

September 26-30, 2010
Denver Zoo
Denver, Colorado

ORANGUTAN WORKSHOP

September 26-30, 2010

Denver Zoo

Denver, Colorado

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ORANGUTAN WORKSHOP

COMMITTEE MEMBERS

Ronda Schwetz
Primate Area Supervisor

Emily Insalaco
*Curator of Behavioral
Husbandry*

BJ Schoeberl
*Curator of Primates &
Carnivores*

Cindy Cossaboon
Primate Keeper

Molly Kainuma
Primate Keeper

Michelle Jordan
Primate Keeper

Jessica Grote
Primate Keeper

Jennifer Hickman
Primate Keeper

Chris Bobko
Pachyderm Keeper

Marley Steele-Inama
Education Resource Manager

Elaine Rowland
Events Specialist

Megan Woodcock
Special Events Coordinator

Rachel Anderson
School Programs Coordinator

Roxanne Davis
Corporate Giving Manager

Felise Buckheart
Corporate Events Manager

Louise Amador
Corporate Events Assistant

Carol Flohr
*Operations Clerical
Supervisor*

Mary Bradley
Director of Membership

Dear 2010 Orangutan SSP Workshop
Attendees and Guests:

We would like to welcome all of you to the mile high city of Denver, Colorado. We hope you enjoy your stay while you are here in this beautiful state. We are very excited to share with you all of the wonderful opportunities available to you before, during and after the workshop so be sure to ask the staff and volunteers for recommendations.

This year's theme is Conservation & Husbandry Innovations for the New Decade and we have a great program lined up for you, which includes both Dr. Willie Smits and Michelle Desilets as featured speakers this year. We hope to have many productive conversations about how we all can help conserve orangutans in the wild, while also providing the best captive care. We arranged the workshop to have themes each day. Monday will open with Dr. Smits and we will then focus on medical and husbandry issues. Tuesday's focus will be on training and enrichment with many practical aspects put in. Wednesday is the zoo day as well as poster sessions, the silent auction, and a dinner in Primate Panorama highlighting this wonderful section of Denver Zoo. Thursday closes with Michelle Desilets kicking off our conservation themed day.

We are honored this year to have attendees from three major orangutan rehabilitation facilities: The Sumatran Orangutan Conservation Programme, Samboja Lestari and Nyaru Menteng. Please spend time meeting and sharing experiences with these wonderful people. The opportunities to get together with old friends, make new ones and bring our worlds together in Denver is truly a dream come true.

Finally, we would like to thank the Orangutan SSP Steering Committee, Denver Zoo Primate Staff, Marketing Department and countless other volunteers who made this workshop a reality. We sincerely hope you enjoy your time this week and look forward to talking to each and every one of you!

Ronda Schwetz
Primate Area Supervisor, Denver Zoo



About Denver Zoo

A short story about a long history and a promising future...

It all began with a special gift to the mayor of Denver, a black bear named Billy Bryan. Today, Denver Zoo is one of the most popular zoos in the United States.

With an exciting 15-20 year master plan in place, the 21st century will see Denver Zoo transformed into an exciting conservation center that will continue to further the evolution of superb zoo exhibitory.

A direction for today and promise for tomorrow.

Denver Zoo Mission:

Secure a better world for animals through human understanding

Denver Zoo Core Values:

Protect – We passionately commit our expertise and resources to saving animals and ensuring their long-term survival.

Honor – We strive for excellence in everything we do. We treat our public, animals, volunteers and staff with respect. We conduct ourselves with integrity.

Innovate – We strive to discover creative solutions through progressive thinking, practices and partnerships.

Engage – We connect people with animals and create defining moments to inspire everyone to respect, value and care for the natural world.

Empower – We equip our guests, communities, volunteers and staff with the knowledge and tools to take positive action for all species.

Serve – We deliver exceptional service to our customers, our animals and one another. We are a trusted resource for our community and provide programs and services that make meaningful contributions to one's daily life.

General Information

Badges

Please make sure to wear your badges throughout the conference.

Business Services

Services that can be found at the hotel are:

- Copy service
- Fax service
- Messenger service
- Network/Internet printing
- Notary public
- Overnight delivery/pickup
- Post/parcel
- Secretarial service
- Translator

Conference Meals

All dinners and lunches are provided, including an icebreaker Monday, September 27 sponsored by Chandler Farms. An Indonesian Evening on Tuesday, September 28, will be provided by Phelps Great Ape Foundation. Zoo Day is Wednesday, September 28th.

Because some meals will not be provided, be prepared to go out on the town on your own or visit our zoo restaurant. Snacks and drinks will be available in the hospitality area in the Grasslands room.

Information

For information or questions about the workshop program please visit the registration table, the hospitality area in the Grasslands room, or contact a member of the host committee.

Message Board

There will be a message board available outside the Norgren Hall, Gates Center at the zoo.

No Smoking Policy

Smoking is not permitted in any area of the Denver Zoo grounds.

Raffle

There will be a 50/50 raffle throughout the workshop. Fifty percent goes to the winner of the raffle and 50 percent will go to orangutan conservation. Tickets are \$5 or six for \$25.

Silent Auction Donations

For those who are bringing silent auction items you can drop them off at the registration table either at the hotel or at the zoo. Please have donations dropped off by Tuesday.

Transportation

The Renaissance Hotel has a shuttle to and from Denver International Airport. Buses and/or zoo vans are provided for transportation to the Denver Zoo and off site events. Please see the workshop schedule for times and locations.

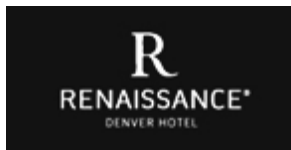
Cab Companies

Yellow Cab	303-777-7777
Metro Taxi	303-333-3333

Volunteers/Staff

Denver Zoo volunteers will be on zoo grounds to assist you throughout the workshop. They will be wearing Orangutan SSP Workshop T-shirts.

Conference Hotel Information



Renaissance Denver Hotel

3801 Quebec Street | Denver, Colorado 80207 USA

1-303-399-7500 | Fax 1-303-321-1966

1-800-Hotels-1 (1-800-468-3571) | www.RenaissanceDenver.com

Workshop Session Schedule

Saturday, September 25

SSP Members Only

8 a.m – 9 a.m.	Registration	Hotel – Front Lobby
8:30 a.m.	Leave for Cheyenne Mountain Zoo	Hotel – Front Lobby
10 a.m. – 3:30 p.m.	Tour CMZ	
3:30 p.m.	Depart CMZ for hotel	Pick up at Zoo Entrance
5 p.m. – 7 p.m.	Registration	Hotel – Front Lobby

Sunday, September 26

SSP Members Only

7:30 a.m. – 9 a.m.	Registration	Hotel – Front Lobby
9 a.m.	Depart for Denver Zoo in vans	Hotel – Front Lobby
9:30 a.m. – 3:30 p.m.	SSP Meetings at Denver Zoo	Johnson Conference Room Gates Center
3:15 p.m.	Depart Denver Zoo for hotel	Front Entrance
3:30 p.m. – 7 p.m.	Registration	Hotel – Front Lobby



Sunday, September 26

Workshop Attendees

7:30 a.m. – 9 a.m.	Registration	Hotel – Front Lobby
9 a.m.	Depart for Pre-conference trip in vans to Cheyenne Mountain Zoo	Hotel – Front Lobby
11 a.m. – 3:30 p.m.	Pre-conference Trip	Cheyenne Mountain Zoo
	<i>Take a scenic drive along the front range to Cheyenne Mountain Zoo located in Colorado Springs, CO. Nestled in the foothills of the Rocky Mountains, with Pikes Peak in the background, you'll enjoy 196 acres of pristine beauty and view over 700 animals at an elevation of 6,800 feet. WOW! www.cmzoo.org</i>	
	See handout for CMZ pre-conference trip details	
3:30 p.m.	Depart Cheyenne Mountain Zoo	Pick up at Zoo Entrance
3:30 p.m. – 7 p.m.	Registration	Hotel – Front Lobby
	<i>Last day of registration at hotel</i>	

Monday, September 27

7:30 a.m. – 8 a.m.	Depart for Denver Zoo	Hotel – Front Lobby
	Registration all day	Denver Zoo Gates Center
8:30 a.m. – 9 a.m.	Welcome	Norgren Hall, Gates Center
9 a.m. – 10 a.m.	Featured Speaker: Dr. Willie Smits	
	<i>“Saving the Red Apes: Looking Back, Looking Forward”</i>	
	<i>Willie Smits is a trained botanist who became a champion for orangutans and founded the Bornean Orangutan Survival Foundation (BOS) in 1991. Willie has continued to help wild orangutans throughout this time by developing rehabilitation centers and advocating tirelessly on their behalf. Currently Willie is working closely with Orangutan Outreach to help rescue displaced orangutans through the development of new rehabilitation centers on the islands of Borneo and Java.</i>	
10 a.m. – 10:30 a.m.	Break	Treetops, Gates Center

Monday, September 27

(continued)

10:30 a.m. – 12 p.m. Presentations Norgren Hall, Gates Center

Great Ape Cardiac Health Collaboration

Pam Dennis, Hayley Murphy, Ilana Kutinsky, William Devlin, Mary Ann Raghanti Cleveland Metroparks Zoo, Zoo Atlanta, Michigan Heart Group, Kent State University

OC 2010 Veterinary Workshop/Tuberculosis Testing

Doug Cress, Executive Director, PASA

Orangutans In The Mist: A Comparison Of Nebulizers To Treat Orangutan Airway Disease

Hayley Murphy, DVM, Zoo Atlanta

12 p.m. – 1 p.m. Lunch Norgren Hall, Gates Center

Sponsored by: Lenny's Subs

1 p.m. – 3 p.m. Presentations Norgren Hall, Gates Center

Menari – Back And Better Than Ever

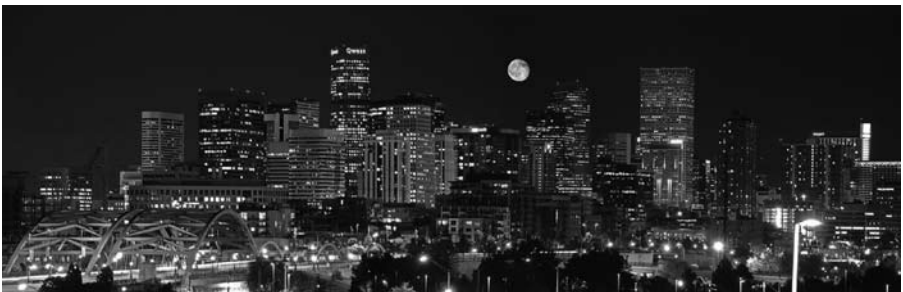
Abbie Davis, Cyndi Ratliff, Audobon Zoo

Intensive Care Of A Critical Ill Bornean Orangutan At Zoo Atlanta

Hayley Murphy DVM, Laura Mayo, Lori Perkins, Zoo Atlanta

The Orangutan Surrogate Hand Rearing And Birth Management Packet

Dusty Lombardi, Columbus Zoo, Carol Sodaro, Brookfield Zoo



3 p.m. – 3:15 p.m.	Break	Treetops, Gates Center
3:15 p.m. – 4:30 p.m.	Presentations	Norgren Hall, Gates Center
	The Center For Great Apes: Past, Present, Future	
	<i>Terry Hunnicut, Center for Great Apes</i>	
	Planning Presentation Part 1	
	I'm Not A Designer...But I Play One On Tv	
	<i>George Pond, Vice President of Planning, Denver Zoo</i>	
	<i>Every zoo profession eventually intersects with the design professions, by choice, coercion, or accident. The good news is each design is an opportunity to improve conditions and secure advancements for our animals, our staff, and ourselves. This presentation will be preparation for a design workshop on Wednesday.</i>	
4:30 p.m. – 5:30 p.m.	Depart Denver Zoo for hotel	Denver Zoo Front Entrance
6 p.m. – 6:30 p.m.	Busses to Icebreaker	Hotel – Front Lobby
	<i>A bus will run continuously between the hotel and icebreaker from 6-10 pm.</i>	
6:30 p.m. – 9 p.m.	Icebreaker	Downtown Loft
	<i>Sponsored by Chandler Farms</i>	
	Let the beauty of the Denver skyline enhance your evening at a trendy loft in downtown Denver. You'll enjoy an exquisite dinner and evening sponsored by Denver's very own Chandler Farm, founders of the Great Ape Paste body collection! www.chandlerfarmlifestyle.com	
9 p.m.	Depart Icebreaker for hotel OR stay for a night on the town*!	
	<i>*Transportation not provided back to hotel after the Icebreaker. Cabs are available downtown</i>	

Tuesday, September 28

7:30 a.m. – 8 a.m.	Depart for Denver Zoo	Hotel – Front Lobby
	Registration all day	Denver Zoo, Gates Center
8:20 a.m. – 8:30 a.m.	Announcements	Norgren Hall, Gates Center

Tuesday, September 28

(continued)

- 8:30 a.m. – 10 a.m. Presentations Norgren Hall, Gates Center
- Updates From Bali Conference***
Dough Cress, Orangutan Conservancy
- Evaluating Enrichment Devices With Denver Zoo Orangutans With The Goal Of Identifying Appropriate Options For Orangutans In Borneo***
Emily Insalaco , Denver Zoo
- Utilizing Colors To Provide More Challenging Enrichment***
Lynn Yakubinis, Zoo Atlanta
- 10 a.m. – 10:30 a.m. Break Treetops, Gates Center
- 10:30 a.m. – 12 p.m. Enrichment Workshops Norgren Hall, Gates Center
- Danielle Fogarty of Brookfield Zoo will lead the delegates through an enrichment design and building challenge.*
- Review Otto Environmental video in Indonesia*
- 12 p.m. – 1 p.m. Lunch Norgren Hall, Gates Center
- Sponsored by Denver Zoo Volunteers*
- 1 p.m. – 1:30 p.m. Enrichment Workshop Breakout Norgren Hall, Gates Center
- 1:30 p.m. – 2:30 p.m. Presentations Norgren Hall, Gates Center
- Using A Natural Behavior Orangutan Show To Promote Orangutan Conservation***
Mandy Hollingsworth, Heidi Genter, Debbie Fenton, Dina Bredahl, Megan Sanders, Cheyenne Mountain Zoo
- Human Intervention In The Rearing Of An Infant Bornean Orangutan (Pongo Pygmaeus Pygmaeus): A Failed Attempt At Maternal Training Of A Birth Mother, The Subsequent Human Hand-Rearing And A Successful Introduction Of An Infant To A Surrogate Orangutan Mother***
Laura Laverick, Courtney Murray and James Sanford, Kansas City Zoo
- Laura Laverick, Courtney Murray and James Sanford, Kansas City Zoo*



2:30 p.m. – 3 p.m. Break Treetops, Gates Center

3 p.m. – 4:15 p.m. Roundtable Training Topics Norgren Hall, Gates Center

4:15 p.m. – 4:30 p.m. Presentation

How To Host Your Own Workshop

Carol Sodaro, Brookfield Zoo, Terri Hunnicutt, Center for Great Apes, Tom Heitz, Emory University/YNPRC

This presentation will focus on how the Orangutan SSP Husbandry Workshop came into being. It will also look at the past three workshops (Brookfield Zoo – 2007, St. Louis Zoo – 2008, & Zoo Atlanta – 2009) and the lessons that have been learned which will be discussed by each workshops coordinator. Lastly, we will take a look at the new Orangutan SSP Husbandry Workshop Hosting Manual. This new manual will serve as a guide for those zoos who are interested in hosting future workshops.

4:30 p.m. – 5 p.m. Busses back to Hotel Zoo Entrance

5:45 p.m. – 6:30 p.m. Busses to Dinner Event Hotel – Front Lobby

6:30 p.m. – 9 p.m. Indonesian Evening Ronna Phelps’s Home
Hosted by Phelps Great Ape Foundation

*Top off the last day of lectures and discussions on these red haired apes at an enchanted “Indonesian Evening”. The Phelps Great Ape Foundation will sponsor this refreshing evening where you’ll be able to immerse yourself in an amazing Rocky Mountain sunset while you enjoy marvelous cuisine and cocktails.
www.phelpsgreatape.com*

9 p.m. Busses back to hotel
Only two busses will return to the zoo. Please be on either the 9:30 or the 10:00 bus.

Wednesday, September 29

- 7:30 a.m. – 8 a.m. Depart for Denver Zoo Hotel – Front Lobby
Registration all day Denver Zoo, Gates Center
- 8:20 a.m. – 8:30 a.m. Announcements Norgren Hall, Gates Center
- 8:30 a.m. – 10 a.m. Planning Presentation Part 2
Exhibit Design Workshop
George Pond, Vice President of Planning, Denver Zoo
Get ready to play your next role as a zoo designer, as you are challenged to design your own "zootopia" exhibit! This will build on Monday's Planning Presentation Part 1.
- 10 a.m. – 12 p.m. Tour Denver Zoo
**Details will be provided on Zoo Day*
- 12 p.m. – 1 p.m. Lunch Conoco Pavilion
Sponsored by: Denver Zoo
**Meal vouchers will be provided for Samburu Grill*
- 1 p.m. – 3:30 p.m. Tour Denver Zoo
**Details will be provided on Zoo Day*
- 1 p.m. – 9:30 p.m. Busses will be running continuously to the hotel from the zoo
- 3:30 p.m. – 5 p.m. Poster Presentations Primate Panorama
Providing Orangutans With Appropriate Nest Building Resources – Survey Results And Suggestions
Christine M. Cassella & Kristen E. Lukas, Cleveland Metroparks Zoo – Conservation & Science
Is A Kaleidoscope And Effective Form Of Enrichment For Great Apes?
Emily Johnson, Chimp Haven, Amy Fultz, Zoo Atlanta
Impact Of Graphics On Zoo Visitors
Linda Velasquez, Seneca Park Zoo
Orangutan Ultrasound 101
Cindy Cossaboon, Ronda Schwetz, and Jessica Grote, Denver Zoo
Spacebottle? What Is The Significance?
Cindy Cossaboon, Ronda Schwetz and Jessica Grote, Denver Zoo

5 p.m. – 6:30 p.m.	Silent Auction <i>Event will be outside, if weather permits</i>	Primate Panorama
6:30 p.m. – 9 p.m.	Dinner <i>Provided By Denver Zoo</i>	Primate Panorama
9 p.m.	Busses return to hotel	Denver Zoo Front Entrance

Thursday, September 30

7:30 a.m. – 8 a.m.	Depart for Denver Zoo Registration all day	Hotel – Front Lobby Denver Zoo, Gates Center
8:20 a.m. – 8:30 a.m.	Announcements	Norgren Hall, Gates Center
8:30 a.m. – 9:30 a.m.	Featured Speaker: Michelle Desilets <i>“Sustainable Solutions for Orangutan Survival: Challenges and Opportunities”</i> <i>Michelle Desilets has been a tireless activist of orangutans. She is a key player in getting out the messages on how palm oil can be a threat to the survival of orangutans and how to look at producing sustainable palm oil. Michelle founded and was the Executive Director of Borneo Orangutan Survival Foundation-UK in order to help support and spread the word about Nyaru Menteng which holds over 600 orangutans. Michelle is currently the Executive Director of Orangutan Land Trust which is focusing on preserving large tracts of land in Indonesia for orangutans.</i>	Norgren Hall, Gates Center
9:30 a.m. – 10 a.m.	Break	Treetops, Gates Center



Thursday, September 30

(continued)

- 10 a.m. – 12 p.m. Presentations Norgren Hall, Gates Center
- Conservation In The Kinabatangan Corridor**
Felicity Oram; Kinabatangan Orang-utan Conservation Project / Woodland Park Zoo
- Adventures In Sumatra: Looking At Ways Zoos Can Help**
Dallas Meads & Cindy Cossaboon, Denver Zoo
- Joining Denver Zoo's Orangutan Conservation Partnership With Samboja Lestari – A Report From The First Guinea Pig Test Group**
Megan Elder, Como Park Zoo & Conservatory, Danielle Fogarty, Chicago Zoological Society/Brookfield Zoo
- Orang-Utan Reintroduction: Are We Getting It Right?**
G.L. Banes; University of Aberdeen, Scotland U.K., University of Cambridge, U.K., S.B. Piertney; University of Aberdeen, Scotland, U.K., B.M.F. Galdikas; Simon Fraser University, Burnaby, B.C., Canada, L.A. Knapp; University of Cambridge, U.K.
- 12 p.m. – 1 p.m. Lunch Norgren Hall, Gates Center
Sponsored by: Chipotle
- 12 p.m. – 3 p.m. Busses will run continuously to hotel
- 1 p.m. – 2:30 p.m. Presentations Norgren Hall, Gates Center
- Palm Oil Awareness – Ground-Truthing In Indonesia & Malaysia**
Dina Bredahl, Mandy Hollingsworth, Cheyenne Mountain Zoo, Carol Sodaro, Brookfield Zoo
- Palm Oil Awareness – Cheyenne Mountain Zoo Initiative**
Dina Bredahl & Mandy Hollingsworth, Cheyenne Mountain Zoo
- The Birth of Sintang**
Richard Zimmerman, Orangutan Outreach
- 2:30 p.m. – 2:45 p.m. 2011 Orangutan SSP Host Reveal
- 2:45 p.m. – 3:15 p.m. Wrap-up

Presentations and Posters

Monday

“Saving The Red Apes: Looking Back, Looking Forward”

Featured Speaker: Dr. Willie Smits

Willie Smits is a trained botanist who became a champion for orangutans and founded the Bornean Orangutan Survival Foundation (BOS) in 1991. Willie has continued to help wild orangutans throughout this time by developing rehabilitation centers and advocating tirelessly on their behalf. Currently Willie is working closely with Orangutan Outreach to help rescue displaced orangutans through the development of new rehabilitation centers on the islands of Borneo and Java.

Great Ape Cardiac Health Collaboration

Pam Dennis, Hayley Murphy, Ilana Kutinsky, William Devlin, Mary Ann Raghanti, Cleveland Metroparks Zoo, Zoo Atlanta, Michigan Heart Group, Kent State University

Heart disease is a major cause of death for adult great apes in AZA institutions. Last year, a workshop including physicians, veterinarians, pathologists, and keepers was held at Milwaukee County Zoo to review what is known about great ape cardiac health. This workshop marked the beginning of the Great Ape Cardiac Disease Project, an initiative to improve our understanding of great ape cardiac health and ways to manage and prevent disease in these species in zoos. Capitalizing on the energy that generated this Project, we initiated a prospective study to evaluate specific blood tests as prognostic indicators of heart disease, as well as to examine possible risk factors associated with the development of heart disease. This work should provide improved means of assessing cardiac disease, and possibly indicate ways in which we can prevent the development of disease.

A clustering of abnormalities including obesity, hyperglycemia, hyperinsulinemia, dyslipidemia, and hypertension has been termed “insulin resistance syndrome” or “metabolic syndrome” in humans, and these findings are strongly associated with cardiovascular disease. Defining this syndrome in people requires evaluation of multiple serologic parameters, including insulin, glucose, leptin, oxidized LDL, cholesterol and triglycerides. We have an on-going study examining the relationship between these serum markers and cardiac disease in captive gorillas. Given the problems with cardiac disease amongst the other great ape species housed in zoos, we seek to expand this study to determine whether these parameters correlate with heart disease in captive orangutans, bonobos, and chimpanzees.

OC 2010 Veterinary Workshop / Tuberculosis Testing

Doug Cress, Executive Director, PASA

The Orangutan Conservancy (OC) confirmed its commitment to conservation through capacity building in Southeast Asia by staging the OC 2010 Veterinary Workshop in Sumatra in early August, the second straight year the OC has gathered dedicated veterinarians and healthcare workers from the orangutan rehabilitation centers for a week of training. Over 30 delegates from Borneo and Sumatra took part in the workshop, which focused on not only developing skills – vital to the survival of the orangutans they treat – but also on building relationships, which will help them become key decision-makers in the future. As an added element, the OC 2010 Veterinary

Workshop focused on tuberculosis (TB) testing, as part of a joint project between OC, Chembio Diagnostics, and Murdoch University. All of the 1,500-plus orangutans in rehabilitation centers will be tested for TB as part of a massive health protocol and as an initial screening for potential reintroduction candidates, and the workshop worked closely with the delegates to ensure standardized testing procedures and results.

Orangutans In The Mist: A Comparison Of Nebulizers Available To Treat Orangutan Airway Disease

Hayley Murphy, DVM, Zoo Atlanta

Nebulizers have been used for many years in human medicine to treat airway diseases such as asthmas, cystic fibrosis, chronic obstructive pulmonary disease and other respiratory diseases. All nebulizers are designed to break up drugs in the form of solutions and suspensions into small droplets that then can be aerosolized and inhaled, thereby delivering the medication directly to the respiratory system. These medications can be aerosolized by one of several methods including using oxygen, compressed air, or ultrasonic power. When considering using a nebulizer for therapy of respiratory tract disease in orangutans, it is important to evaluate nebulizer efficiency, speed, cost, ease of use, droplet size and lung penetration of the drugs. The three types of nebulizers to consider include the jet nebulizer, the ultrasonic wave nebulizer, and the ultrasonic vibrating mesh nebulizer.

Menari – Back And Better Than Ever

Abbie Davis, Cyndi Ratliff, Audobon Zoo

Last year we introduced the world to Menari, our newborn female Sumatran Orangutan. This year we would like to update everyone on the progress she has made and the husbandry protocols we implemented to ensure that she grew up to be a happy, healthy little ape. In this presentation, we will touch on the issues we faced while hand-raising Menari and how we prepared both the Orangutans and the keepers for reintroductions. We will explain the milestones we went through while trying to teach Menari to be a proper Orangutan, including how to grasp onto someone while being carried, how to crawl, and how to climb. We will give an in depth description of the first year of Menari's life and how important it is to make sure she has a solid foundation of nurturing and care to make sure she learns everything she needs to know in order to be a successful member of the Orangutan group. Video footage will be used to demonstrate daily interactions between Menari and the keepers and Menari and her parents. We would like to share all that we have learned with everyone in the Orangutan community and hopefully everyone can benefit from our experience with Menari.

Intensive Care Of A Critical Ill Bornean Orangutan At Zoo Atlanta

Hayley Murphy DVM, Laura Mayo, Lori Perkins, Zoo Atlanta

On March 30, 2010 a male Bornean Orangutan (*Pongo pygmaeus pygmaeus*) was born after an abnormal gestation with maternal illness. At birth the infant appeared critically small and underwent a significant period of anoxia. The infant was pulled for hand-rearing on April 2, 2010 and required extensive medical care due to several medical problems including probable intrauterine growth retardation, anemia, congenital abnormalities of the umbilical cord and placenta, pulmonary distress, weak suckle response, congenital heart defect, inguinal hernias, pulmonary hypertension and a seizure like disorder. Twenty four hour care was provided by a

team of neonatal intensive care nurses and extensive cooperation between neonatal specialists, pediatricians and veterinarians enabled the level of intensive care provided to this animal possible.

The Orangutan Surrogate Hand Rearing And Birth Management Packet

Dusty Lombardi, Columbus Zoo, Carol Sodaro, Brookfield Zoo

The surrogate hand rearing birth management committee of the APE TAG is producing packets to send out to all zoos that have breeding recommendations of the species covered under the TAG. It is the belief of the TAG that getting your birth management plan in place can help in a successful birth and mother rearing experience. The Gorilla packet was produced in 2009 and disseminated after the master plan meeting to assist zoos in readying them selves for the birth of gorillas. The Orangutan packet is now complete and will be presented at this meeting. The packet includes the following and will be sent to all zoos receiving a breeding rec from this master plan meeting



Introduction

Orangutan SSP Surrogate list

Excerpts from the Orangutan Husbandry Manual

- Development, Reproduction and Birth Management
- Hand Rearing
- Surrogate Mother Case Histories
- Infant Development
- Introductions
- Record Keeping Recommendations

Maternal Training

- Busch Gardens: Maternal Training, Hand Rearing, Surrogate Introduction
- Houston Zoo: Maternal Training

Birth Management Plans

- Philadelphia Zoo: Birth Management Plan
- Brookfield Zoo: Birth Management Plan
- Cheyenne Mountain Zoo: Birth Management Plan
- St. Paul's Como Zoo: Birth Management Plan
- Phoenix Zoo: Birth Management Plan
- Audubon Zoo: Birth Management and Hand Rearing

Surrogate Introductions

- Houston Zoo: Surrogate Introduction
- Kansas City Zoo: Birth Management, Surrogate Rearing, Introduction

Hand Rearing Protocols

- Cheyenne Mountain Zoo: Birth Protocol and Hand Rearing Records
- Jersey Wildlife Preservation Trust, Metro Toronto Zoo, National Zoo, Brookfield

Zoo: Hand Rearing Notes

- Jersey Wildlife Preservation Trust: Hand Rearing, Development & Introduction of a neurologically ill Sumatran Orangutan
- St. Paul's Como Zoo: Birth Summary of Events

Hand Rearing Protocol: Orangutan Husbandry Manual
Audubon Zoo: Hand Rearing Records
Misc Information
Pittsburgh Zoo & Aquarium: Orangutan Husbandry (Response to a Medical Crisis)
Weights of Newborn & Young Orangutans: Nuremberg, Germany
Dentition, Milk Composition, Weight Chart
Wild Orangutan Birth: Birute Galdikas, Indonesia
Lactation: Use of Reglan (Metoclopramide) to Increase Maternal Milk Supply

DVDs

1. Utah's Hogle Zoo: Orangutan Hand Rearing & Reintro Info
2. Utah's Hogle Zoo: Maternal/ Intro Training
3. Brookfield Zoo: Birth 5/1/98
4. Brookfield Zoo: Introduction 1/14/88
5. Houston Zoo: Birth Management
6. Denver Zoo: Orangutan Birth & Reintro
7. Fort Wayne Children's Zoo: Hand Raising

The Center For Great Apes: Past, Present, Future

Terri Hunnicut, Center for Great Apes

"The Center for Great Apes mission is to provide a permanent sanctuary in a safe and enriching environment for orangutans and chimpanzees in need of lifetime care."

With this simple but powerful statement as a guide, The Center for Great Apes was established as a not-for-profit animal sanctuary in 1993 in Florida by our Founder, Patti Ragan. Pongo, Christopher, Grub and Kenya were among the first residents, all young apes originally designated for life as performers or breeders in the entertainment industry. As they have matured, the Center has also experienced an enormous time of growth and change, without losing sight of its purpose. Perhaps the most obvious change is in the number of residents—from a handful to forty three, of which fourteen are orangutans, all former pets or performers. Their stories are both lessons of the past and hope for the future. This presentation will attempt to familiarize everyone with the Center's story, and our future plans, which includes an intimate look at life in sanctuary and the continuing need for committed, appropriate, lifetime care of great apes bred and kept outside of the auspices of accredited facilities.



I'm Not A Designer...But I Play One On Tv

George Pond, Vice President of Planning, Denver Zoo

Every zoo profession eventually intersects with the design professions, by choice, coercion, or accident. The good news is each design is an opportunity to improve conditions and secure advancements for our animals, our staff, and ourselves. This presentation will be preparation for a design workshop on Wednesday.

Tuesday

Evaluating Enrichment Devices With Denver Zoo Orangutans With The Goal Of Identifying Appropriate Options For Orangutans In Borneo

Emily Insalaco, Denver Zoo

As part of a partnership between Denver Zoo and rehabilitation centers in Borneo, zoo employees are working to help improve the husbandry for the orangutans (*Pongo spp*) in the Indonesian facilities' care. A component of that partnership includes addressing the enrichment needs and challenges of those larger, sometimes understaffed and underfunded, facilities. Denver Zoo employees and Otto Environmental, Inc. developed new enrichment feeding devices to meet the specific needs and behavioral goals of the centers in Borneo and then tested the devices with Denver Zoo orangutans. We conducted an observation study, collecting continuous data during baseline, control and feeding device testing conditions. We compared duration of time spent in locations and positions, and time spent performing behaviors, across those conditions for each animal in order to evaluate the devices' effect on orangutan behavior. The data showed an increase in use of elevated portions of the cages and a decrease in time spent on the ground. They also showed a decrease in inactivity, and an increase in foraging and locomotion, thereby confirming that the devices were effective enrichment items. The unintended result of the study was that we have made a contribution to orangutan enrichment in the zoo community. In addition, this project demonstrated an opportunity to effectively apply *ex situ* research to conservation related problems.

Utilizing Colors To Provide More Challenging Enrichment

Lynn Yakubinis, Zoo Atlanta

All AZA institutions agree that enrichment is an integral part of the captive husbandry of orangutans. During Willie Smits' presentation at last year's orangutan workshop, he mentioned an enrichment concept he had integrated into an orangutan exhibit. This concept utilized colors and gave the orangutan a problem to solve (using the public's help) in order to receive a treat. Listening to this presentation, gave me new insight into what orangutans are capable of and how the enrichment we provide them could become more complex and allow them to problem solve in new ways.

The original design that I created was to give the orangutans colored blocks, then show them a sheet of paper featuring one or more of those colors as well as a photo of a treat item. The idea is that they have to put their colored blocks in the same order as is on the paper to receive the treat. This concept can be varied in numerous ways to challenge the orangutans. Additional colors and patterns can be used as well as providing several patterns that allow the orangutan to choose which treat they would like to receive based on which pattern they choose.

Orangutan caregivers are continuing to learn about the complexity of an orangutan's problem solving ability. This knowledge should encourage us to modify the enrichment we provide to continue to challenge them and allow them to problem solve as they would in the wild.

Using A Natural Behavior Orangutan Show To Promote Orangutan Conservation

Mandy Hollingsworth, Heidi Genter, Debbie Fenton, Dina Bredahl, Megan Sanders, Cheyenne Mountain Zoo



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In an effort to engage our guests and educate them about the animals we care for each day, Cheyenne Mountain Zoo animal staff has developed several shows throughout the zoo. The shows feature the animals doing natural, species appropriate behaviors which are trained using operant conditioning techniques. Because of our involvement with orangutans and the palm oil crisis, orangutans were one of the species chosen when we first decided to do the shows. This paper and presentation will describe aspects of developing and implementing the orangutan show, including:

Why the zoo chose to start the shows.

- Keeper buy-in.
- Keeper training and lectures from Natural Encounters, Inc., including learning and improving operant conditioning and public speaking skills.
- How we changed and improved our training program in order to teach the show behaviors.
- Some of the specific behaviors we trained, how we trained them, and why we chose those behaviors.
- Educating our guests about orangutan behaviors as they are witnessing them.
- How this show has given us an exciting and engaging platform to educate our guests about orangutan conservation and the palm oil crisis.

### **Human Intervention In The Rearing Of An Infant Bornean Orangutan (*Pongo Pygmaeus Pygmaeus*): A Failed Attempt At Maternal Training Of A Birth Mother, The Subsequent Human Hand-Rearing And A Successful Introduction Of An Infant To A Surrogate Orangutan Mother**

*Laura Laverick, Courtney Murray and James Sanford, Kansas City Zoo*

In 2008, the Kansas City Zoo received a Species Survival Plan (SSP) recommendation to breed two Bornean orangutans housed at the zoo's orangutan facility. The breeding was successful and fetal development was monitored regularly through ultrasound. The next year, a female Bornean orangutan named Kalijon was born. Even after months of preparation and a maternal training program, the birth mother refused to let the baby nurse. Although the standard recommendation

is to wait seventy-two hours before permanently pulling an orangutan infant for hand-rearing, it was believed that Kalijon's well being was at stake and consequently, she was removed after thirty hours. For the following five months, Kalijon was hand reared by human caregivers twenty-four hours a day. As she developed and her needs changed, a program was put in place to encourage her physical and mental development, ensure her health, and maintain her orangutan identity. During this five month time period, another female Bornean orangutan housed at the Kansas City Zoo was selected as an excellent candidate for surrogacy and was trained to cooperate with staff in Kalijon's continued care once the infant was turned over to her. The introduction was a complete success and considered one of the earliest of its kind.

### **How To Host Your Own Workshop**

*Carol Sodaro, Brookfield Zoo, Terri Hunnicutt, Center for Great Apes, Tom Heitz, Emory University/YNPRC*

This presentation will focus on how the Orangutan SSP Husbandry Workshop came into being. It will also look at the past three workshops (Brookfield Zoo – 2007, St. Louis Zoo – 2008, & Zoo Atlanta – 2009) and the lessons that have been learned which will be discussed by each workshops coordinator. Lastly, we will take a look at the new Orangutan SSP Husbandry Workshop Hosting Manual. This new manual will serve as a guide for those zoos who are interested in hosting future workshops.

## **Wednesday**

### **Impact Of Graphics On Zoo Visitors**

*Linda Velasquez, Seneca Park Zoo*

We will measure if there is a difference in visitor interest in reading a graphic which portrays individual orangutans exhibited at Seneca Park Zoo (e.g. A Family Tree) versus a simple conservation message (e.g. Sustainable Palm Oil Industry). An observer will measure the amount of time (noon to 1 pm on a Wednesday and Saturday) the zoo visitor spends reading each graphic. The two graphics will be displayed on alternating weeks for 8 one hour episodes. Our hypothesis is that visitors will spend more time reading the graphic with zoo-specific orangutan profiles than a graphic with a simple conservation message. If this is true, we will combine the conservation message with a zoo-specific more personal graphic to increase the opportunity to convey our conservation message.

### **Providing Orangutans With Appropriate Nest Building Resources – Survey Results And Suggestions**

*Christine M. Cassella & Kristen E. Lukas, Cleveland Metroparks Zoo – Conservation & Science*

Currently, there are not clear standards for the types and quantity of nest building materials that should be provided to captive orangutans. This poster will present preliminary results from a survey of institutions which house orangutans and aims to provide information on current practices that will offer a basis for the discussion of minimum standards regarding nest building materials. In addition, the survey will gather data regarding where the materials are currently placed by keepers, where orangutans build their nests in their enclosures, and the quality of nests seen in relation to these factors. These data will help aid in management decisions to ensure the highest level of care is provided to orangutans to meet their nest building needs, and the information will eventually be reported in the orangutan Animal Care Manual as well as a scientific publication.

## Is A Kaleidoscope An Effective Form Of Enrichment For Great Apes?

*Emily Johnson, Chimp Haven, Amy Fultz, Zoo Atlanta*

Environmental enrichment programs have become common in most institutions housing captive primates. Providing novel enrichment is difficult because primates can habituate to it. Varying enrichment as well as introducing new and novel ideas is key for the mental, physical, and social well being of captive primates. A kaleidoscope was designed in an attempt to create a new, novel, non-food related enrichment device for great apes. Every time a kaleidoscope is used the "view" is different, which would make it consistently novel. The kaleidoscope was designed to hang on the outside of the enclosure but still allow the apes to have control over the changing "view". Giving the apes the ability to interact with the device and change what they see was important to the design. This poster assesses a kaleidoscope as a form of enrichment for great apes. The device was originally designed for orangutans and then modified to be tested on chimpanzees. Each of the seven chimpanzee (n=62) groups tested were given access to the kaleidoscope for five, 15 minute trials. During each trial, the amount of time each individual spent interacting with the device was recorded. The chimpanzees as a whole were active with the device 236.75 minutes of the total 525 minutes they had access to it. Males (n=34) spent 126.3 minutes and females (n=28) spent 123 minutes interacting with the device. Data for the chimpanzees was collected systematically; future plans include systematic data collection for orangutans and gorillas in order to compare the three species.

## Orangutan Ultrasound 101

*Cindy Cossaboon, Ronda Schwetz, and Jessica Grote, Denver Zoo*

This poster will talk about the training steps that were taken to successfully take multiple ultrasound pictures throughout 0.1 orangutan Nias' pregnancy. We also, discuss the challenges we encountered throughout the various steps in the training process.

## Spacebottle? What Is The Significance?

*Cindy Cossaboon, Ronda Schwetz, and Jessica Grote, Denver Zoo*

We will discuss the spacebottle and how it helped us temporarily assist rear an infant orangutan. It is a devise created by Denver Zoo staff that enabled us to feed the infant through the mesh holding while with her mother.



# Thursday

## **“Sustainable Solutions For Orangutan Survival: Challenges And Opportunities”**

*Michelle Desilets*

Michelle Desilets has been a tireless activist of orangutans. She is a key player in getting out the messages on how palm oil can be a threat to the survival of orangutans and how to look at producing sustainable palm oil. Michelle founded and was the Executive Director of Borneo Orangutan Survival Foundation-UK in order to help support and spread the word about Nyaru Menteng which holds over 600 orangutans. Michelle is currently the Executive Director of Orangutan Land Trust which is focusing on preserving large tracts of land in Indonesia for orangutans.

### **Conservation In The Kinabatangan Corridor**

*Felicity Oram; Kinabatangan Orang-utan Conservation Project / Woodland Park Zoo*

This study aims to better understand development to independence of orang-utans in the conservation context of fragmented habitat. Data on parent-reared development in the wild is relatively incomplete particularly with respect to the Bornean species (van Noordwijk et al. 2009).

The largest remaining population of the Endangered Bornean orang-utan (*Pongo pygmaeus morio*) live in the Malaysian state of Sabah. Although observed in other habitats, orang-utans were historically thought to require intact primary forest for survival. The Kinabatangan Orang-utan Conservation Project (KOCP) has found orang-utans can cope in the previously logged forest of the Lower Kinabatangan River Wildlife Sanctuary (LKWS) (Lackman–Ancrenaz et al. 2001).

Like other primates in general and Hominids in particular, young orang-utans are highly adaptable but still require a long childhood to learn the necessary skills for successful adulthood (Fairbanks and Pereira 2002). Development to independence is a precursor to dispersal of young adults from their natal range but is not well understood in this species (Goossens et al. 2005). Ten percent of the remaining wild orang-utans in Sabah live in the protected LKWS forest fragments that are surrounded by oil palm plantations (Ancrenaz et al. 2005). Recent studies have shown the genetic diversity currently remains high in this area (Goossens et al. 2006). A low rate of dispersal (1-3% or 7-21 animals per year) would provide for long-term viability according to Marshall et al. (2009). But this assumes dispersing individuals have safe passage between fragments. If these animals are lost during dispersal, this will result in a steady decline to extinction of the orang-utans in this protected area (Marshall et al. 2009).

Therefore, this established research site (KOCP) with eleven years of continuously collected data, including genetics, on habituated wild orang-utans provides an ideal setting for further study of the key life history variable of development and adaptability in over logged fragmented forest. This will complement earlier work on the eco-ethology of this endangered great ape, contribute to the future management of orang-utans in the LKWS, and, in so doing, their long-term viability in the wild.

### **Adventures In Sumatra: Looking At Ways Zoos Can Help – Part 1**

*Dallas Meads, Denver Zoo*

Dallas has been employed at the Denver Zoo for over 30 years, he holds a Construction B Supervisor Certificate for the past 25 years. He is often sought out for his knowledge in design,



fabrication, construction, and innovation in problem-solving skills. Among his numerous accomplishments, Dallas recently added his technical expertise in collaboration with a Professional Team from the Denver Zoo to Indonesian. This past May, the Team was joined by Dr. Ian Singleton-SOCP Director, to visit the Sumatra Orangutan Conservation Program's (SOCP) facility and the site of their proposed conservation and education center, and additionally, with the administration from the Borneo Orangutan Survival Foundation (BOS) in Samboja, East Kalimantan.

Dallas will be presenting on the construction, maintenance, and training issues in these third world countries, as well as, presenting opportunities for further development of exchange programs in the education and training of natives in the facilities and maintenance field.

## **Adventures In Sumatra: Looking At Ways Zoos Can Help – Part 2**

*Cindy Cossaboon, Denver Zoo*

This presentation discusses how a team of zoo professionals from Denver Zoo, Brookfield Zoo and Como Zoo came to Sumatra with the goal to work with the Sumatran Orangutan Conservation Programme (SOCP), our collaboration with their botanical garden project, and our visit to Bukit Lawang. We will address and outline how others can help with these projects and Dr. Serge Wich's Orangutan census in Sumatra.

## **Joining Denver Zoo's Orangutan Conservation Partnership With Samboja Lestari – A Report From The First Guinea Pig Test Group**

*Megan Elder, Como Park Zoo & Conservatory, Danielle Fogarty, Chicago Zoological Society/ Brookfield Zoo*

With the immediate goal of this partnership for staff to exchange information in an effort to improve the care of captive orangutans by using species appropriate enrichment, Megan Elder and Danielle Fogarty, along with Denver Zoo staff, Ronda, Cindy and Dallas, set out to develop this project at Samboja Lestari (SL) in Borneo during May 2010. With coordination from both REACT and Vier Photen, our group was able to work intensely with staff at SL to improve the welfare and well-being of the orangutans housed at SL and Wanariset. With only 8 days to accomplish improvements for the orangutans housed in the various facilities at SL, including quarantine, forest school, socialization cages, the islands and Wanariset, these guinea pigs offered their insight during a comprehensive planning meeting as well as provided resources for staff to use when developing an ongoing enrichment program. Group efforts consisting of mixed American and Indonesian workgroups proved productive and inspiring and with limited resource availability, the lives of more than 40 orangutans were directly improved and enriched during that short time. With another successful trip achieved, this project continues to develop future initiatives and partnerships in the subsequent projects to come.

## **Orang-Utan Reintroduction: Are We Getting It Right?**

*G.L. Banes; University of Aberdeen, Scotland U.K., University of Cambridge, U.K., S.B. Piertney; University of Aberdeen, Scotland, U.K., B.M.F. Galdikas; Simon Fraser University, Burnaby, B.C., Canada, L.A. Knapp; University of Cambridge, U.K.*

A rapid decline in suitable habitat, combined with poaching and the pet trade, has resulted in large numbers of displaced orang-utans: more than 1,000 individuals are currently held in care centres and are awaiting re-release. AZA Guidelines recommend that the genotype of reintroduced orang-utans should match that of "the specific geographical region of the reintroduction."



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In practice, few orang-utans have been genotyped prior to their release. As a consequence, individuals of different genetic origins are frequently mixed and are allowed to inter-breed, forming substantial 'rehabilitant' populations comprising orang-utans of different origins and subspecies. Almost nothing is known about reproductive success when individuals such as these, from a variety of habitats, are brought together under artificial conditions. We are investigating the effects of such inter-breeding at Camp Leakey in Tanjung Puting National Park, a site dedicated to the rehabilitation and re-release of ex-captives from 1971 to 1985. The site remains home to a large population, comprising individuals brought together from a wide range of locations across Borneo. Third- and fourth-generation orang-utans now regularly frequent the Camp. We generated mitochondrial DNA (hyper-variable) sequences for 35 orang-utans at Camp Leakey, to examine genetic diversity and relatedness within the population. Individuals rarely shared the same mitochondrial genotype and genetic differences were striking. Here, we will present data on mitochondrial DNA diversity and discuss these results in light of paternity and mate choice in displaced orang-utans. We will conclude with a review of the genetic considerations necessary for future orang-utan reintroduction efforts.

Palm Oil Awareness: Ground-Truthing In Indonesia & Malaysia

Dina Bredahl, Mandy Hollingsworth, Cheyenne Mountain Zoo, Carol Sodaro, Brookfield Zoo

Cheyenne Mountain Zoo partnered with Brookfield Zoo in May/June 2010, as we traveled to Indonesia and Malaysia. Our purpose was to research the Palm Oil Crisis first hand and see for ourselves exactly what is happening in Borneo and Sumatra. We went with the intent to research the following topics:

- Palm oil produced sustainably and unsustainably
- Effectiveness of the RSPO (Roundtable for Sustainable Palm Oil)
- Palm oil as a source of bio-fuel

- Pulp and paper industry
- Effects of the palm oil industry on indigenous people
- Other threats to orangutans and their rainforest habitat
- Creating Corridors
- Reforestation Projects
- Ecotourism
- Other sustainable livelihoods for indigenous people

The organizations that worked with us and helped plan our research were: SOCP, KOCP, GPOCP (Yayasan Palung). We were able to meet with many other organizations including FFI, Nature Conservancy, RSPO, International Animal Rescue and Gemawan. Additional important research was done during our visits to two certified sustainable palm oil plantations, one in Malaysia and one in Indonesia.

We would like to present our experiences, findings and recommendations to the Orangutan SSP.

Palm Oil Awareness: Tools For Zoos, Researched In Indonesia & Malaysia

Dina Bredahl; Cheyenne Mountain Zoo, Mandy Hollingsworth; Cheyenne Mountain Zoo, & Carol Sodaro; Brookfield Zoo

Three years ago, Cheyenne Mountain Zoo became a leader among our peers in taking action against the Palm Oil Crisis, which is threatening the very survival of orangutans. In May/June 2010 we traveled to Indonesia and Malaysia to research the Palm Oil Crisis first hand and see for ourselves exactly what is happening in Borneo and Sumatra. Our trip, in partnership with Brookfield Zoo, included research on the following topics:

- Palm oil produced sustainably and unsustainably
- Effectiveness of the RSPO (Roundtable for Sustainable Palm Oil)
- Palm oil as a source of bio-fuel
- Pulp and paper industry
- Effects of the palm oil industry on indigenous people
- Other threats to orangutans and their rainforest habitat
- Creating Corridors
- Reforestation Projects
- Ecotourism
- Other sustainable livelihoods for indigenous people

We would like to present our findings, and offer a turn-key program that other zoological institutions can take away from the session and immediately implement at their facility.

Palm oil awareness is not as advanced in the United States as it is in other parts of the world such as Australia or the U.K. We feel that AZA accredited zoos have the potential to play a vital role in spreading awareness about this complicated issue in the U.S. If more facilities are given the tools to convey messages and actions about palm oil, we have the potential to create awareness and change on an impressive and significant scale.

Zoo Day Activities and Tours

Animal Feedings and Demonstrations (no participation sign up needed)

10:15 a.m.	African Penguin Feeding	Bird World
10:30 a.m.	Sea Lion Show	Northern Shores
11:30 a.m.	Animal Giants	Pachyderms
Noon	Red River Hog Feeding	Congo Basin
2 p.m.	Africa's Greatest Predators	Pahali Ya Simba: Predator Ridge
2 p.m.	Bird Bug Toss	Bird World

Behind the Scenes Tours (limited participant spots available, sign up required, only one tour per workshop guest)

10:30 a.m. – 11 a.m.	Venomous Snake handling demo	Limited 10 participants
11 a.m. – 11:30 a.m.	Gerenuk Behind the scenes	Limit 10 participants
11 a.m. – noon	Giraffe Roof Feeding	Limit 5 participants
	Asian Tropics Tower Tour	Limit 10 participants
1:30 p.m. – 2 p.m.	Rhino Meet and Greet	Limited 6 participants
1:30 p.m. – 2 p.m.	Penguin Encounter	Limited 8 participants
1:30 p.m. – 2 p.m.	Great Apes Roof Feeding	Limited 8 participants
2 p.m. – 2:30 p.m.	Elephant Meet and Greet	Limited 10 participants
2 p.m. – 3 p.m.	Great Apes Tour	Limited 20 participants
2:30 p.m. – 3 p.m.	Predator Ridge Tour	Limited 10 participants

Busses will run continuously between the hotel and the zoo until 9:30pm. Please make sure to come see the posters at 3:30 p.m. at the zoo. The presenters will be there for you to ask questions and make comments.

2010 Orangutan Workshop Attendees

Metro Area	Affiliation	Email Address
Ashby, Dillu		dilluashby@msn.com
Austutik, Wiwik	Samboja Lestari	
Bailey, Devin	Sedgwick County Zoo	atelford@scz.org
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Zedekar, Mike	Columbus Zoo & Aquarium	michael.zedekar@columbuszoo.org

Local Attractions

Stapleton Area (5-10 minutes)

- Museum of Nature & Science
- Denver Zoo
- IMAX Theater
- Gates Planetarium
- Park Hill Golf Course
- City Park/City Park Golf Course
- Wings Over the Rockies/Aviation Museum
- Bladium
- Tennis courts, softball field
- Wembley Park Kennel Racing
- Central Park (MLK Blvd. & Central Park Blvd)

Downtown Denver Area (5-10 minutes)

- Larimer Square/LoDo
- Tattered Cover Bookstore
- Denver Pavilions/16th Street Mall
- Elitch Gardens
- State Capitol/U.S. Mint
- Four Mile Historical Park
- Denver Art Museum
- Children's Museum
- Denver Performing Arts Center
- Denver Public Library
- Denver Botanical Gardens
- Colorado History Museum
- Black American West Museum
- Molly Brown House
- The Shops at Tabor Center
- Platte Valley Trolley Ride
- Coors Field
- •Invesco Field at Mile High Stadium
- Pepsi Center
- Museum of Contemporary Art

Metro Area (20-45 minutes)

- Park Meadows Mall
- Cherry Creek Mall
- Heritage Square
- Coors Brewery
- Bandimere Speedway
- Buffalo Bill Museum
- Mother Cabrini Shrine
- Colorado Railroad Museum
- Tiny Town
- Dinosaur Ridge
- Butterfly Pavilion & Insect Center
- Waterworld
- Fat City
- Hudson Gardens
- Leanin' Tree Museum of Western Art
- Museum of Outdoor Arts
- Denver Firefighter's Museum
- Golden Pioneer Museum
- Boat Ride on Cherry Creek
- Colorado Mills Outlet Mall

Front Range Area (1 hour plus)

- Central City Casinos
- Rocky Mountain National Park
- Mt. Evans & Echo Lake
- Pikes Peak
- Garden of the Gods
- U. S. Air Force Academy
- Pro Rodeo Hall of Fame
- Pike's Peak International Raceway
- Royal Gorge

Local Attractions

STAPLETON

Restaurants	Phone
1. Islamorada Fish Company	720-385-3600
2. Subway	720-974-7313
3. McDonald's	303-321-7499
4. Arby's	303-996-1897
5. IHOP	303-399-4646
6. La Mariposa Mexican Restaurant	303-321-4711
7. Panera Bread	303-398-5200
8. Country Buffet	303-335-1955
9. Famous Dave's BBQ	303-399-3100
10. Panda Express	303-331-8409
11. Sonic Drive-In	--
12. Inta Juice	303-393-0300
12. Papa John's Pizza	303-320-1717
12. Subway	720-974-1567
12. Wingz, Etc!	303-355-9464
13. Thomas Bros. Coffee & Chai	303-399-7334
14. Casey's Pub	720-974-7350
15. Udi's Bread Bistro	303-329-8888
16. Noodles & Company	303-780-0044
17. Cold Stone Creamery	303-320-6635
18. Starbucks	303-322-2477
18. Einstein Bros. Café	303-322-2585
19. The Coral Room	303-321-9463
20. Chipotle	303-316-0469
21. Anthony's Pizza	303-398-2800
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