



## **Elephant Management Protocol 2013**

### **Statement of Purpose**

This protocol is the main collection of policies, procedures and practices that govern the management of the elephant program at Woodland Park Zoo (WPZ). It contains the elements recommended for inclusion in all program protocols by the American Zoo and Aquarium Association (AZA) and Elephant Managers Association (EMA), and is intended to meet all requirements for the management of elephants in captivity set by the AZA and United States Department of Agriculture (USDA). This document is updated annually and replaces previous protocols.

Several related resources are attached as Appendices --

- Appendix 1: Elephant Training Resources
- Appendix 2: Elephant Care Professional Competencies
- Appendix 3: Approved Elephant Diets
- Appendix 4: Approved Elephant Enrichment
- Appendix 5: Elephant Training Guidelines
- Appendix 6: List of Elephant Training Cues
- Appendix 7: Trained Elephant Behaviors & Routines
- Appendix 8: Elephant Foot Care Protocol

### **Mission and Goals of Woodland Park Zoo Elephant Program**

WPZ strives to be a leader in the care, exhibition and propagation of elephants and in the education of our guests about elephants and their conservation.

We are dedicated to:

- providing the elephants at WPZ the highest level of care possible
- exhibiting elephants in a respectful manner that inspires our guests to become involved in elephant conservation
- participating in programs that work to create a self-sustaining captive elephant population in North America
- supporting *in situ* projects that promote the conservation of wild elephants and their habitats
- engaging our guests through inspiring and informative programs so that we may educate them about elephants and their conservation needs

Our goals are to:

- meet or exceed all AZA and USDA guidelines and standards for the care of elephants
- maintain exhibits that encourage natural behaviors from the elephants and inspire guests
- support elephant conservation
- support the AZA Elephant SSP
- cooperate with AZA Elephant SSP member institutions
- participate in research projects that support our mission
- support *in situ* conservation projects for elephants and their habitats
- develop and offer programs that educate zoo guests about elephant conservation needs and opportunities

### **Elephant Management Committee**

The Elephant Management Committee (EMC) is responsible for the development of the elephant program at WPZ. The EMC meets quarterly to discuss recent developments within the elephant program, set future goals and action plans, and monitor progress towards those goals.

#### **EMC Members and Elephant Program Roles:**

- President/CEO - general oversight responsibility of the elephant program
- Chief Operations Officer - general oversight responsibility of the elephant program; ensures that all departments within the zoo are working together effectively
- General Curator - general oversight responsibility of the elephant program; ensures that animal management and veterinary staff are working together effectively
- Veterinarian - responsible for veterinary issues, including the development of the nutritional and preventative medicine programs
- Curator - general oversight responsibility of the elephant program; conducts EMC meetings
- Collection Manager/Elephant Manager - responsible for day-to-day management and development of the elephant program
- Lead Keeper - responsible for day-to-day care of the elephants, leads weekly crew meetings and communicates with other departments as required
- Elephant Keepers - responsible for day-to-day care of the elephants
- Other staff may participate in EMC occasionally as required

### **Safety Rules for Elephant Staff**

- Never enter an enclosure until all elephants have been accounted for and secured.
- The physical and mental state of the elephants should be assessed before any physical contact is initiated.

- No keeper should come within trunk reach of an elephant without proper back-up.
- A back-up is a second keeper that maintains sight and sound contact with the first keeper at all times.
- The back-up keeper must have a radio and access to a defensive tool (e.g., rake or fire extinguisher) for emergencies.
- A defensive tool is any item that can be used by the back-up keeper as a physical distraction during an emergency.
- When within trunk reach, keepers should always take advantage of existing shielding i.e. proper positioning, barriers, fencing and shaker screens.
- When within trunk reach, keepers should give the elephants their undivided attention.

## **Access to Elephants, Barn and Exhibit**

### Elephant Keepers

Elephant keepers are qualified to work directly with the animals once they have completed Level 2 of the WPZ Elephant Personnel Competencies (see document) and as long as they are working in the elephant unit.

### Non-elephant Zoo Staff

Other zoo employees must have permission from a manager to enter elephant work areas. Once they have permission, they may be left unattended in an elephant work area only if no elephants have access to the immediate area and at least one keeper is in the barn or exhibit. All physical interactions with the elephants by non-elephant zoo staff must be at the protective wall (veterinary staff are an exception) and under the supervision of at least two keepers. At no time should any body part (even fingers) enter the enclosure with an elephant (veterinary personnel excepted).

### Guests

All guests entering an elephant work area or enclosure must be approved by the collection manager or curator, and must be accompanied at all times by at least one elephant keeper (two if interacting with the elephants). All physical interactions with the elephants by guests must be at the protective wall and under the supervision of at least two keepers. At no time should any body part enter the enclosure with an elephant.

## **Elephant Management - Basic Husbandry**

### Management System

The elephants are managed within a restricted contact system. The elephants should generally be free from close confinement during training sessions, but should be trained to be comfortable performing behaviors within the elephant restraint

device (ERD) and under tethered restraint in the unlikely event confinement is required for special procedures, veterinary treatments, births, introductions and emergencies.

### Temperature Guidelines

The elephants should be given outdoor access as much as possible when weather, health, and safety permits. Elephants can be given access outdoors when temperatures are above 40°F.

If temperatures are below 40°F, elephants can go outdoors if they are dry. When elephants are outside during cold weather, an elephant keeper should assess their condition and comfort level every hour, more often when young calves are present. Regardless of temperature, elephants can be shifted outside for short periods of time, to allow for barn cleaning and other activities.

Calves less than 500 pounds and ill or debilitated elephants should not be given outdoor access unless temperatures are above 40°F or as authorized by a zoo veterinarian.

### Overnight Housing

Healthy elephants weighing over 1000 pounds should be housed outside (with or without barn access) overnight under warm (50°F and above) and fair conditions. If the overnight low temperature will be 40-49°F, elephants should be housed outdoors with barn access. If the overnight low temperature will be below 40°F, outdoor access should not be provided.

### Facility Management

- Keepers should refer to the calendar each morning to see what facility projects are scheduled for that day.
- All outdoor enclosures should be cleaned of excrement and soiled hay at least once a day.
- A keeper should walk the perimeter of all outdoor enclosures daily, to assess the structural integrity of the containment barriers.
- During cool weather conditions, all indoor enclosures should be cleaned of excrement and soiled hay at least twice a day.
- Indoor enclosures should be disinfected every week (health and safety permitting).
- Indoor enclosures should be cleaned with a detergent cleanser daily.
- All feed buckets, feed tubs, water receptacles, and cutting boards should be cleaned daily and with a detergent cleanser weekly.
- Food preparation areas should be cleaned at least weekly.
- The pool should be drained and cleaned as often as is needed to maintain water quality.

- All keeper support areas should be kept clean and free of clutter.
- All keeper support areas should be thoroughly cleaned at least once every three months.
- Pest control stations should be checked at least weekly and serviced if needed by the pest management contractor.

### Diet

- Diets have been developed by a consulting zoo nutritionist and our veterinary staff and should be updated as needed.
- All diet change requests should be submitted to the Lead Keeper, Elephant Manager and Curator before being forwarded to the veterinarians and/or EMC for review.

### Regularly Scheduled Husbandry

- General Assessments
  - Each elephant should be given a complete body exam and condition assessment daily.
  - All abnormalities should be reported to the Lead Keeper, Elephant Manager or Curator and recorded on the daily report.
- Skin Care
  - Each elephant should be bathed once a day.
  - Normally, elephants are bathed with warm water and their feet scrubbed with dilute disinfectant soap. Occasionally, the skin will need to be scrubbed with disinfectant soap, especially fecal stains as they occur.
  - Elephants should be given dusting/wallowing/scratching/rubbing opportunities to assist in their own skin care weather permitting.
- Foot Care
  - All feet should be checked, cleaned and scrubbed with dilute disinfectant daily.
  - All feet should be photographed quarterly for records.
  - Footwork should be done as needed.
  - Refer to the Foot Care Protocol at N:\Animal Management\Private\Team\_Elephants.
- Veterinary Care
  - Elephants should be weighed at least quarterly, more often when needed.
  - Blood should be collected as needed for endocrinology.
  - Blood should be collected quarterly for Vitamin E monitoring.
  - Blood for CBC and chemistries should be collected annually.
  - Fecal samples should be collected semi-annually for parasite checks.
  - Physical examinations by the zoo's veterinarian should be given to each elephant annually.

- TB trunk wash tests should be given to each elephant annually.
  - Ultrasound evaluations of reproductive females over five years of age should be performed bi-annually.
  - Foot radiographs should be performed every three years to establish baseline data and as needed for any elephant with a recent history of problems as needed.
  - Each elephant should be photographed annually (front and profile) to document size and general condition.
- Restraint
    - Close confinement within the ERD (confined contact) should be a part of the training for each elephant and performed routinely.
    - Each elephant should be conditioned to accept routine restraint with tethers for short periods of time.

### Exercise

Elephants should be exercised daily by keeper-directed walks, strategic browse placement and diverse training sessions.

## **Elephant Management -- Behavioral Husbandry**

### Enrichment

- Keepers should provide appropriate enrichment opportunities throughout the day to stimulate natural activities and behaviors.
- Enrichment is provided in the form of strategically placed feeders; scents, spices and condiments distributed throughout the outdoor space; wobble trees (vertical structures, usually logs, that are secured at the base and result in a springing motion when an animal applies force to it) and other physical objects that can be manipulated by the elephants; interesting and varied training sessions and browse.
- In addition to the vegetation that elephants can browse on their own around the perimeter of the exhibit, cut browse should be offered daily, as available. Keepers should maintain an enrichment calendar for planning and documentation purposes.

### Operant Conditioning

- All keepers should understand and follow the elephant training methods for operant conditioning.
- The training of the elephants should be done using primarily positive reinforcement.
- Deviations from the approved list of training methods may be made under extraordinary circumstances including, but not limited to, veterinary procedures

and situations where there is a reasonable chance of injury or death to an elephant or human.

- All deviations from the approved list of training methods must be reported to the Elephant Manager as soon as possible.

### Training Methods

- Positive Reinforcement -- Approved positive reinforcers are any approved food item, any approved enrichment, any approved secondary reinforcement (clicker), water, verbal praise, and tactile praise (if safe to deliver).
- Negative Reinforcement -- Approved negative reinforcers are primarily verbal negative reinforcement (saying "No"). The elephant guide may be used only in the most extreme situations where there is a high risk to staff or guests, e.g., during emergency veterinary procedures or a catastrophic event such as an earthquake.
- Positive Punishment -- Approved positive punishers include the use of hotwire or barrier chain for secondary containment purposes or to protect staff, facilities or vegetation.
- Negative Punishment -- Approved negative punisher is the withdrawal of attention (time-out).
- Each elephant should have a primary trainer and a secondary trainer who are responsible for training new behaviors and transferring those behaviors to the other keepers.
- Training assignments will be made by the Elephant Manager. Behaviors may be assigned to secondary trainers for special circumstances including, but not limited to, extraordinary projects or situations where behavioral progress has stalled.
- A written training plan should be submitted to the Elephant Manager for review and approval before any new behavior is trained. Copies of these plans are to be filed in the Training and Enrichment Database on the N Drive
- Keepers should document training sessions, as needed, in ZIMS, under Notes, including information on techniques used, progress towards behavioral goals, regression, etc. Milestones in training, significant events, aggression during training sessions and completed behaviors should be noted in the ZIMS under the Notes heading.
- Each keeper should be periodically assessed during training sessions by the Elephant Manager to help maintain consistency within the program. All keepers are responsible for assessing each other after training sessions and providing feedback in order to maintain consistency.

### Aggression Management

- Aggression is defined as any physical challenge by an elephant to its environment.
- Aggressive behavior can be directed at a person, another elephant, or an object.

- Although aggression is a natural part of an elephant's behavioral repertoire, the goal of our behavioral husbandry program is to employ strategies that lessen the frequency and severity of aggressive interactions among the elephants themselves and between the elephants and keepers.
- All aggressive behavior should be noted in ZIMS under the Notes heading and discussed at crew and EMC meetings.
- It is important to discuss each aggressive incident so elephant personnel can help determine the reasons behind the behavior, identify the precursors to the behavior, and ensure that the elephant is not being inadvertently reinforced for the behavior.
- Any aggressive incidents should be formally documented with an AZA incident report and these incidents include the following types:
  - Any incident which results in the injury of a person or elephant.
  - Any incident which results in damage to the facility.
  - Any incident in which contact, regardless of intensity, is initiated by an elephant toward a person.
  - Any incident in which contact would have been made if the person had not repositioned him/herself.
  - Any incident in which high intensity contact is directed at a person immediately on the other side of a barrier (e.g., a forceful head butt on the shaker screen when the keeper is right next to the shaker screen).
- If an elephant is being aggressive to another elephant:
  - distract the aggressing elephant from the target animal using physical and/or psychological methods without taking unnecessary risks.
  - call veterinary staff and inform them to stand by for further instructions.
  - separate the elephants into different enclosures.
  - perform a thorough physical examination of all elephants, regardless of whether they were involved directly in the altercation, and call veterinary staff with preliminary diagnoses.
  - the elephants are to be kept in their overnight social groupings until the keepers develop a new plan for managing the herd.

### Evaluations

- Each elephant should have an informal, quarterly behavioral repertoire assessment for each keeper to evaluate his or her progress in the behavioral husbandry program.
- The Elephant Manager is responsible for performing these quarterly evaluations.
- Each elephant should have annual behavioral profile updates by the Lead Keeper and Elephant Manager.



## **Staff Management**

### Expectations

- Keepers are expected to actively contribute to the development and improvement of the elephant program.
- Keepers are expected to understand and follow unit policies and procedures.
- Keepers are expected to point out unsafe situations immediately and report the circumstances to the Lead Keeper and Elephant Manager.

### Meetings

- Morning briefings - held as needed to discuss behavioral/medical concerns and the day plan.
- Training meetings - held as needed to discuss training of elephants.
- Crew meetings - held weekly to discuss work orders and program issues.
- EMC meetings – to discuss the elephant program as a whole, are held quarterly.

### Records and Communication

- Daily report - documents basic information about the program in ZIMS.
- Enrichment calendar - lists daily enrichments planned for each day.
- Behavioral profile - regularly updated "personality snapshot" for each elephant.
- Diet sheets - details about daily base diet and supplements for each elephant (posted on kitchen bulletin board).
- Dry Erase Board - tool room, lists the following information:
  - Day plan - lists husbandry procedures, training priorities, maintenance projects, meetings, etc., planned for the day.
  - Veterinary/health-related treatments.
  - Facility maintenance task list.

### Protocol Compliance

- Breaches of the Elephant Management Protocol may result in disciplinary action.
- Disciplinary action will be progressive and may result in removal from program.

## **Public Programs**

### Keeper Talks

- Keepers should deliver a consistent, unified message to the public during keeper talks. These talks should include elephant facts, program goals, and conservation information.
- Keepers may ask the elephants to demonstrate non-contact behaviors when speaking with the public.

- Two elephant keepers must be present to perform any contact behaviors during demonstrations or tours for the public.

### Public Elephant Feeding Experience

This program, initiated in 2011, provides authentic, up close opportunities for zoo guests while remaining in compliance with AZA and USDA policies for the safety and wellbeing of the animals.

- Guests will only feed elephants using a 3 foot browse holder.
- At no time will the guest touch the browse prior to feeding.
- All previously mentioned safety protocols about keeper's proximity to the animals apply including requiring two qualified elephant keepers when in trunks reach.
- Only qualified elephant keepers will conduct the feed and will monitor the elephants' behavior.

### **Emergency Procedures**

In case of an emergency, WPZ reserves the right to use any and all means at its disposal to save human and/or animal life as dictated by the circumstances. Emergency equipment is located in the elephant barn, tool room and kitchen of the elephant barn. Keepers should know and understand all current zoo-wide emergency procedures as described in the WPZ Emergency Information Quick Reference Guide, and report emergencies immediately by radio.

#### Zoo Emergency Codes and Responses

- **CODE RED – IMMINENT HAZARD** (dangerous animal escape; explosion; armed individual; hazardous material or biological spill)
  - If there is a code red in another part of the zoo, keepers should secure elephants in the barn until the emergency is over.
  - If there is a code red elephant escape:
    1. stay as far away from the elephant as possible, while keeping it in sight.
    2. radio Security to notify them of the escape and request medical assistance if needed.
    3. keep all guests and non-elephant staff away from the elephant.
    4. bring the other elephants into the barn and close them behind the gate between the ERD and Herd room, leaving the outside barn doors open.
    5. determine the closest possible exhibit entrance for the elephant and station an elephant keeper as close to that point as is safely possible.
    6. elephant keepers should then call the elephant into the exhibit if it is safe to do so.
    7. if the elephant comes into the exhibit, it should be shifted in and secured.
    8. if the elephant refuses to enter the exhibit, elephant keepers, in consultation with the ERT Leader, will determine if it is safe to attempt to lead the elephant into the exhibit and/or restrain it using unrestricted contact techniques.

- CODE ORANGE – HIGH HAZARD (gas leak; fire; earthquake or environmental emergency)
  - If a natural disaster strikes, elephants should be brought in the barn if it is safe to do so.
  - Move elephants to appropriate locations, either inside the barn or out in the yards depending on the nature of the Code Orange emergency.
  - If there is a fire or other hazard in the elephant barn:
    1. ask Guest Services to call 911
    2. if the fire is small, keepers may use the appropriate fire extinguisher if it is safe to do so.
    3. clear staff and guests away from the barn.
    4. turn off the main breakers to the barn if it is safe to do so.
    5. if the elephants are threatened by smoke and flames, shift them to a safer area without taking unnecessary risks.
- CODE BLUE – MEDICAL CALL
  - Assist with emergency only if directed by ERT Leader or Command Center.
  - If an elephant injures a person:
    1. call "emergency at <location>, emergency at <location>" on the radio.
    2. distract the elephant from the victim using physical and/or psychological methods without taking unnecessary risks.
    3. attempt to shift the elephants into a different enclosure.
    4. if the person is conscious and able to move, direct them to face the elephants and crawl or back out of the enclosure.
    5. once they are out, make sure they are at least 10 feet away from the barriers.
- CODE YELLOW – LOW HAZARD (non-dangerous animal escape; person inside an exhibit)
  - Secure elephants in the barn until the emergency is over.
  - If a person has entered an elephant enclosure:
    1. attempt to shift the elephants into a different enclosure.
    2. if the person is conscious and able to move, direct them to face the elephants and crawl or back out of the enclosure.
    3. once they are out, make sure they are at least 10 feet away from the barriers.
    4. if the elephants refuse to shift voluntarily and are approaching or attacking the person, distract the elephant and/or encourage it to shift using physical and/or psychological methods without taking unnecessary risks.

### Emergency Review

- All emergencies are to be reported to curatorial staff as soon as possible.
- All elephant related emergencies will be reviewed as soon as possible by the EMC.

## **APPENDIX 1:**

### **ELEPHANT TRAINING RESOURCES**

#### **First Set - Introduction**

- Shamu's school for whales (from Behavior Sampler, by Gary Wilkes)
- Basic Operant Conditioning (from Animal Training, by Ken Ramirez)
- Training and Behavioral Terms Glossary for the International Marine Animal Trainers Association (from Animal Training, by Ken Ramirez)

#### **Second Set - Basic Husbandry Training**

- Husbandry Training (from Animal Training, by Ken Ramirez)
- What's in a name? (from Behavior Sampler, by Gary Wilkes)
- What you teach is what you get (from Behavior Sampler, by Gary Wilkes)
- The Ten Laws of Shaping (from Don't Shoot the Dog, by Karen Pryor)

#### **Third Set - Protected Contact Elephant Management**

- Protected-Contact Elephant Management (by Tim Desmond and Gail Laule, from 1991 AAZPA Conference Proceedings)
- "C" is for Cindy: A Case History (by Gary Miller, Craig Wilcox, Sally Latores, and Bruce Upchurch, from 1993 AZA Conference Proceedings)
- Answers to questions about protected contact elephant management (by Gary Priest, from January 1994 AAZK Animal Keeper's Forum)

#### **Fourth Set - Operant Conditioning**

- The Basics (from Clicker Training for Obedience, by Morgan Spector)

#### **Fifth Set - Aggression & Problem Solving**

- Aggression (from Animal Training, by Ken Ramirez)
- Problem Solving (from Clicker Training for Obedience, by Morgan Spector)

#### **Sixth Set - Advanced Operant Conditioning**

- Advanced Techniques (from Animal Training, by Ken Ramirez)
- When to say "NO!" (from Behavior Sampler, by Gary Wilkes)
- Does the Carrot Need the Stick? (by John Dinely)

#### **Seventh Set - Elephant Biology**

- Mammalian Species No. 182 – *Elephas maximus* (The American Society of Mammalogists)
- Mammalian Species No. 92 – *Loxodonta africana* (The American Society of Mammalogists)
- Anatomy & Physiology (from The Illustrated Encyclopedia of Elephants, edited by S. K. Eltringham)

- Ecology (from The Illustrated Encyclopedia of Elephants, edited by S. K. Eltringham)
- Reproduction in Elephants (from AZA Principles of Elephant Management Course Materials)
- Elephants (from The Behavior Guide to African Mammals, by Richard Despard Estes)

#### **Eighth Set - Elephant Conservation**

- Woodland Park Zoo Conservation Projects

## **APPENDIX 2:**

### **ELEPHANT CARE PROFESSIONAL COMPETENCIES**

#### **WPZ ECP LEVEL 1**

Entry level for new staff:

- ☐ Intro to performance expectations and limitations.
- ☐ Intro to safety; become familiar with institutional emergency procedures and protocols.
- ☐ Intro to institutional Elephant Management Policy, manuals and protocols.
- ☐ Intro to AZA Standards of Elephant Management and Care.
- ☐ Intro to AZA Elephant Behavior List and elephant profiles. Observe elephants, become familiar with elephant behavior and begin learning how to assess elephant behavior.
- ☐ Intro to operant conditioning
- ☐ Assist with facility cleaning and maintenance.
- ☐ Intro to facilities, diets, daily routine, etc.
- ☐ Record keeping.
- ☐ Keeper chats and visitor interactions.
- ☐ Complete all required institutional training courses (Orientation, etc.).
- ☐ Should not interact with the elephants unless accompanied by a senior elephant care professional.
- ☐ Should not shift elephants or operate doors/gates (some institutions may not issue keys to operate doors/gates until next level).
- ☐ Must meet or exceed expectations for safety, must show an ability to adhere to institutional protocols and must maintain an outstanding safety record.

Will be moved to ECP Level 2 when he/she has satisfactorily met the requirements of a ECP Level 1, has passed the Level 1 competency and safety proficiency evaluations and has been given final approval by the Elephant Manager and Curator.

#### **WPZ ECP LEVEL 2**

All Level 1 competencies, plus:

- ☐ Continuation of safety training, especially related to expanded duties.
- ☐ Expanded responsibilities in facility operations, cleaning, daily routine, diets, record keeping, visitor interactions, etc.
- ☐ Intro to operant conditioning, training theory, elephant behavior and terminology.
- ☐ Begin role as back up to primary trainer.
- ☐ Begin learning and understanding training plans.

## **APPENDIX 2:**

- ☐ Under supervision of the Elephant Manager and in line with his/her experience level, start basic elephant care with some elephants – shifting, targeting, feeding, bathing, etc.
- ☐ May begin assisting with elephant shifts.
- ☐ With guidance from Elephant Manager and senior ECPs, begin assessing behavior using the AZA Elephant Behavior List.
- ☐ Must successfully complete *Principles of Elephant Management I*.
- ☐ ECP must meet or exceed expectations for safety, especially related to expanded duties, must continue to show an ability to adhere to institutional protocols and must maintain an outstanding safety record.

Will be moved to ECP Level 3 when he/she has satisfactorily met the requirements of a ECP Level 2, has passed the Level 2 competency and safety proficiency evaluations and has been given final approval by the Elephant Manager and Curator.

### **WPZ ECP LEVEL 3**

All Level 1 & 2 competencies, plus:

- ☐ Continuation of safety training, especially related to expanded duties.
- ☐ Continue training elephants under the supervision of the Elephant Manager or a senior ECP in line with his/her experience level.
- ☐ Observe elephant health and husbandry needs.
- ☐ Begin introduction of other behaviors.
- ☐ Begin to manage elephant social groupings and social structure.
- ☐ ECP must be able work the elephants calmly and comfortably.
- ☐ ECP must demonstrate the ability to move all elephants safely and according to established protocols.
- ☐ ECP must exhibit good teamwork when with other coworkers in the area.
- ☐ ECP must be able to consistently and accurately assess elephant behavior using the AZA Elephant Behavior List.
- ☐ ECP must meet or exceed expectations for safety, especially related to expanded duties, must continue to show an ability to adhere to institutional protocols and must maintain an outstanding safety record.

Will be moved to ECP Level 4 when he/she has satisfactorily met the requirements of a ECP Level 3, has passed the Level 3 competency and safety proficiency evaluations and has been given final approval by the Elephant Manager and Curator.

### **WPZ ECP LEVEL 4**

All Level 1- 3 competencies, plus:

- ☐ Continuation of safety training, especially related to expanded duties.

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- ☐ Continue training elephants under the supervision of the Elephant Manager or a senior ECP in line with his/her experience level.
- ☐ Intro to elephant husbandry needs.
- ☐ Should have complete understanding of herd management.
- ☐ ECP has to show ability to work through problems and think independently.
- ☐ ECP must demonstrate proficiency with all aspects of elephant care, including foot care, skin care, etc.
- ☐ ECP must be able to consistently and accurately assess elephant behavior using the AZA Elephant Behavior List.
- ☐ Under the supervision of the Elephant Manager or a senior ECP, train a new behavior.
- ☐ Perform advanced husbandry behaviors.
- ☐ Must successfully complete *Principles of Elephant Management II*.
- ☐ ECP must meet or exceed expectations for safety, especially related to expanded duties, must continue to show an ability to adhere to institutional protocols and must maintain an outstanding safety record.

Will be moved to ECP Level 5 – Senior ECP when he/she has satisfactorily met the requirements of a ECP Level 4, has passed the Level 4 competency and safety proficiency evaluations and has been given final approval by the Elephant Manager and Curator.

### WZP EPC LEVEL 5 – Senior ECP

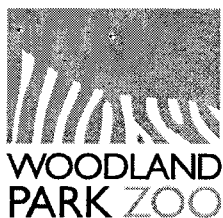
All Level 1-4 competencies, plus:

- ☐ Continuation of safety training, especially related to expanded duties.
- ☐ Senior ECP helps coordinate and implement training of the elephants and staff in the absence of the Elephant Manager.
- ☐ Senior ECP will help train and mentor new ECPs.
- ☐ Safety proficiency evaluations and general performance reviews of senior ECP should continue semi-annually, as required. Written competency tests should be conducted every two years or more often to measure and assure retention of knowledge and skills.
- ☐ Senior ECP must be a role model for other elephant care professionals in program.
- ☐ Senior ECP must continue to meet or exceed expectations for safety, especially related to expanded duties, must continue to show an ability to adhere to institutional protocols and must maintain an outstanding safety record.



## **APPENDIX 2:**

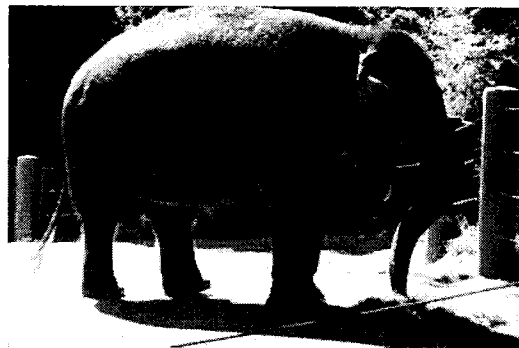
*May 2013*



### APPENDIX 3: APPROVED ELEPHANT DIETS

## Asian Elephant

*Elephas maximus*



Number of animals: 2 Location: Elephant Barn

Body Weight: 8000 lbs

Calories provided by diet, per animal, 74,545 kcal/da

Food item	0.1 Chai	0.1 Bamboo	Days
1. Apples (slices) 1/2 " - 3/4"	1500g	1500g	SMTWTFS
2. Yams (slices) 1/2 - 3/4"	1000g	1000g	SMTWTFS
3. Carrots 3" - 4"	1000g	1000g	SMTWTFS
4. Cantaloupe or Melon (chunks) 1-2"	250g	250g	SMTWTFS
Group 1 - 4			
5. Banana (whole w/peel)	500g	500g	SMTWTFS
6. Organic Elephant Supplement in unit	3 Kg	3 Kg	SMTWTFS
7. Grass Hay in unit	37 kg	37 kg	SMTWTFS

#### Prep Notes:

- 1 bucket each for Chai and Bamboo
- Cut apples/yams in half lengthwise, then cut into slices 1/2"-3/4" thick (semi-circles)
- Rinds can be left on melons, no seeds
- Cut carrots at angle to prevent rolling

#### Keeper Notes:

Maximum of 4545 g of produce, per animal, per day, for training.

Hay fed ad libitum, as are browses.

Supplement diet with Rovimix (vitamin E) daily.

1.5 tsp. plain, granular salt, per animal, per day.

# African Elephant

*Loxodonta africana*



Number of animals: 1      Location: Elephant Barn

Body Weight: 8000 lbs

Calories provided by diet: 74,545 kcal/da

Food item	Qty per animal	Days
8. Apples (slices) 1/2" – 3/4"	1500g	SMTWTFS
9. Yams (slices) 1/2" – 3/4"	1000g	SMTWTFS
10. Carrots 3" - 4"	1000g	SMTWTFS
11. Cantaloupe or Melon (chunks) 1"	250g	SMTWTFS
Group 1-4		
12. Bananas (whole w/peel)	500g	SMTWTFS
13. Organic Elephant Supplement in unit	3 kg	SMTWTFS
14. Grass Hay – in unit	46 kg	SMTWTFS

## Prep Notes:

- 1 bucket for Watoto
- Cut apples/yams in half lengthwise, then cut into slices 1/2"-3/4" thick (semi-circles)
- Rinds can be left on melons, no seeds
- Cut carrots at angle to prevent rolling

## Keeper Notes:

Maximum of 4545 g of produce, per day, for training.

Hay fed ad libitum, as are browses.

Supplement diet with Rovimix (vitamin E) daily.

1.5 tsp. plain, granular salt, per day.

## APPENDIX 4:

### APPROVED ENRICHMENT FOR ELEPHANTS (updated 2013)

#### Olfactory

- spices
- coffee grounds
- extracts

#### Auditory

- radio station
- environmental sounds
- animal sounds
- sound effects
- wind chimes

#### Tactile

- substrate piles
- poolroom shower
- free hose shower
- ice cubes

#### Visual

- novel objects (out of reach)
- soap bubbles
- holiday lights

#### Dietary

browse (all species within listed genera are acceptable except Acer)

Acer	maple (except Acer rubrum, red maple)
Alnus	alder
Bamboo	
Betula	birch
Cornus	dogwood
Corylus	hazelnut
Cotoneaster	
Crataegus	hawthorn (watch for thorns)
Escallonia	
Lonicera	honeysuckle
Populus	poplar
Rubus	various wild berries (watch for thorns)
Salix	willow
Spiraea	
Ulmus	elm
Viburnum	

Vitis                      grape  
unusual produce (delivered by Commissary)  
unusual food presentation

Interactive

boomer ball  
logs (free or hanging)  
hanging tire (off-view only)  
painting  
large, knotted rope  
noisemakers

Social

varied social groupings  
informal training ("play") sessions  
puzzle sessions (problem solving tests)

## APPENDIX 5:

### ELEPHANT RESTRICTED CONTACT TRAINING GUIDELINES (updated 2013)

The following guidelines are not intended to be a comprehensive "how to" guide for restricted contact. They are simply a collection of reminders, tips, and hints to help maintain consistency between trainers.

**Restricted Contact** -- Handling of an elephant when the keeper and the elephant do not share the same space. Typically in this system the keeper has contact with the elephant through a protective barrier of some type while the animal is not spatially confined and is free to leave the work area at will. This includes confined contact, where the handling of an elephant [is] through a protective barrier where the elephant is spatially confined, as in an Elephant Restraint Device (ERD).

from AZA Standards for Elephant Management and Care

- Know the three elements of restricted contact (protective barriers, elephant positioning, and handler positioning) and understand how they are used together to create a restricted environment.
- If you see that a keeper is in an unsafe position, notify them immediately.
- Only one primary trainer will train each new behavior. Each elephant will have two trainers, the primary and the secondary trainer, responsible for teaching new behaviors. Once a new behavior is established by the primary trainer, it is handed off to the second trainer, and then transferred to the rest of the crew.
- Do not deliver a cue to an elephant unless you are able to reinforce the desired behavior or punish undesired behaviors.
- Be aware of what behaviors the elephant is performing before starting any training session. Take care to not inadvertently reinforce undesirable behaviors with training sessions.
- The keeper responsible for giving cues and delivering reinforcement and punishment is called the trainer.
- The keeper responsible for performing contact husbandry procedures (i.e. -- scrub baths, blood draws, or foot care) is called the scrubber or tech.
- Ideally, trainers and scrubbers should act as a back-up for each other during contact husbandry procedures. They should also have a radio and quick, easy access to a defensive tool.
- During a training session, only the trainer speaks to the elephant.
- The trainer should not be disturbed while working the elephant. The back-up should politely explain to staff and/or visitors that the trainer must concentrate

on the task at hand and that withdrawing attention from the elephant could cause the animal to become confused or frustrated..

- Do not be a "backseat driver" during training sessions. Unless there is a clear misunderstanding of the goal of the session, or the trainer is creating a dangerous situation, the direction of the training session is determined by the trainer. Any feedback should be held until after the session is over.
- Know your goals before you begin any training session.
- During a training session, do not reinforce for behaviors that have not yet occurred.
- Do not throw food to get an elephant's attention.
- Do not overuse an elephant's name. The name should be a verbal attention cue. It does not have to precede every cue.
- A cue should be delivered no more than twice in a row for each desired response of a trained behavior.
- Undesired behaviors are dealt with by delivering a time out, or cueing the animal for an incompatible behavior.
- Remember to occasionally reinforce recalls and calm behavior after timeouts. Do not use recalls just for ending poorly performed behaviors.
- Do not overuse the time out. Overuse may indicate overly strict or ambitious criteria.
- Time-outs are to be used only for non-compliance. Non-compliance may include failure to meet established criteria for certain behaviors. Time-out usage will be reviewed at weekly crew meetings.
- Aggressive behaviors should be dealt with by delivering a LRS if it is safe to do so. If a driver has to reposition his/herself due to an aggressive behavior, deliver the LRS after repositioning.
- All aggressive incidents are to be discussed by the crew as soon as possible. All aggressive incidents will be reviewed again during the weekly crew meetings.
- Know the precursors to aggression. Do not punish precursors to aggression.
- Do not get into the habit of emptying the training bucket every session. Unused food from one session may be used in later sessions or fed at the end of the day.
- 100% of the daily diet should be fed (health and safety permitting) by the end of the day.
- Do not use the target as you would a guide.
- Understand extinction and how extinction bursts can be used and misused.

## **APPENDIX 6:**

### **LIST OF ELEPHANT TRAINING CUES (updated 2013)**

COME HERE	come to keeper
MOVE UP	move forward
BACK	move backward
GET OVER	move sideways, away from the keeper
LEAN IN	move sideways, towards keeper
FRONT	face the keeper
TURN	rotate clockwise
SPIN	rotate counter-clockwise
TRUNK	raise trunk
TRUNK DOWN	drop and relax trunk
OPEN	open mouth
EAR	present ear
FOOT	lift foot
1 (FOOT)	lift left front foot
2 (FOOT)	lift right front foot
3 (FOOT)	lift left rear foot
4 (FOOT)	lift right rear foot
PAD	lift front foot with pad facing toward rear legs
SALUTE	lift left front foot and trunk
BRACE	lift both feet on same side as keeper
BOW	lean backward, rest on left wrist, and raise trunk
KNEEL	rest on both wrists
HEAD DOWN	lower head
STRETCH	rest in ventral recumbence
DOWN	rest in lateral recumbence
HALF	rest on hip
ALL RIGHT	release from behavior



STEADY

hold behavior

NO

discontinue current behavior

LEAVE IT

do not touch object

TAKE

take object from keeper or pick up object from ground

PUSH

push object with head

## APPENDIX 7:

### TRAINED ELEPHANT BEHAVIORS & ROUTINES

Behavior	Not Trained	In Training	Complete & Reliable
Bathe skin			W, B, C
Treat skin			W, B, C
Trim all feet			W, B, C
Eye exam			W, B, C
Ear exam			W, B, C
Mouth exam			W, B, C
Tooth exam			W, B, C
Tusk/tush exam			W (N/A B, C)
Blood collection			W, B, C (weekly)
Urine collection	W, B, C		
Urogenital exam			W, B, C
Rectal palpation			W, B, C
Enema			W, B, C
Transrectal ultrasound			W, B, C
Accepts injections			W, B, C
Accepts oral medications		C	W, B
Enters chute (allows gate close)			W, B, C
Allows chute walls to move		W	B, C
Allows husbandry procedures to be performed by staff			W, B, C
Allows veterinary procedures to be performed by vet			W, B, C
Trunk wash for TB testing			W, B, C
Foot X-ray			W, B, C
Separation			W, B, C
Leg restraint	W		B, C

W=Watoto/0.1 African/ 44 years/DOB: ~1/29/1969

B=Bamboo/0.1 Asian/46 years/DOB: ~1/1/1968

C=Chai/0.1 Asian/34 years/DOB: ~1/28/1979

Form adapted from "Behavioral Components" in AZA Principles of Elephant Management Course Materials, 2003

Updated August 2013

## **APPENDIX 8:**

### **ELEPHANT FOOT CARE PROTOCOL (updated 2013)**

The elephant staff at the Woodland Park Zoo will routinely administer to the foot care needs of the elephants by performing the following routines and procedures.

1. Daily baths include rinsing the feet, removing any debris and feces. A liberal application of a dilute disinfectant is applied to nails and footpads with particular attention being paid to any cracks or divots.
2. Foot care in the form of preventative pedicures is performed as needed.
3. Normal, preventative pedicures usually involve shaping and filing of individual toenails and trimming of excess pad and cuticle tissue.
4. All pedicures are documented in ZIMS under the animal's specimen notes section, Animal Care, Foot Management.
5. Each elephant keeper is assigned primary responsibility for the care of specific elephant's feet in order to ensure continuity of care as well as accountability. Occasionally, keepers rotate foot care assignments in order to increase experience and maintain tractability among the elephants.
6. All elephant keepers are expected to monitor the general health of all elephants and advise one another as to any foot care needs that arise.
7. Photographs of all elephant's feet (pads and nails) are taken quarterly. These photos are cataloged on the N drive, in the Team Elephant folder, in the Foot photo file.
8. Baseline radiographs are taken of all elephant's feet every three years. If a foot problem arises that requires medical consultation or treatment, additional radiographs may be taken at the discretion of the zoo's veterinarian.

#### **Current Foot care Assignments:**

Chai: Russ Roach

Bamboo: Pat Maluy

Watoto: Pattie Beaven (Steve Cremer)