shorter and sturdier than the limbs of any of the other loris found in either Sri Lanka or southern India showing how the mammal has adapted to live in the cool montane forest.

ZSL Conservation Biologist Dr. Craig Turner said: "We are thrilled to have captured the first ever photographs and prove its continued existence – especially after its 65 year disappearing act. This is the first time we have been able to conduct such a close examination of the Horton Plains slender loris. The discovery improves our knowledge of this species, but we need to focus our efforts on the conservation and restoration of the remaining montane forest where this species still exists. Currently this accounts for less than one per-cent of the land area of Sri Lanka."



Horton Plains Slender Loris

(Photo: Zoological Society of London)

Research Leader Saman Gamage added: "This discovery is a great reward for the ongoing field research we undertake across much of south-western Sri Lanka. Nearly 1,000 nocturnal surveys have been completed in 120 different forest areas looking for all loris species to assess their status, ecological needs and current threats. We are now conducting further studies to establish whether the Horton Plains slender loris could even be a species in its own right." *Source: PRWeb UK, 19 July, 2010*

India to Reintroduce Cheetahs into Grasslands - The Indian government plans to import cheetahs (*Acinonyx jubatus*) from Africa and introduce them into the country's grasslands, six decades after the fleet-footed feline was hunted here until it disappeared. Two wildlife groups have already carried out a feasibility study on bringing the cats to three reserves that will total more than 4,500 square miles (about 12,000 square kilometers) in Madhya Pradesh and Rajasthan states.

The cheetah, the world's fastest land animal, roamed the wilds of central and western India until, in the face of relentless hunting by trophy-seekers and poachers, it vanished from here about 60 years ago. The Asiatic cheetah (*Acinonyx jubatus venaticus*) - the sub-species that once lived in India - no longer exists in the wild, though some survive in zoos. So scientists will import 18 wild cheetahs from Namibia and South Africa, said a ministry official, speaking on condition of anonymity as he was not authorized to speak to the media.

The three wildlife habitats are now inhabited by small cattle farmers and shepherds, who would have to be relocated to other parts of the country. The government plans to spend around \$6 million relocating inhabitants and readying the wildlife reserves, an official said. Scientists expect that within two decades the cheetahs would number around 60, he said. India's environment minister Jairam Ramesh said that bringing cheetahs back would help restore India's grasslands - as villagers would no longer be cutting the grass to use as fodder - and eventually help stabilize the populations of other endangered native species.

"The way the tiger restores the forest ecosystem, the snow leopard restores the mountain ecosystem, the Gangetic dolphin restores waters in the rivers, the cheetah will restore India's grasslands," Ramesh said.

But conservation experts were skeptical, citing India's poor record of protecting the tiger (*Panthera tigris tigris*). Despite expensive protection campaigns, the Indian tiger population has dropped from nearly 3,600 seven years ago to about 1,400 today.

"We have been unable to save and protect big cats such as the tiger. I am not sure if it's wise to divert funds and attention from the big cats," said Belinda Wright of the Wildlife Protection Society of India. Wright also questioned the wisdom of introducing an African sub-species of the cheetah. "If these were Asiatic cheetahs, the chances of survival would be greater," Wright said. *Source: Associated Press, Nirmala George, 2 August 2010*

Wildlife Conservation Society Applauds Senate for Giving "Stamp" of Approval - The Wildlife Conservation Society applauded the Senate passage of H.R. 1454, the Multinational Species Conservation Funds Semipostal Stamp Act on 30 July. In essence, the bill provides for the issuance of a special U.S. Postal Service stamp whose premium price would directly contribute to funding for projects supported by the Multinational Species Conservation Funds (MSCF), which are administered by the U.S. Fish and Wildlife Service. Its passage has been a major legislative objective of WCS and represents a victory for supporters of wildlife and fiscally responsible governance.

The U.S. Fish and Wildlife Service's (FWS) MSCF program supports the conservation of many of the world's most charismatic species. Despite the modest size of this program, its support is very broad-based, including more than 20 million members of the Multinational Species Coalition. This program also stimulates public-private partnerships and has leveraged more than three times as much in matching funds from conservation groups, corporations and other governments. The stamp would offer a convenient way for the public to support MSCF operations with proceeds going to conservation projects. It would be sold at U.S. Post Offices nationwide as well as institutions like zoos and aquariums and it would depict highly imperiled species such as African and Asian elephants, rhinoceros, tigers, great apes or marine turtles.

WCS has strongly advocated for the MSCF Semipostal Stamp Act since it was introduced and led a coalition representing millions of Americans in support of the bill. In May 2009, WCS Executive Vice President for Conservation and Science Dr. John Robinson testified before the House Natural Resources Subcommittee on Insular Affairs, Oceans & Wildlife in support of the bill. Through a campaign of WCS's "Take Action" online advocacy program, 15,927 WCS supporters sent a total of 28,615 letters to their Senators in 2010 urging them to pass the MSCF Semipostal Stamp Act.

As a steering partner of a diverse Multinational Species Coalition consisting of 21 global groups, WCS has helped ensure the protection of global priority species such as tigers, African and Asian elephants, great apes and marine turtles. *Source: Wildlife Conservation Society, 30 July 2010*

Five Penguins Win U.S. Endangered Species Act Protection - Five penguin species will get U.S. Endangered Species Act protections after a 2006 petition by the Center for Biological Diversity and two lawsuits filed jointly with Turtle Island Restoration Network. The Interior Department decision of August 2, will list the Humboldt penguin (*Spheniscus humboldti*) of Chile and Peru and four New Zealand penguins, the yellow-eyed (*Megadyptes antipodes*), white-flippered (*Eudyptula albosignata albosignata*), Fiordland crested (*Eudyptes pachyrhynchus*) and erect-crested (*E. sclateri*), as threatened.

"Protecting these penguins under the Endangered Species Act gives them a chance at survival," said Center biologist Shaye Wolf. "Sadly, in the finding the Obama administration failed to acknowledge climate change as a threat. It won't be able to help penguins survive the climate crisis if it doesn't admit that it's a problem."

The penguins face serious threats from climate change, ocean acidification and commercial fishing. This designation will raise awareness about the penguins' plight, increase research and conservation funding, and provide additional oversight of activities approved by the U.S. government that could harm penguins and their habitat, including development projects and high seas fisheries. Warming oceans, melting sea ice and overfishing have depleted the penguins' food supply of krill and fish. As sea ice has melted, krill has declined by up to 80% since the 1970s over large areas of the Southern

Ocean where penguins forage. Ocean acidification is also inhibiting the growth of organisms at the base of the food web. What's more, these penguins also drown in commercial fishing gear, die in oil spills and are killed by introduced predators at their breeding colonies.

"Finally the government is throwing penguins a lifeline to recovery by protecting them under the Endangered Species Act," said Todd Steiner, executive director of Turtle Island Restoration Network. "Industrial fisheries and ocean warming are starving the penguins. Longlines and other destructive fishing gear entangle and drown them. Now they will have a fighting chance to survive." *Source: Center for Biological Diversity, 2 August 2010*

US Wildlife Facility Touts Artificial-Insemination Births of Endangered Onagers - Researchers say two exotic horse-like animals born recently at a wildlife conservation centre are the first ever



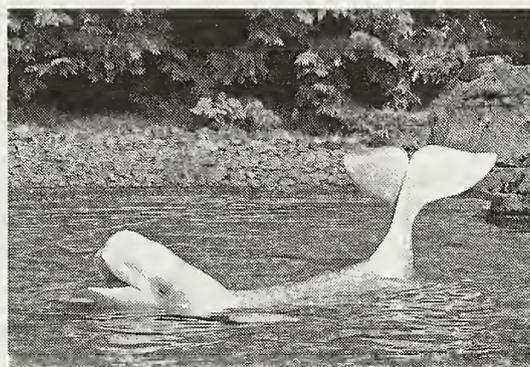
Baby Onager born via artificial insemination at the Wilds in Ohio.

(Photo: Graham Jones, Columbus Zoo)

produced through artificial insemination. The rare Persian onagers (*Equus hemionus*) were born in late June and early July at a 10,000-acre (4,000-hectare) conservation facility called the Wilds in the state of Ohio. The foals were the result of a two-year study of the species involving experts from the Wilds and the Smithsonian Conservation Biology Institute in Virginia. Project leader Mandi Vick says the work will help save endangered relatives of the horse including onagers, which look like donkeys and sometimes are known as Asian wild asses. Experts say fewer than 700 onagers remain in their habitat in Iran. *Source: Associated Press, 2 August 2010*

leucas) off Anchorage as endangered. The groups are seeking to uphold the 2008 listing for the few hundred white whales in Cook Inlet. The state filed a lawsuit in June to overturn the listing. The state's position is that the listing is unnecessary because the population has stabilized. It also is concerned about the listing's impact on economic development, including expanding the Port of Anchorage. Conservation groups say the belugas need the extra protections the Endangered Species Act listing brings, and accuse the state of wasting taxpayer money fighting the listing in court instead of helping the whales recover. *Source: Associated Press, 4 August 2010*

Groups Challenge State's Beluga Lawsuit - A half-dozen conservation groups are challenging the state of Alaska's lawsuit to overturn the federal listing of beluga whales (*Delphinapterus*



Beluga whale at Vancouver Aquarium

(Photo: Stan Sherbs/Wikipedia)

Feds to Review Status of Mexican Gray Wolf - The U.S.

Fish and Wildlife Service says it will review the status of the troubled Mexican gray wolf (*Canis lupus baileyi*) to determine if it should be listed as an endangered species separate from other North American gray wolves. A court settlement required the agency to issue a finding by the end of July on two petitions that sought a separate listing. The decision was made public thereafter. Conservationists have argued that a separate listing is biologically warranted, legally required and would result in stronger protections for the animal. A subspecies of the gray wolf, the Mexican wolf was exterminated in the wild by the 1930s. Reintroduction began in 1998 along the Arizona-New Mexico border, but the effort has been plagued by illegal shootings and the concerns of ranchers and environmentalists. *Source: Associated Press, 3 August, 2010*

Obama Cancels Offshore Oil Lease Sales in the Atlantic and Gulf of Mexico - The Center for Biological Diversity praised the Obama administration's announcement that it is cancelling two offshore oil and gas lease sales: one in the Atlantic off the coast of Virginia and another in the Gulf of Mexico. The Atlantic lease sale was part of a controversial area that Interior Secretary Ken Salazar approved for expanded offshore oil development after the Bush administration lifted the moratorium on drilling in the Atlantic. The Gulf of Mexico lease sale was scheduled to take place in mid-August.

“Obama’s decision to cancel these lease sales recognizes that risky offshore drilling needs reform,” said Miyoko Sakashita, oceans director at the Center. “Halting controversial lease sales is among the most proactive steps that Obama has taken toward the Gulf disaster.”

The Federal Register notices cancel Lease Sale 220 in the Atlantic and Lease Sale 215 in the western part of the Gulf of Mexico. The notices say cancelling these lease sales “will allow time to develop and implement measures to improve the safety of oil and gas development in Federal waters, provide greater environmental protection, and substantially reduce the risk of catastrophic events.”

“Rather than sound science and common sense, federal approval of offshore drilling has relied upon Big Oil promises,” said Sakashita. “This commitment to revisit oil spill risks, safety and environmental protections is long overdue.” Just weeks before the Deepwater Horizon explosion, the Department of the Interior proposed expanding offshore oil development into new areas of the Atlantic, Arctic and eastern Gulf of Mexico.

“In light of the BP oil spill, President Obama should pull back from the entire plan to expand offshore drilling and instead pursue clean energy,” added Sakashita. *Source: Center for Biological Diversity, 27 July 2010*

Alaska Court Stops All Oil and Gas Activities in Chukchi Sea - On 21 July 2010, a federal district court judge in Alaska issued an order halting all oil and gas activities in more than 29 million acres of the Chukchi Sea. The order said that the former Minerals Management Service (MMS) failed to adequately consider the environmental impacts of potential natural gas production in violation of the National Environmental Policy Act (NEPA). The order was issued by Judge Ralph Beistline of the U.S. District Court for the District of Alaska and effectively blocks oil and gas exploration activity in Lease Sale 193, which brought in \$2.66 billion in February 2008. The bid was a record high for an Alaska lease sale, according to a 23 July BNA article. The January 2008 lawsuit to block the sale of the lease was brought by Earthjustice on behalf of the Native Village of Point Hope, City of Point Hope, Inupiat Community of the Arctic Slope, and 12 Alaska and national environmental groups, according to a 21 July joint press release.

Earthjustice claimed that the decision to offer the lease violated NEPA, the Endangered Species Act, and the Administrative Procedure Act. The suit also alleged that the final environmental impact statement filed by MMS (now the Bureau of Ocean Energy Management, Regulation and Enforcement in the Department of Interior (DOI)) lacked essential information, inadequately assessed environmental and human impacts, understated the risks of oil spills, provided misleading information on the effects of seismic activity, and failed to completely assess the dangers to endangered eiders’ (*Somateria*) habitat. DOI claimed that the environmental impact statement (EIS) contained the scientific results of years of study and analyses of cumulative effects on eiders, as well as incorporating information from the two EIS’s conducted for the agencies five-year leasing plans.

The court found, first, that MMS did meet the necessary requirements regarding the analysis of the seismic surveying and its mitigating impacts in the final EIS. Second, the court said that the EIS did not include the necessary analysis of the impacts of natural gas exploration. In light of the incentives in the lease for natural gas production, the agency could not have taken “a ‘hard look’ at the impact of natural gas exploration if natural gas development is omitted entirely from the EIS.” The government had argued that omitting the assessment of natural gas production was reasonable because there is not an infrastructure to bring natural gas to the marketplace. Third, the court noted that NEPA places very specific obligations on agencies when there is incomplete or unavailable information. The EIS contains “dozens if not hundreds of entries indicating a lack of information” about the impacts on various species, according to the order. Earthjustice had argued that MMS had failed to meet the specific obligations under federal regulations to deal with the missing or incomplete information. The court agreed.

Earthjustice had urged the court to invalidate the lease sale or, barring that, sought “an injunction prohibiting further activity under the leases pending completion of the Agency’s NEPA obligations.” The order does not set aside the lease sale; it orders the agency to complete its EIS obligations and halts all oil and gas activity until the agency meets those obligations.

In its July 21 press release, Earthjustice attorney Eric Grafe was quoted saying, "This is an important decision directing the Secretary to consider the need for more information on the Chukchi Sea. We have long argued that more science, more data and more research is needed in the sensitive waters of the Arctic Ocean before oil and gas lease sales or drilling are allowed occur." *Source: OMBWatch, 27 July 2010*

Scientists Question Government Team's Report of Shrinking Gulf Oil Spill - The "greatest environmental disaster" in U.S. history -- which has appeared at times to leave a high-control White House powerless -- seemed to have lost its power to scare. A few hours after BP's well was declared virtually dead, the Obama administration announced on 4 August, that only about 26% of the oil spilled in the Gulf of Mexico was unaccounted for.

"A significant amount of this," said Jane Lubchenco, head of the National Oceanic and Atmospheric Administration, "is a direct result of the very robust federal response efforts."

But, in interviews, scientists who worked on the report said the figures were based in large part on assumptions and estimates with a significant margin of error. Some outside scientists went further: In a situation in which many facts remain murky, they said, the government seemed to have used interpretations that made the gulf -- and the federal efforts to save it -- look as good as possible.

"There's a lot of . . . smoke and mirrors in this report," said Ian MacDonald, a professor of biological oceanography at Florida State University. "It seems very reassuring, but the data aren't there to actually bear out the assurances that were made."

The government's accounting of the spilled oil, called an "oil budget," stated that of the 4.9 million barrels (205.8 million gallons) that poured out of the well, only 827,000 barrels were siphoned to vessels on the surface. Where did the rest of it go? Where there had been mystery, now there was a pie chart. It showed that 5% of the total oil had been burned and that 3% had been skimmed off the surface. An additional 25% had evaporated or dissolved. About another quarter had been "dispersed" -- broken into tiny droplets by chemicals or by the force of being blasted out of the well. The dispersed oil, Lubchenco said, "is in the process of being very rapidly degraded naturally, and so Mother Nature is assisting here considerably." She said, however, that "diluted and out of sight doesn't necessarily mean benign."

But scientists who worked on the report said many of the numbers on the White House's pie chart had significant margins of error. The estimate of how much oil evaporated was calculated using a formula designed for spills near the surface, not 5,000 feet underwater. The calculation of how much oil would be "dispersed" as it flowed from the well was a new one, extrapolated from data about the way oil is broken by waves. And, as for Lubchenco's assertion that the oil that has been dispersed is "rapidly degrading," Bill Lehr, a NOAA scientist and an author of the report, said the analysis did not include an actual calculation or measurement of what's happening in the gulf. "We haven't attempted yet to calculate that rate," he said, and instead relied on assumptions based on past spills in the gulf.

Some outside researchers said that, given the uncertainty about what's happening in the gulf, the administration's assertion that 74% of the oil had been accounted for seemed too optimistic. They saw it another way: About half of the oil is probably gone for certain: skimmed, burned, siphoned or evaporated. They said the other half, including the 24% that has been "dispersed" but is underwater, is the real total of what's missing. Despite the largest oil-spill response in history, these 2.5 million barrels of oil will be cleaned up by the Gulf of Mexico, if at all.

Even if the government is right, and only 26 percent of the oil is left? That would still be 1.3 million barrels, five times the oil spilled from the Exxon Valdez in 1989. Federal officials said they were unsure what kind of damage the gulf oil had done, or will do, to fish and other species.

"In terms of the environmental impacts, the story is really not written yet," said Steve Murawski, a NOAA senior scientist. He said the analysis indicates "where the oil is. But you know, what did the oil do when it was there?" *Source: Washington Post, David A. Fahrenthold, 5 August 2010*

Feds Reviewing List of Endangered Species - Federal officials are reviewing whether the Delmarva fox squirrel (*Sciurus niger cinereus*) should remain on the list of endangered species. The Fish and Wildlife Service has begun a five-year review of the squirrel and four other species: the northeastern bulrush (*Scirpus ancistrochaetus*), Furbish lousewort (*Pedicularis furbishiae*), Chittenango ovate amber snail (*Novisuccinea chittenangoensis*) and Virginia round-leaf birch (*Betula uber*). The agency is asking for comments by 4 October. The fox squirrel, now found mostly on Maryland's Eastern Shore, has been listed as endangered since 1967. An environmental group announced in June that it planned to sue the U.S. State Department over a proposed training center in Queen Anne's County, saying the project would harm the squirrel. Federal officials later abandoned the project, citing community and environmentalist objections. Source: Associated Press, 4 August 2010



Delmarva Fox Squirrel (John White/USFWS)

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BCI Supports Forest Service Cave Closures - With White-nose Syndrome (WNS) threatening bats in the American West much sooner than expected, Bat Conservation International supports the emergency decision of the U.S. Forest Service Rocky Mountain Region to temporarily close all caves and abandoned mines on its lands in Colorado, Wyoming, South Dakota, Nebraska and Kansas. WNS has already decimated bat colonies throughout the eastern United States.

The fungus linked to this devastating wildlife disease reached Oklahoma and Missouri in May, putting western bats at imminent risk. States west of the Mississippi River had been spared the destruction of WNS, and wildlife managers had hoped the respite would last for a few more years. It did not.

White-nose Syndrome is the most severe threat ever faced by North American bats. More than one million bats have been killed by WNS since it was found in a single New York cave in 2006. Mortality rates at some hibernation sites have reached almost 100%, and species extinctions are increasingly likely. Top scientists are searching desperately for solutions, but they have found no means of curing or preventing this disease or even of slowing its disastrous spread.



Little brown bat with White Nose Syndrome (Photo: Ryan von Lindon, NY Dept of Environmental Conservation)

The one-year closure of western caves is an effort to buy time to examine all options. In this crisis, the decision is reasonable and prudent. Simply waiting for WNS to arrive before taking decisive action is far too risky. BCI expects the Forest Service to work with all relevant partners, including cavers, to identify caves and abandoned mines that can be reopened safely and to ensure that caves harboring bats are completely protected. We urge all caving enthusiasts to respect the closures to help delay the introduction of WNS into these new areas.

Most scientists agree that the primary means of spreading White-nose Syndrome is from bat to bat, especially since many species migrate over long distances. But scientists also cite strong, if circumstantial, evidence for the unintentional spread of the WNS-associated fungus from cave to cave by humans. The Forest Service notes that spores of the fungus have been found on caving gear. The U.S. Fish and Wildlife Service recommends very specific procedures for decontaminating gear and clothing after visiting caves. BCI employs these procedures throughout the country and urges everyone entering caves to do so.

White-nose Syndrome or the fungus associated with it has invaded 14 U.S. states and 2 Canadian provinces so far and has attacked nine bat species, including endangered Indiana and gray bats. All 25 hibernating bat species, more than half the 46 U.S. species, are clearly at risk from WNS. Its potential impact on non-hibernating species is unknown. Source: Bat Conservation International, Statement from Executive Director Nina Fascione, 28 July 2010

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