

Dallas Zoo

Enrichment protocols

Elephant Management meeting
minutes

Plans for moving Vasha to
Disney for breeding

- chaining
- desensitizing

26 pages

Revised Large Mammal Barn Routine

Response to USDA Mandated Two Person Guideline

Note 1:

The icon "T" stands for "Team" and indicates a task that must be performed by at least two keepers. Both must be experienced and qualified by the supervisor to work with the species in question.

The icon "I" stands for "individual" and indicates a task that, under normal circumstances, may be performed by a single keeper.

Note2:

Volunteers may not work alone in the LM barn regardless of the location of animals, or the situation.

Note3:

All interactions with elephants will fall under the two-person category, in accordance with the elephant management manual.

First thing in the Morning

- ◆ I: Before entering the barn, make a general visual check on all animals and the facility through the windows at the breezeway. If alone, enter the barn through the door next to the old hippo holding.
- ◆ Obtain radios.
- ◆ Obtain pepper spray protective device.
- ◆ T: Prepare oral medication for Jenny elephant and administer.
- ◆ T: Weather permitting, shift Jenny out of stalls and lock her out on exhibit. Provide hay.
- ◆ I: Before leaving the "elephant" area, climb up to the loft and prepare and present male giraffe's diet.
- ◆ I: Prepare and present the female giraffes' diet.

Attend the morning meeting.

Cleaning Routine

- ◆ T: If Jenny has been previously locked out on exhibit, dry-clean both barn stalls.

Elephant Yard Cleaning:

Options:

T: Shift and lock Jenny into a stall. Clean both sides of exhibit simultaneously.

T: Shift Jenny into one side of the exhibit yard. Clean the empty side.

Cleaning Elephant Stalls

- ◆ T: Lock Jenny on exhibit.
- ◆ T: Clean stalls. If Jenny is locked out, one keeper may do cleaning activities while another performs other duties within the elephant work area and in close proximity. If Jenny must remain in a stall, at least two keepers must clean the empty stall.

Remaining Activities

- ◆ T: Training sessions
- ◆ T: Projects
- ◆ T: Closing Routine

Back-up Elephant Keeper Orientation

January 2001

- Keeper has thoroughly read the elephant manual.
- Introduction to Safety Protocol/Review.
- Review catalogue of basic behavior commands/queues.
- Demonstrate standard commands.
- Review behavior profiles for both elephants.
- Discuss queues, or behavioral occurrences, that used to determine each elephant's psychological state.
- Discuss queues, or observations, used to assess each elephant's physical condition.
- Explanation and demonstration of mechanical operation of hydraulic doors.
- Explanation and demonstration of safety procedures for operation of hydraulic doors.
- Shown location of emergency equipment.
- Review "trunk reach" areas.
- Seasonal cleaning routine.
- Review emergency procedures (Chapter 3: Animal escapes) for the LM Barn duties.
- Explanation and demonstration of seasonal cleaning routine.
- Review "two-person" guidelines for the LM Barn.
- Review volunteer guidelines for the LM Barn.

Employee/Date

Supervisor/Date

INDICATORS OF BEHAVIOR

JENNY- The following may be signs of trouble:

1. Cocked tail.
2. Wide eyed.
3. Snatches food from your hand while being fed.
4. Kicking right rear leg.
5. Raised head and extended ears. This can also be a greeting. You must look at the whole picture to determine if it is actually a threat.
6. Crab walk
7. Vocalizations:

- A. Trumpet- Short blast, state of excitement. It could be associated with fear, anger, or being happy.
- B. Soft rumble- Pleasure (possibly a greeting, being happy, or on command).
- C. Long monotone subdued trumpet- agitation, usually associated with a tantrum.
- D. Loud rumble- Excitement and pleasure. It can be associated with a greeting or a trumpet.

SOMETIMES FRUSTRATION TO A CERTAIN SITUATION WILL CAUSE HER TO ACT OUT.

VASHA- When food is presented sometimes she will charge Jenny, striking at her with her trunk. She is extremely quick and unpredictable. Vasha has also been known to bite Jenny.

Vocalizations:

The vocalizations are the same as the above, however, there is one addition:

- E. Roar- It is caused by fear and is always associated with a attack or aggression by Jenny.

COMMAND CATALOG FOR ELEPHANT BACK-UP PERSONNEL

1. No- To be used to stop any undesirable behavior shown by the elephants.
2. Trunk- Elephant raises trunk, with tip tightly curled or laying over top of head.
3. Back- Elephant should move in a straight line backwards. Command is repeated until elephant is as far back as you want her.
4. AllRight- This is used as a "release" for ending a behavior.
5. Steady- The elephant should freeze, cease all movement, and hold position she is in when command is given.
6. Come Here- Elephant comes to you in a deliberate if not quick fashion.
7. Move Up- Elephant moves forward.

OUTLINE FOR TRAINING A NEW ELEPHANT KEEPER

Trainee Name: _____

Date: _____

PHASE I: FAMILIARIZATION

- New keeper assigned to Sr. Keeper as trainer and mentor. Trainer: _____
- Must read and review Elephant Keeper Manual.
 - Must learn safety rules from the elephant keeper manual.
- View selected videos of elephant behavior, husbandry & training.
- Begin "fun" feeding with other elephant keepers present. Non-training.
- Do cleaning routine with other elephant keepers present.
- Provide enrichment.
- Watch training and husbandry sessions, standing in a location that is non-invasive to the elephant. Must remain in view of the elephant. For example, stand against the back wall of the stall when elephant is being trained in the other stall.
 - Other keepers should use fundamental training techniques that would be eventually used by the new trainer, so as not to add confusion or inconsistency to what the new trainer sees and perceives as the correct method.
 - Bridging with whistles at all times.
 - Emphasize the use of a target or multiple targets.
 - Trainers explain aspects of the elephant's behavior, posture, etc. during training sessions.
- Learn guidelines for shifting.
- Study training terms from Elephant Keeper Manual.
- Read "Don't Shoot the Dog", by Karen Pryor, to learn the basics of operant conditioning.
- Study catalogue of trained behaviors.
- Test with scenario questions to ensure the new trainer has a good grasp of safety issues and procedures.
- Test on training terms and theory from our manual and the Pryor book.
- Supervisor check-off.

Trainee (initial): _____

Trainer (initial): _____

Supervisor (Initial): _____ Date: _____

PHASE II: INITIATION OF TRAINING

- Frequent "jackpot" sessions, where the new person provides food reinforcement without asking the animal to work for it. A bridge should still be used.
- Provide food reinforcement during training sessions. Simply feed whenever the main trainer bridges. Second trainer should be right there with the new trainer, pointing out behaviors and other important information.
- Start simple tactile sessions, with other trainers present.
 - Tactile areas: trunk, face, ears and shoulders.
 - Avoid touching flanks or rear.
 - Stand within sight of the elephant -- never behind.
 - Elephant should remain relaxed during session.
 - Trainee should display proper consideration for safety guidelines.

- Supervisor check-off.

Trainee (initial): _____

Trainer (initial): _____

Supervisor (Initial): _____ Date: _____

PHASE III: ESTABLISHMENT OF THE TRAINER

- Have elephant come to the new trainer when called. Start with a short distance. Work toward having elephant come across yard. Target not used at this point. If elephant regularly responds appropriately, it shows there is some sort of trust and the elephant recognizes that she will receive reinforcement for coming to the new person. This sets the stage for initial stage of training sessions. If the elephant does not respond appropriately, more time needs to be spent building trust. Backtrack.
- Start training sessions for behaviors that involve positioning only. No desensitization work. Always use target(s) and whistle.
 - Learn to use multiple targets.
- Check off on basic behaviors. Work toward getting "released" on more difficult behaviors.
- Tactile Desensitization sessions, touching flanks and rear.
- Positioning for footwork.
- Positioning for blood draw.
- Positioning and feeding for controlled baths.
- Hosing for Fun baths.
- Hosing for controlled baths.
- Supervisor check-off.
- Start checking off remaining behaviors in catalogue.
- Designation as elephant trainer and backup.

Trainee: _____

Trainer: _____

Supervisor: _____

Curator: _____

Date: _____

JENNY'S APPROVED ENRICHMENT LIST

BE SURE TO CHECK ENRICHMENT
NOTEBOOK FOR SPECIFIC DETAILS

SNAKE SKINS
PLASTIC DRUM
PVC PUZZEL FEEDER (DESIGN A)
METAL FEEDER BALL
BRUSH HEADS
BEER KEG
PAPER BAGS
CHRISTMAS TREE
SCRATCHING POST
RUBBER TUBS
WHOLE PLANTS
PAINT
JUNGLE BALL (20")
ANIMAL MANNEQUIN
BAMBOO PUZZEL FEEDER
COCONUT FEEDER
TRAFFIC CONES

POLAR N'ICE CUBE
PLEXIGLASS MIRROR
MANIPULATION TOY
SCENTED HAY
MILK CRATES
METAL RINGS
BOAT BUMPER
DRAINAGE CULVERT (PLASTIC)
SCENTED VINEGAR
RAISIN BOARD (LOGS)
PIGBALL
ICE RINGS
ADOBE BALLS
BAMBOO CURTAIN
BOBBIN
FEATHERS

Stretching

Training

- Behaviors such as down, stretch, extend trunk and upper body to reach and retrieve an object, standing on tub or rock to reach up, tub work in general or use a rock as you would a tub
- Gradually increase the amount she must stretch muscles to accomplish a higher criteria of the given behavior

Enrichment

- Offer browse very high so that she has to reach to get it
- Provide enrichment so that she has to reach forwards or down (if there is a place to do so)

These are just a few examples that can serve as a guideline to developing an exercise program that address various aspects of exercise. Clearly, enrichment is an important component of exercise, but be sure that the enrichment program is not limited to exercise. Your enrichment program and your exercise program are not mutually exclusive nor do they completely overlap and satisfy the goals of the other.

Enrichment should not only meet the physical needs of the animal, but must address the psychological aspects as well. A social animal being housed alone poses its own set of challenges regarding psychological well-being; this means that your enrichment program must be very dynamic to try to fill the void of social interaction with a con-specific. A few ideas that you may try to implement include:

- Puzzle feeders- challenging ones that you will need to design and have constructed, perhaps made from pipe with openings that she must manipulate food through to make it fall out an opening
- Training of new behaviors- the immediate ones to train, as we discussed, include ones that facilitate exercise
- Social interaction from keeper staff
- Social interaction with another species- the goat we talked about during the March visit- see March report
- Big mirror so that she can see herself- have you seen the article on self-recognition in elephants?

GIRAFFE

We worked primarily with Tano. Some additional desensitization has been done with him since the previous visit. You are able to touch his legs with a brush, but still lack a good location in which to take additional steps such as touching his hooves. The restraint chute will help you by giving you access to feet, legs, as well as other parts of the giraffe. However, there is still a fair amount of training that must be done before you will be able to do any actual trimming on the hooves, plus training him to enter and be closed in the chute may take time. So, again, I suggest that you find ways to further the desensitization training with Tano.

We talked about training him against the moving wall, as this positioning would provide better access to his feet (at least the left one at this time). If you position him in a lean-in or partial

LARGE MAMMALS

Jenny

We discussed various aspects of Jenny's care, focused around creating a comprehensive program that can address her exercise, physical, and psychological needs. A comprehensive program should address all of these needs by using a variety of techniques including training, enrichment, and an adjustment of operational procedures if necessary.

Beginning with exercise. . . I suggest that you consider different types of exercise and develop methods to meet each of these. I find it easier to bread the larger idea of exercise down into several categories, including, aerobic, strength or muscle building, and stretching of muscles. I suggest that you develop behaviors or activities that can meet each of these categories. Some examples follow:

Aerobic

Training

- A's to B's- to make this more interesting, attach a task such as fetching or carrying an object and placing it in a specific location, etc.
- Kicking a ball like in soccer for extended distances
- Reinforce running vs. walking (or at least fast walking)
- Walk or run for increased distances

Enrichment

- Activities that excite her to the point of playing with an object for extended periods of time
- For example, kicking a hanging tire, batting a ball, or kicking a ball on the ground

Operations

- Alter daily pathways so that she has to take the 'long way' into the stall or to get from one side of the exhibit to the other
- For example, use the gate close to the front of the exhibit when possible
- Scatter food to increase foraging and therefore walking

Strength

Training

- Lifting heavy objects
- Log pull and push
- Lifting objects in various positions, such as standing with a leg lifted
- Lifting with trunk, legs, and neck

Enrichment

- Offer heavy objects for her to play with, push, and move
- Structures that enable her to climb and use muscles not normally used on a flat land surface. For example, give a rock pile that she has to climb and forage
- Hide food under objects that must be moved in order to get food
- Digging through substrates with feet and trunk

African Elephant Approved Enrichment

Category	Item	Preparation	Presentation
Interactive	Brushed by keeper	N/A	Dependent on progress of protected contact.
	Water spray hoses/sprinkler		
	Object retrieval		
	Painting		
	Behavior modification-Training		
	Tours/social		
Devices	Large neoprene rubber "Pig ball"	N/A	
	Logs misc. sizes		
	Tires		
	Beer kegs		
	Ice rings or blocks		
	Scratching posts		
	Sand pit		
	Rearrange the furniture		
	Elephant rattle		

Note 1: Be attentive to public perception, remove items before they become unsightly.

African Elephant Approved Enrichment

Revised: 6/30/01

Category	Item	Preparation	Presentation
Sensory Stimulation	Radio (music)		
	Sounds of jungle		
	Sounds of rain forest	N/A	N/A
	Animal vocalizations		
	TV		
Olfactory	Cinnamon		
	Oregano		
	Rosemary		
	Basil		
	Garlic		
	Cloves		
	Vanilla	N/A	(1) Sprinkled in hay. (2) Sprinkled on logs or rocks.
	Allspice		
	Catnip		
Management/ Husbandry Food presentation	Scattered		
	In hay		
	Branches		
	Fence		
	On the ground		
	Suspended	N/A	N/A
	On the wall		
	In pool		
	Food dish		
	Rock pile		
	Inside devices		
	Buried in dirt piles		

African Elephant Approved Enrichment

Category	Item	Preparation	Presentation
Browse	Hackberry	Whole	8' branch, well leaved.
	Grape		4' vine, well leaved.
	Ash		6' branch, well leaved.
	Honeysuckle		6' branch, well leaved.
	Loquat		6' branch, well leaved.
	Mulberry		6' branch, well leaved.
	Banana Plant		Whole plant.
	Sycamore		6' branch, well leaved.
	Poplar		6' branch, well leaved.
	Magnolia		6' branch, well leaved.
	Sweet Gum		6' branch, well leaved.
	Huisache		6' branch, well leaved.
	Cottonwood		6' branch, well leaved.
	Willow		8' branch, well leaved.
	Giant Reed		6' stalk.
Vegetable	Acorn Squash	Whole	(1) Placed on fence. (2) Scattered in logs or rocks. (3) Scattered in hay.
	Beets		
	Broccoli		
	Beans		
	Onion		
	Cauliflower		
	Bell Pepper		
	Pumpkins		
	Celery		
	Corn		
	Tomatoes		
	Turnip		
	Squash		
	Radish		
	Bean Sprouts		
Curcumbers			
Zucchini			

African Elephant Approved Enrichment

Revised:6/30/01

Category	Item	Preparation	Presentation
Fruits	Papaya	Halved	Same as above
Grain	Oats, crimped	N/A	Same as above
	Sweet feed		Provide in various manners.
Seeds/nuts	Sunflower seeds	Whole	Same as above
Hay	Alfalfa		<i>Already allotted in diet</i> Placed on ground as substrate for enrichment items
	Coastal Bermuda	N/A	
	Sudan		
Juice	Various Fruit Juices	Frozen cubes	Hand fed or placed on hard flooring
Leafy Veg	Cabbage	Quartered	<i>Already allotted in diet</i> (1) Placed on fence (2) Scattered in logs or rocks (3) Scattered in hay
	Spinach	Separated	
	Kale	Separated	
	Lettuce (varieties)	Quartered	
Starch	Potatoes	Whole	Same as above
	Yams		
Browse	Acacia	Whole	6' limb, well leafed 10' stalk, well leafed. 6' stalk. 8' branch, well leafed. 6' branch, well leafed. 6' branch, well leafed.
	Bamboo		
	Sugar Cane		
	Hibiscus		
	Box Elder		
	Fig		

African Elephant Approved Enrichment

Revised, or 30/01

- (1) Only one food item may be presented per day, seven days per week.
- (2) Olfactory items may be presented coincidental with food enrichment, one per day
- (3) Monthly schedule will be administered by assigned keeper.
- (4) Schedule will be distributed to concerned departments, and posted in the commissary and L.M. barn.
- (5) Selection of prescribed methods of presentation is at keeper discretion; however, variety is paramount.

Category	Item	Preparation	Presentation
Dry Chow	Alfalfa cubes	N/A	Scattered in hay, logs or rocks
Frozen Foods	Berries	Broken up or thawed	Scattered in hay, logs or rocks
	Mixed vegg		
	Grapes		
	Spinach		
	Peas		
	Corn		
Fruits	Apples	Whole Quartered Whole Quartered Whole	(1) Tossed into pool (2) Placed on fence, wires or posts (3) Scattered in hay, logs or rocks
	Bananas		
	Peaches		
	Cantaloupe		
	Grapes		
	Honeydew		
	Pineapple		
	Plums		
	Kiwi		
	Nectarines		
	Oranges		
	Pears		
	Raisins		
	Watermelon		

c: Anita

ELEPHANT KEEPER MEETING MINUTES

Thursday, March 13, 2001

Attendees: Roman, Heidi, Moriah, Mike

Items in Bold font were the original agenda outline. Other text was actual discussion during the meeting.

JENNY'S MANAGEMENT

Acepromazine

Veterinary Issues

- What do we do if she starts self-mutilation during construction, even while on current dosage of "ace"? Consensus was that we should not increase her dosage in advance, as a pre-emptive measure – only if needed.
- She did very well during the first phase, but the stall door construction may be very disturbing to her.

How much of a reduction, for how long?

If we start getting "tripwire" behaviors, how soon can we respond by increasing her dose?

Other Issues?

- If we do see regression in behavior, during the dosage reduction, are there any supplemental medications to ease withdrawal effects? Would this mask behavior?

Husbandry

When do we start taking her off of it?

- Consensus was not until after construction is completed.
- We also should think about trimming tusks prior, in case she starts pegging her leg again.

How will we monitor and record her behavior?

- Train other keepers in area to recognize and report behaviors to elephant staff – extra sets of eyes, while LM barn keepers are busy elsewhere. Most of Snout Route exhibits are within sight of elephant exhibit.

What are the parameters for continuing, or halting the reduction (tripwire behaviors)?

- The initiation of self-mutilation behavior seems to start a viscous cycle. Once she starts a minor injury she seems to focus on it, making it progressively worse. This needs to be caught very early.
- One indicator that the cycle may be starting is if she starts really banging (kicking) the stall doors at night.

Enrichment?

Diet?

Safety?

Protocols

Staffing

Newer, or cross-training keepers

Night Keepers?

Possible introduction

How long after being off "Ace"?

Other Issues?

Elephant Management Meeting
Agenda

27 June 2001

Construction Update

Review AZA Standards

- ◆ Illumination-workorder and memo submitted to John
- ◆ New Hydraulic Barn doors will have the option to be operated manually. John also indicated that we do have appropriate generators.
- ◆ Barn Floor-floor surfaces will be addressed with matting. John has samples for review.
- ◆ Behavioral profile-submitted by Moriah.
- ◆ Written environmental enrichment plan-need update
- ◆ Bi-annual fecal exams-Dr. Gamble — *April 26 last*
- ◆ Elephant weights-need update — *old company*
- ◆ Urogenital exams-can work toward accomplishing this goal after installation of the restraint
- ◆ Restraint-should be completed by accreditation. Cover is not addressed in the change-order. This will probably fall under the 3-5 year compliance.
- ◆ Foot radiographs-need update
- ◆ Daily exercise program-Heidi submitted.
- ◆ Emergency response Protocol-falls under our institutional procedures. In addition, will include the work in progress for Elephant Escape strategy planning.
- ◆ Anita contacted Mile Keele for Education information. —

Command Catalog for Elephant Back-up.

Review the two-person procedures

Potential off-site area for conservation breeding/projects including elephants

Videotape?

Serum weekly is needed

*➤ ACTION: 10,000 x 2 scales - board
as soon as available
Platform scale.*

Attending

*Anita, Cluck, Kathryn, Mike, Heidi,
Moriah, Andrea.*

Elephant Management Meeting Minutes

27 June 2001

Attended by: Chuck Siegel, Anita Schanberger, Dr. Gamble, Mike Glover, Moriah Champagne, Audra Angelone, Heidi Wester

Construction Update

ARC has started work on the elephant restraint device. ARC estimated a 2 week-2.5 week schedule. Everyone seems pleased with De Godwin and his staff. They are working well with the elephant crew.

Review of AZA Standards

Illumination:

Work order and memo submitted to John

New Hydraulic Barn doors:

We will have the option to operate the doors manually. John also indicated that we do have appropriate generators.

Barn Floor:

Floor surfaces will be addressed with matting. John has samples for review.

Behavioral profile:

Submitted by Moriah. Update profile added to notebook.

Written environmental enrichment plan:

Moriah has provided updated enrichment item approved list. These items need to be added to enrichment matrix. An actual plan/assessment still needs to be implemented.

Bi-annual fecal exams:

Dr. Gamble commented that we are on schedule for our fecal exams. Last fecal exam was April 2001.

Elephant weights:

Moriah reported that Mettler/Toledo is no longer a resource for us. Investigating Nichols scales (free) although training would be a bit of a challenge. Two other sources available for a fee.

Urogenital exams:

We can work toward accomplishing this goal after installation of the restraint

Restraint:

Should be completed by accreditation. Cover is not addressed in the change-order. This will probably fall under the 3-5 year compliance. In the meantime, it was suggested that we tentatively work on a plan for inclement weather situations.

Foot radiographs:

Moriah and Audra have taken measurements of plate and portable unit for training. Training has started with Jenny. Discussed foot position options for actual radiograph. Most radiographs can be taken while Jenny is in a standing position. Dr. Gamble will probably have to contact Dr. Hersmen for use of his radiograph equipment.

Elephant Management Meeting Minutes
18 July 2001

Attended by: Rich Buickerood, Chuck Siegel, Anita Schanberger, Dr. Gamble, Mike Glover, Moriah Champagne, Audra Angelone, Roman Kantorek, Shawna Love

Construction Update

ARC is currently working on the hydraulic barn doors. They still need to hook up the hydraulics for the restraint. Jenny is responding well to the construction. Need to resolve drainage issues in the area of the restraint with John Wickersham

Construction Management

Due to facility limitations the staff is not always able to shift Jenny into another yard and/or barn for cleaning purposes. During construction it might be necessary to enter the enclosure with Jenny while she is chained to address daily cleaning procedures. This procedure needs to be approved by a curator and a supervisor must be present while keepers are in the yard with Jenny while she's chained.

Physical exam update

TB trunk flushes completed. Should receive results in 6 weeks. Dr. Gamble has marked Jenny's tusks for trimming. Results of fecal culture to test for salmonella is pending.

Vasha Update

Vasha is doing well. Sharon Joseph indicated to Anita that she has not cycled since arriving at Disney. A small cyst has been noted near one of her ovaries. Not overly concerned at this time.

Elephant weights

Anita has contacted the Dallas County sheriff's department regarding the use of truck scales. Don Peritz (214-653-2745) will be contacting us about further arrangements. We won't make arrangements for a weight until after construction.

Foot Radiographs

The last foot radiographs were taken in 1997. Dr. Gamble feels the portable unit will be adequate. Jenny has been involved in training sessions however we will wait until construction has been completed to conduct the actual radiographs.

Daily exercise program

Need to follow up with Heidi on her development of the two categories:

- 1) Different items/management that are provided to promote activity (big tires, changing configuration of yard, etc.)
- 2) Training Behavioral Components (A to B's, retrieval, stretch, salute, etc) that promote physical activity. Need this completed by 24 July.

Hot water heater

The heater has been ordered and work order for installation has been submitted.

Off-site Conservation Area

Plan visit to Simmon's Lake after accreditation. Will also revisit the possibility of Samuel Farms. Need to investigate the financial commitment needed for an off-site facility.

Wilds of Africa II

Need to provide all comments by 30 July. Anita is seeking input from SSP coordinators on facility designs.

Herpes-virus

Chuck discussed the recent article in the Dallas Morning News regarding the elephant herpes-virus that has been diagnosed in the captive population.

Elephant Management Meeting – February 6, 2002

Rich
Chuck -
let's discuss options - we must have an elephant.
R
3/26

Present: Anita Schanberger, Ken Kaemmerer., Dr. Alvarado, Chuck Siegel, Mike Glover, Janet Daum., Roman Kantorek., Heidi Wester, Moriah Champagne., Kerrie Hill.

Elephant TAG in April

Positive things for TAG/SSP

- ◆ Sending Vasha out
- ◆ Jenny off Ace

Options:

Jenny staying her by herself without considering options is unacceptable to AZA/USDA and the Dallas Zoo

1. Bring animal in
2. Place Jenny elsewhere

Animal brought in:

(Institution Criteria)

1. Institution will take animal back if doesn't work out or another institution take animal.
2. Approximate same age or older.
3. Stability (Acceptable behavioral history)
 - ◆ Matriarchal
 - ◆ Emotional
 - ◆ Confident
 - ◆ Similar size
 - ◆ Acceptable medical history

Potential Companion

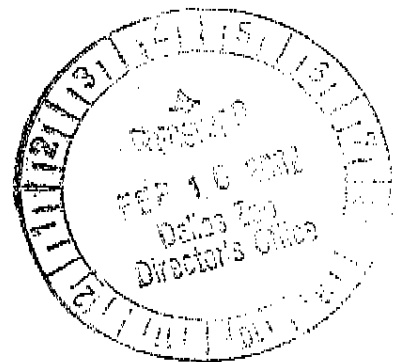
Tanzi (Abilene Zoo)

Positives:

- ◆ 42-44 years old
- ◆ Size appropriate
- ◆ Housed with Asian 20+ years
- ◆ Believed to be the dominant animal at OKC

Concerns:

- Not TB tested since in Abilene (3+ years)
- No blood collected
- No physical exams
- Will not stay in chute
- Did not like to be separated from others
- Did not like to let the others be involved in training (interfered)
- Abilene would not want her to return if she left



What can the Dallas Zoo offer?

- ◆ Good staff
- ◆ Consistency
- ◆ ERD
- ◆ Outstanding medical care

Experience with Introductions:

Roman and Heidi – Introduced Jenny (adult) and Vasha (juvenile)

Program Development

Full PC March 1998

Years Elephant Experience

Anita Schanberger-14 years, 4 institutions, 15 elephants (bulls, cows, juveniles, calves) Asian and Africans

Mike Glover-5 years, Dallas Zoo, 2 African cows

Heidi Wester-11 years, Dallas Zoo, 3 African cows

Roman Kantorek-9 years, Dallas Zoo, 2 African cows

Moriah Champagne-4 years, Dallas Zoo, 2 African cows

Janet Daum-5 years, Dallas Zoo, 2 African cows

Criteria if we place Jenny

- ◆ AZA/Sanctuary (AZA related facility) – Black Beauty/PAWS, Gault, California
- ◆ Protected Contact (appropriate training techniques-no electrical devices or physical discipline)
- ◆ Send Leo with her for transition
- ◆ Good Health care program
- ◆ Option to take her back
- ◆ Experienced staff
- ◆ Nice-sized facility
- ◆ Multiple animals she could bond with
- ◆ Breeding opportunities (prefer they have bull)

Elephant Facility Issues

Description	Priority	WO #	Date
Move two fire extinguisher hangers, so extinguishers hang correct distance above floor (32"?)	Emergency	11306	2/12/03
Repair the rope on the elephant shade structure. Broken or frayed in several places. The elephant was able to pull a piece off and eat it.	Emergency	11291	3/8/02
Meet to review structural integrity of exhibit gate, leading from exhibit to public area. Explore options for "beefing" it up to hold a new elephant.	Project		6/26/03
Excavate and place a subsurface concrete slab at the normally muddy portion of the elephant exhibit. The top of the slab must be buried under several inches of soil.	Project		12/8/01
Construct a mud wallow, using the pre-existing "old rhino pool". Install a French drain system at the bottom, which would incorporate the pool's existing drain.	Project		12/8/01
Construct a "Drag" device, which can be pulled behind a small vehicle (like our Gator). This would be used on a frequent basis to level out smaller depressions, which eventually turn into big ones.	Project		12/8/01
Replace cables of the divider fence in the elephant exhibit with heavier gauge - the same as that on the perimeter fence.	Project		8/29/00
Modify elephant stall keeper doors or install access doors, so keepers can safely access elephants.	Project		12/28/9
Move heater thermostat away from elephant stalls.	Routine	1968	11/1/96
Inspect and repair elephant pool. Water wells up from a crack at the bottom.	Urgent	3383	12/15/9
Repair bent turnbuckles at elephant perimeter fence.	Urgent	2644	9/1/98
Set up a Preventative Maintenance Schedule, whereby the elephant and giraffe yards can be re-graded the first week of each month. In some cases, soil may be needed.	USDA Citatio	11290	12/8/01

Elephant Staff Meeting Minutes
June 24, 2003

Present: Mike, Moriah, Kerrie, Roman and Gina

- Mike recently received an e-mail from Chuck, indicating that the elephant SSP coordinator has informed him that Keke (Tyler Zoo) is slated for coming to Dallas.
 - There is no word as yet as to the status of the acquisition process, but it looks good.
- Potential agenda items for the Elephant Management Team Meeting, later this week:
 - Mike has been communicating with Elizabeth Freeman, the researcher who originated the recent Elephant Acyclicity Study Survey. She expressed a lot of interest in Jenny's case, and asked for more specific details regarding her life history and banked blood samples. Mike informed her that in the past budget issues were the obstacles to having her sample analyzed. She said she would bring this to Janine Brown's attention to see if she had any suggestions.
 - By the way, since we responded so quickly to the survey, we have been entered in a lottery for a year's progesterone analysis free.
 - Moriah visited the Caldwell Zoo this weekend, and was given a BHS tour of elephants. Chico, the San Diego bull is already at Tyler. Keke is currently being introduced to him. The keepers think she is acyclic, but this apparently is not confirmed. Does an intro seem wise at this point, know she will be transferred out?
 - If it looks like we will be acquiring a new elephant, some of our containment issues (work orders and Project Requests) will become even more important. Tyson had indicated at one time that we had all of the equipment and materials to redo the fence cables and tumbuckles, however, this seems to be low on the priority list. The gates may be an issue as well. Mike will generate a list of facility issues that need to be considered.
 - Staffing level will also be critical. We will have to maintain two elephant trainers in the bam at all times to facilitate an increased training tempo, as well as for safety. We cannot afford to lose anyone else, and we need to get new elephant keepers up to speed.
 - We need to have a plan for unloading an elephant in protected contact. We can't back the truck right up to the enclosure, like most other facilities. If the shipper were Eddy Novack, he would probably find this an easy problem to solve. He has probably handled much more challenging situations.
 - We need to start working on an introduction protocol. Information is probably available from other institutions. We could adapt to our situation.
 - If the Keke thing works out, we will probably need to send a staff member to Tyler for a short period to observe her routine and training.
 - Jenny's physical exam and Tb trunk flush is due.
 - We should still remain focussed on training for Jenny's repro. assessment, even in light of recent events. Nothing changes as far as needing to know her repro. status. It is too important for the elephant population.
 - Ken said he asked Chuck to bring up discussion of planning for the giraffe hoof trim at the meeting.

Elephant Management Meeting
Thursday June 26, 2003
1:15pm, Large Mammal Building

Agenda Items:

1. Safety - date of next safety protocol review.
2. Jenny's Repro Assessment: Are we doing it? Get vets involved/what steps need vet approval before beginning them. (Mike)
3. Date for Trunk Flush/Physical: Vet needs to come up frequently for/desensitization. Keepers do trunk flush, doc does physical. (Mike) *Next - Greg/Weech after next - Greg gives bags? Solata*
4. Discuss Chute Operation: Have to have mammal gate open in case of failure, therefore she is not restrained unless chained. (Mike) *ASK John W: what status of motor check is? still uncertain for cold weather, solaroid a hand aid.*
5. Possible new Elephant (Chuck)
 - progress on giraffe hoof trim
6. Are we processing blood for hormone analysis (maybe she is cycling again): (Mike)
7. Can we do stress hormone study (cortisol): (Mike)

Other?

Guidelines as of June 09, 2003

1. Mike will do.
2. Right now - touching back end, lifting tail, and finding rectal area. Greg will ask Tom about next steps. The Vet does the transrectal ultrasound by Dennis Schmidt.
6. We are collecting blood - gets sent out to Janine Brown at Natl Zool. Survey researcher wants more info. Cathy Painter provided list of samples we have to Mike Glover - we will see if Janine Brown can get funding.
Elizabeth Freeman will check. Mike Glover will keep touch.

They will check on sampler.

4. If Jenny gets trapped in the chule.

Active Environments Report -June 2001

Stretching

Training

- Behaviors such as down, stretch, extend trunk and upper body to reach and retrieve an object, standing on tub or rock to reach up, tub work in general or use a rock as you would a tub
- Gradually increase the amount she must stretch muscles to accomplish a higher criteria of the given behavior

Enrichment

- Offer browse very high so that she has to reach to get it
- Provide enrichment so that she has to reach forwards or down (if there is a place to do so)

These are just a few examples that can serve as a guideline to developing an exercise program that address various aspects of exercise. Clearly, enrichment is an important component of exercise, but be sure that the enrichment program is not limited to exercise. Your enrichment program and your exercise program are not mutually exclusive nor do they completely overlap and satisfy the goals of the other.

Enrichment should not only meet the physical needs of the animal, but must address the psychological aspects as well. A social animal being housed alone poses its own set of challenges regarding psychological well-being; this means that your enrichment program must be very dynamic to try to fill the void of social interaction with a con-specific. A few ideas that you may try to implement include:

- Puzzle feeders- challenging ones that you will need to design and have constructed, perhaps made from pipe with openings that she must manipulate food through to make it fall out an opening
- Training of new behaviors- the immediate ones to train, as we discussed, include ones that facilitate exercise
- Social interaction from keeper staff
- Social interaction with another species- the goat we talked about during the March visit- see March report
- Big mirror so that she can see herself- have you seen the article on self-recognition in elephants?

GIRAFFE

We worked primarily with Tano. Some additional desensitization has been done with him since the previous visit. You are able to touch his legs with a brush, but still lack a good location in which to take additional steps such as touching his hooves. The restraint chute will help you by giving you access to feet, legs, as well as other parts of the giraffe. However, there is still a fair amount of training that must be done before you will be able to do any actual trimming on the hooves, plus training him to enter and be closed in the chute may take time. So, again, I suggest that you find ways to further the desensitization training with Tano.

We talked about training him against the moving wall, as this positioning would provide better access to his feet (at least the left one at this time). If you position him in a lean-in or partial

LARGE MAMMALS

Jenny

We discussed various aspects of Jenny's care, focused around creating a comprehensive program that can address her exercise, physical, and psychological needs. A comprehensive program should address all of these needs by using a variety of techniques including training, enrichment, and an adjustment of operational procedures if necessary.

Beginning with exercise. . . I suggest that you consider different types of exercise and develop methods to meet each of these. I find it easier to bread the larger idea of exercise down into several categories, including, aerobic, strength or muscle building, and stretching of muscles. I suggest that you develop behaviors or activities that can meet each of these categories. Some examples follow:

Aerobic

Training

- A's to B's- to make this more interesting, attach a task such as fetching or carrying an object and placing it in a specific location, etc.
- Kicking a ball like in soccer for extended distances
- Reinforce running vs. walking (or at least fast walking)
- Walk or run for increased distances

Enrichment

- Activities that excite her to the point of playing with an object for extended periods of time
- For example, kicking a hanging tire, batting a ball, or kicking a ball on the ground

Operations

- Alter daily pathways so that she has to take the 'long way' into the stall or to get from one side of the exhibit to the other
- For example, use the gate close to the front of the exhibit when possible
- Scatter food to increase foraging and therefore walking

Strength

Training

- Lifting heavy objects
- Log pull and push
- Lifting objects in various positions, such as standing with a leg lifted
- Lifting with trunk, legs, and neck

Enrichment

- Offer heavy objects for her to play with, push, and move
- Structures that enable her to climb and use muscles not normally used on a flat land surface. For example, give a rock pile that she has to climb and forage
- Hide food under objects that must be moved in order to get food
- Digging through substrates with feet and trunk

ELEPHANTS

The main topic of our discussion and work this visit was preparing Vasha for ultrasound. We discussed two possible locations to do the procedure: leaned in at the divider wall or leaned in at the keeper aisle wall. Modifications would need to be made to either area so that an opening large enough to allow safe access to her can be created. But desensitization work to begin the training should be started asap.

Steps to take in the training that can be started immediately include:

- desens to tactile all around anus, including palpation, and beginning to insert a gloved hand.
- enema desens should follow above steps, and include: desens to the hose being inserted and a warm water flush with increasingly more water.
- chaining for all 4's should be included in the training; begin by training her to tolerate one chain at a time, then 2, 3, and 4 at a time.

We talked about chaining vs. not chaining for the procedure. You want as many options available to you as possible. With that in mind, we decided to train for all 4's . chained as a backup, but the primary goal is to do the procedure with no physical restraint.

Chaining will need to be carefully planned:

- Her left legs can be chained to the divider wall (assuming she is on the side nearest the keeper aisle door outside).
- Her right rear can be chained to the keeper aisle wall at the door already in the wall. This will also help to keep her leg off to the side, if necessary.
- Her right front is the tricky one. . . . she can be accessed through the barn door to the yard by cracking it enough for her to present her foot. The chain will need to be long so that she can back up into the proper position and the chain attached at the door (may need to add an attachment point for this chain).
- The front right could also be chained to the divider wall at the point furthest away from Vasha (near the hydraulic door wall) so that her leg is restrained from the front rather than from the side (which could make her feel off balance).

Keeping safety in mind, for this procedure, the opening for the ultrasound access must be large enough to allow for movements that Vasha may make. If the opening is too small, the risk of getting an arm trapped is much greater. Room for lateral as well as vertical movement must be designed in to the modifications.

When keepers begin to desens her, be extra careful of this type of movements she may make. Do not reach in beyond your forearm until the facility changes have been made.

Chaining may be facilitated by having Vasha wear bracelets so that keepers are not in the position of reaching around her legs daily. She should present her foot so that putting either the chain or the bracelet on does not require that keepers reach between her foot and any part of the wall.

Roman -

- She did well w/ the construction etc, after being weaned of ACE, so why use the ACE.
- This sounds like "social engineering".
- Moriah - what if can't have exactly even affect from if use on both elephants.

Ken - smaller enclosure.
Tom - the vet from Caldwell wants to put keke on ace, to modulate their reactions.

- ~~the~~ The ace may keep keke from stressing & breaking up salmonella.

Ken - The attention we had to pay to Vasha when she broke up salmonella upon entry. Resulted in Jerry being very jealous and later attacked Vasha.

- Take her over a 10-day period up 500 mg.

• Quarantine - Bird staff need to be included in the LMB quarantine.

• all

✓ NO TOURS FOR 60 Days ✓ *Ann Fritz*

Elephant Management Team (EMT) Meeting Discussion Items
Tuesday, September 02, 2003

- Status of facility modifications
- ✓ Olfactory enrichment idea
- ✓ Ace-promazine protocol
- Keke's history of colic
- ✓ Discussion with Lincoln Park elephant keeper about Keke.
- ✓ Steve Fritz visit, Monday, September 8
- ✓ Coordinating activities with other Departments (impact of maintenance activities and DZS events)
 - Synopsis of planned media events
- ✓ Tyler trip schedule
 - "Play book" and advance walkthrough for Keke's delivery.
- ✓ Food list from commissary for extra novel during first 2 - 3 days of intro.
 - Status of ERD
 - Introduction protocol in process
 - Sam Mezzell has video of Disney elephant intros
 - Evening watch schedule
- ✓ Yard work prior to Keke's arrival.
 - Plan for documenting introduction events for later use (camera source, tapes, staff, etc.)
 - Gina started training as elephant Trainer
 - New temp. LM keeper to train as elephant back up, as well as to back up Cat Row.

yes, if building goes under garage

Keke - would need something for transport. Ken thinks we should use.

From Ken "we know you react poorly to new elephants."

- Quarantine