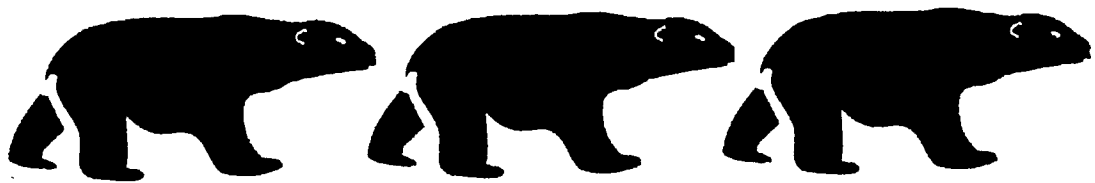


**ENRICHMENT
MANUAL**



**POINT DEFIANCE
ZOO & AQUARIUM**

**ENRICHMENT
MANUAL**

DEFINITIONS
GOAL-SETTING

PLANNING

APPROVAL

IMPLEMENTATION

DOCUMENTATION

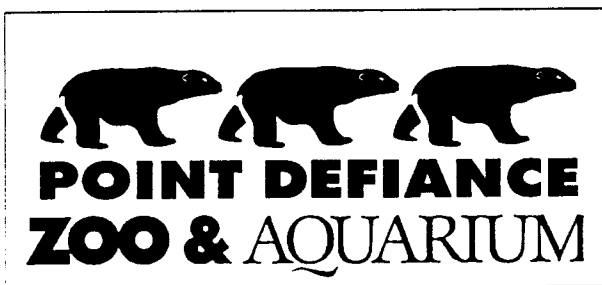
EVALUATION

PROGRAM REFINEMENT

APPROVED
ENRICHMENT
LIST

COMMITTEE
MEETING
MINUTES

LINKS



What is enrichment?

Environmental enrichment is achieved by adding objects/devices to a captive animal's environment or by modifying its environment to stimulate natural activities that more closely resemble those of a healthy wild animal (Shepherdson, 1992b). An enriched environment should also offer a captive animal the ability to make choices for itself, such as whether to hide or not, what kind of temperature and weather to experience, when and how to acquire food etc (AAZK 1998).

Behavioral enrichment aims to allow captive animals to express a wider range of wild behavior. The expression of these species appropriate behaviors improves animal welfare by satisfying an animal's physical and psychological needs (Carla Litchfield, UA, AAZK 1998).

The two types of enrichment are often intertwined to form a program which provides the animals with a more challenging and stimulating environment to increase the range and diversity of natural behavioral patterns as well as reduce or eliminate aberrant behaviors (Shepherdson, 1991).

Category: All enrichment, based on type, will be assigned to one or more categories. Categories are noted on the implementation calendars.

Enrichment item: Any listing in a category is referred to as an enrichment item.

GOAL-SETTING

Enrichment is intended to encourage behaviors that are appropriate for the species and that satisfy an animal's physical and psychological needs. An enriched environment should also offer a captive animal some sense of control resulting from its ability to make choices for itself.

The goals of the PDZA enrichment program are to achieve the following:

- 1) Provide a varied stimulating program of enrichment to as many species as possible.
- 2) Improve the quality of life for animals in our care.
- 3) Reduce, eliminate, or avoid abnormal behavior patterns.
- 4) Provide a better educational opportunity for PDZA visitors by increasing natural behaviors and activity levels of our animals.
- 5) Improve animal well being by increased exercise.
- 6) Assist in the conservation of endangered species by enhancing captive breeding through improvements in social group composition.
- 7) Support successful animal management and care through the application of operant conditioning techniques.
- 8) Develop procedures of approving, documenting, and refining enrichment efforts.

- 9) Compile an index of enrichment methods, tools and trained behaviors.

- 10) Provide continuing educational opportunities for staff; including intra-PDZA keeper rotation.

- 11) Communicate zoo wide all enrichment program efforts.

PLANNING

The Enrichment Committee should oversee behavioral and environmental enrichment with the responsibility of directing what is occurring within the program.

Committee Structure

The enrichment committee will be comprised with at least one representative from the Aquarium, Rocky Shores/Tundra, Southeast Asia/Farm, Veterinary, and the World of Adaptations.

The General Curator will serve as the committee advisor.

The length of service for representatives will not exceed two years if other staff members express interest to the General Curator.

Approval Protocol

All environmental enrichment efforts must be approved prior to initiation.

Approval needs to be obtained from the department's senior keeper, veterinarian and the General Curator.

After approval the enrichment committee at the earliest opportunity will review the new enrichment effort. Initiation does not need to wait for committee review.

New behavioral enrichment will be at the discretion of the departments' manager. The enrichment committee at the earliest opportunity will review new behavioral enrichment efforts.

All enrichment methods/tools will be categorized under one or more of the following:

- Sensory
- Foods/Feeding
- Toys/Manipulative
- Behavioral/Social
- Environmental

ENRICHMENT REQUEST FOR APPROVAL

NAME _____ DATE _____ DEPT. _____ PHONE _____

Species _____

Other applicable species _____

Enrichment to be used _____ on exhibit _____ off exhibit

DESCRIPTION (Provide diagram if necessary)

PURPOSE

____ Routine

____ Reduce stress

____ Reduce abnormal behavior

____ Increase social interactions

____ Educational/research

____ Other: _____

CATAGORY

____ Sensory

____ Food/Feeding

____ Toys/Manipulative

____ Behavioral/Social

____ Environmental

GOALS (describe briefly)

Has another department or zoo used this idea? _____

Have they been contacted? (attach contacts) _____

Has the idea been discussed within the department? _____

Have risks and hazards been addressed? _____

STAFF

Time requirements: ___ construction ___ installation ___ maintenance

Staff availability

for evaluation: ___ none ___ check sheet ___ behavioral observation

Volunteer observer availability: _____

MATERIALS

Required materials _____

Source: ___ store ___ zoo grounds ___ donation

Estimated cost: _____

Construction by: ___ keepers ___ maintenance dept.

APPROVAL

Area senior keeper _____ Approved _____ Disapproved _____

Veterinarian _____ Approved _____ Disapproved _____

Curator _____ Approved _____ Disapproved _____

Work order required: ___ Yes (attach copy) ___ No

If denied, list reasons and suggestions for gaining approval: _____

Enrichment Committee Review

Date: _____

Comments: _____

Implementation Protocol

Once an enrichment method/tool as been approved initiation is at the keepers' discretion.

Each department will submit a completed enrichment calendar by the seventh of each month for committee review.

Data collection by volunteer staff needs to be coordinated through the Volunteer Coordinator at least one week in advance.

Each species will have at least one calendar.

Frequency of implementation:

- 1) Enrichment will be provided as part of the keepers' husbandry routine a minimum of 1X/week for the following animal groups:
 - Hoof stock (other than elephants & pigs)
 - Birds (other than corvids and psitticines)
 - Reptiles
 - Amphibians

- 2) Enrichment will be provided as part of the keepers' husbandry routine a minimum of 2X/week or every two days dependant on the animal group specified below.
 - Primates every 2 days
 - Bears every 2 days
 - Felines every 2 days
 - Elephants 2X/week
 - Psitticines and Corvids 2X/week
 - Marine Mammals every 2 days
 - Cephalapods 2X/week
 - Sharks 2X/week
 - Pigs 2X/week

- 3) Enrichment will be provided as part of the keepers' husbandry routine a minimum of 1X/month for all fishes.

- 4) Enrichment items cannot be implemented two consecutive times.

Implementation Safety concerns

1. Can the animals get caught in it or become trapped by it?
2. Can it be used as a weapon?
3. Can an animal be cut or otherwise injured by it?
4. Can it fall on an animal?
5. Can the animal ingest the object or a piece of it?
6. Is any part of it toxic, including paint or epoxy?
7. Can it be choked on or cause asphyxiation or strangulation?
8. Can it become lodged in the digestive tract causing gut impaction?
9. In a multi-species exhibit or other social grouping, could a larger or smaller animal become stuck or injured by the object?
10. Can it destroy an exhibit?
11. Is food enrichment included as part of the animals' regular diet?
12. Can the manner of enrichment presentation promote aggression or harmful competition?
13. Has browse been determined to be non-toxic?
14. Do the animals show signs of allergies to new item?
15. Does the enrichment cause abnormally high stress levels?

Documentation

Documentation maintained at the department level:

Documentation of enrichment efforts will be maintained on a daily basis in conjunction with the implementation calendar.

More in depth documentation will take place at the initial enrichment offering. Thereafter, in depth documentation will be more random as staffing levels dictate.

Documentation of behavioral enrichment through the application of operant conditioning techniques will be maintained in the individual animals' records. Current behavior lists for all appropriate animals will be submitted to the enrichment committee every March 31, June 30, September 30, and December 31.

Documentation maintained at the committee level:

The enrichment committee will maintain a current enrichment manual; including up to date behavior lists, approved enrichment methods and tools, and evaluation forms.

In-depth Enrichment Data Collection

Department: _____ Date: _____
Species: _____ Observer: _____

Description of enrichment practice: _____

Time of introduction: _____ First time offering? Yes No

Observations on initial reaction to enrichment

Did the animal(s) go right to the enrichment? Yes No N/A
Did the animal(s) interact with the enrichment? Yes No N/A
How long did the animal(s) interact with the enrichment? _____
Duration of observations: _____
Comments: _____

Observations made after the initial introduction

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Comments: _____

Enrichment Evaluation

Evaluation of enrichment efforts will take place at the weekly team meetings of each department.

Evaluation of enrichment efforts will take place at monthly enrichment committee meetings.

Department senior keepers will submit completed enrichment calendars and data collection forms monthly to the committee.

Enrichment Evaluation

Department: _____ Date: _____

Species: _____

Description: _____

Was the enrichment purpose achieved?

Were goals achieved?

Data review:

Committee recommendations:

Program Refinement

It is the responsibility of the enrichment committee to shape a zoo wide enrichment program that strives to achieve the goals outlined in section 1. The committee will have the discretion to refine all efforts to have a successful program.

Program Refinement

From the monthly committee meeting minutes of:
13 February 2003

Enrichment Manual Review - Chapters 6 & 7

Chapter 6 - Enrichment Evaluation

There is a small amount of language change to this chapter.
Change the following:

Evaluation of enrichment efforts will take place at the weekly team meetings of each department.

To:

Evaluation of enrichment efforts will take place at team meetings of each department.

Change the following:

Department senior keepers will submit completed enrichment calendars and data collection forms monthly to the committee.

To:

Department senior keepers will retain completed enrichment calendars and data collection forms for periodic review by the committee.

New language will be added to chapter 6 to set protocol for data collection suitable for scientific review. KGB needs to explain ethograms to the committee before this addition to the manual can proceed.

Chapter 7 - Program Refinement

The committee was content with the language of this chapter.

A new in depth data collection form developed by a volunteer was presented. This is a trial & error approach to coming up with a suitable format for the form. We'll check on its usability at our next meeting.

We have now completed a review of the entire manual. The first revision to produce our second edition will begin soon.

Program Refinement

From the monthly committee meeting minutes of:
20 March 2003

The committee reviewed each section of the enrichment manual during the March committee meeting. Following are the comments and suggestions:

- 1) **Definitions & Goal-setting**: No changes were suggested.
- 2) **Planning**: Each area, except for the Aquarium, is planning enrichment well. There might be room for improvement in our record keeping methods so that our planning efforts are more obvious.
- 3) **Approval**: The approval process seems to be working well. There was some concern about the frequency that approval forms are returned from Dr. Holly. Paul will talk with Dr. Holly to see how we can minimize the rejection rate.
- 4) **Implementation**: Except for the Aquarium, every area is implementing enrichment well; meeting or exceeding stated minimums.
- 5) **Documentation**: Only WOA is doing an excellent job at documenting enrichment efforts. Minimum documentation involves the monthly calendars. These calendars work well for WOA, but not that great for RS/Tundra. A form upgrade is in the works for RS/Tundra. Legibility of our records needs some attention. All areas are challenged to gather in-depth documentation
- 6) **Evaluation**: This is our first effort to evaluate our program. Evaluation of individual enrichment items/methods should start soon.
- 7) **Program Refinement**: Suggestions should come from this first evaluation; see below.

Action to be taken:

- = Paul will talk with Dr. Holly about approval forms.
- = Lisa will work on a new planning/documentation form for Rocky Shores/Tundra.
- = Evaluation of individual enrichment items &/or methods will begin at the April committee meeting.

Program Refinement

From the monthly committee meeting minutes of:
25 April 2003

Enrichment Category Review:

The sensory category was up for review this month. There were no suggested deletions for the approved list. It was suggested that each area make their list more precise. For example, we now have items that simply state "scent extracts" or "spices". We believe that it will be valuable to actually list each scent or spice used. It was also suggested that a rating scale be introduced to our approved lists. Right now we use an "X" under an animal to denote an approved item. The following scale was suggested:

- X: Item is approved but has not been reviewed
- 0: No measurable effect
- 1: Marginally effective item
- 2: Effective item
- 3: Extremely effective item

We only talked about a rating of 1 through 3. But I thought it would also be valuable to mark down things that don't work.

Program Refinement

From the monthly committee meeting minutes of:
26 September 2003

The committee reviewed the goals stated in chapter one of the manual. There are eleven goals most of which the committee thought we have achieved or are in the process of achieving. We did come up with some modification to the following:

Goal #3 Reduce, eliminate, or avoid abnormal behavior patterns.

We do believe that our enrichment program does help to deter or avoid abnormal behavior patterns. However, to reduce and eliminate abnormal behavior we need to identify abnormal behavior exists. So, we feel that specific animals should be cited with respect to this goal. For example, if the porcupines are pacing in front of their shift door more than we believe is appropriate, then they should be listed as one of the goals of the program. Perhaps, more importantly, their response to enrichment should be monitored with this goal in mind.

Goal #4 Provide a better educational opportunity for PDZA visitors by increasing natural behaviors and activity levels of our animals.

The committee feels that most of our enrichment efforts would not be increasing natural behaviors. Most efforts do increase activity levels. So, it is suggested that increasing natural behaviors be removed from Goal #4.

Goal #5 Improve animal well being by increased exercise.

Here again the committee decided that specific animals should be listed as the focus of this goal.

Goal #11 Communicate zoo wide all enrichment program efforts.

We do recognize the monthly enrichment winner at the all-staff breakfast meeting. But this is the extent of our zoo wide communication efforts. For this reason we feel that Goal #11 has not even come close to being achieved. To correct this we will request some space be devoted to the enrichment program in volunteer, member, and employee newsletters.

LINKS

Environmental Enrichment for Primates	www.awionline.org
Honolulu Zoo	www.honolulu zoo.org/enrichment_activities.htm
Disney	www.animalenrichment.org
Fort Worth Zoo	www.fortworthzoo.org
Otto Environmental	www.ottoenvironmental.com
Animal Management Resources	www.amrchicago.com
Desert Plastics	www.desertplastics-abq.com
Shape of Enrichment	www.enrichment.org
Suppliers & Products	www.nal.usda.gov/awic/pubs/enrich/supplier.html

SOUTHEAST ASIA BEHAVIORAL ENRICHMENT LIST

30 June 2003

Elephants

Training in progress:

Hanako

Open Mouth

Blood Draw

ERC desensitization

Suki

Open Mouth

Eye presentation

Reindeer

Training in progress:

Halter training with Taiga, Nova, & Scotia.

PIG

Training in progress:

Scale desensitization

**SOUTHEAST ASIA
BEHAVIORAL ENRICHMENT LIST
30 September 2003**

Elephants

Completed behaviors from June 2003:

Hanako
Blood Draw

Suki
Open Mouth

Training in progress:

Hanako
Eye presentation
Open mouth
Rear foot soak

Suki
Eye presentation
Tush presentation
Tail presentation

Reindeer

Completed behaviors from June 2003:

Taiga
Halter training

Training in progress:

Nova & Scotia
Halter training

Pig

Completed behaviors from June 2003:

Scale desensitization

Crested Porcupines

Training in progress:

Brownie & Whitie
Transfer crate desensitization

SOUTHEAST ASIA BEHAVIORAL ENRICHMENT LIST

31 March 2003

ELEPHANTS:

Target conditioned	ERC conditioning
Foot trimming	Nail filing
Trunk up/down	Steady
Come to keeper	Move forward
Move backward	Lie down (Suki only)
Go through gate	Ear presentation
Object retrieval (Suki only)	Foot soak

Reindeer:

Halter trained

Goats:

Foot trim (DB, Kiwi, Sherman, Mudpie, Beyaz, LeeLee)

Llama:

Foot trim
Halter trained

Southeast Asia/Farm Approved Enrichment List

Foods/Feeding	Elephants	Tigers	Gibbons/Siamangs	ASC Otters	Anoas	Tapirs	Tragopans	Porcupines	Binturongs
Pinkies			X						
Crickets			X						
Mealworms			X						
Natural prey meat			X						
Rawhide			X						
Watermelons (whole)	X		X						
Mice			X						
Frozen food			X						
Hanging food			X						
Hidden/buried food			X						
Vary feeding time			X						
Bread	X								
Peanut Butter	X								X
Jam	X								X
Oatmeal	X								
Molasses	X								X
Jell-O	X								
Tortillas	X								
Honey	X								X
Ice	X	X	X						X
Cookies	X								
Pastries	X								
Fruit Kabobs									
Any Fruit	X								X
Any Vegetable	X								X
Tuna		X							
Rabbits		X	X						
Quail		X	X						
Chick		X	X						
Pumpkin	X	X	X						
Horsemeat		X	X						
	E	L	W	R	T	Rh	LL	G	P
	E	L	W	R	T	Rh	LL	G	P
Ice Cream		X							
Bones		X	X						
Alder	X			X				X	
Maple	X			X				X	
Fir	X								
Bamboo	X							X	
Willow	X							X	
Apple	X								
Dogwood	X							X	
Turkey Necks/Backs			X						
Chicken Necks/Backs			X						

Key:
 E = Elephants
 L = Leopards
 W = Wolves
 R = Reindeer
 T = Tragopans
 Rh = Rheas
 LL = Llamas
 G = Goats
 P = Pig
 D = Ducks & Goose
 J = Jungle Fowl
 Lo = Lorikeets

NO genus Prunus

Southeast Asia/Farm Approved Enrichment List

Cooked Chicken			X						
Peanuts					X				
Apple					X				
Corn on the Cob					X				
Grapes					X			X	
Apple Browse								X	
Grape Browse								X	
Poplar								X	
Pear Browse								X	
Cotoneaster								X	
Hawthorn								X	
Elm								X	
Birch								X	
Clover Clumps								X	
Grass Clumps								X	
Rose Hips								X	
Camellia								X	
Honeysuckle								X	
Buddleia								X	
Eleagnus								X	
Photinia								X	
Eugenia								X	
Hibiscus								X	
Viburnum								X	
Worms									

Especially berries

Key:

E = Elephants

L = Leopards

W = Wolves

R = Reindeer

T = Tragopans

Rh = Rheas

LL = Llamas

G = Goats

P = Pig

D = Ducks & Goose

J = Jungle Fowl

Lo = Lorikeets

	E	L	W	R	T	Rh	LL	G	P
Behavioral/Social	E	L	W	R	T	Rh	LL	G	P
Training sessions	X			X			X	X	X
Walks		X		X			X	X	
Inter. w/other species		X		X			X	X	
Grooming				X			X	X	

Outreach only on leopards

	E	L	W	R	T	Rh	LL	G	P
Sensory	E	L	W	R	T	Rh	LL	G	P
Crushed Brewer's yeast			X						
Mustard			X						
Lemon peel			X						
Orange peel			X						
Rose petals			X						
Nature tapes			X						
Feathers		X	X						
Antlers		X	X						
Bubble Bath	X								
Onion Powder			X						
Chives			X						
Sage			X						
Rosemary			X						
Coriander			X						

Key:

E = Elephants

L = Leopards

W = Wolves

R = Reindeer

T = Tragopans

Southeast Asia/Farm Approved Enrichment List

Ginger			X						
Paprika			X						
Nutmeg			X						
Cumin			X						
Allspice			X						
Vanilla Extract		X	X						
Cinnamon		X	X						X
Peppermint Extract		X	X						
Cloves		X	X						
Garlic Powder		X	X						
Almond Extract		X	X						
Perfume		X							X
Catnip		X							
Fresh Herbs		X	X						X
Blood Popsicle		X	X						
Scent Extracts		X	X						X

Rh = Rheas
 LL = Llamas
 G = Goats
 P = Pig
 D = Ducks & Goose
 J = Jungle Fowl
 Lo = Lorikeets

Environmental	E	L	W	R	T	Rh	LL	G	P
Hiding Places			X						
Pine Cones			X						
Grass Flats			X						X
Nylabones			X						
Kong Toys			X						
Elk Fur			X						
Bison Wool			X						
Straw Flakes			X						
Feathers			X						
Large Logs	X							X	
Bark Mulch			X						
Wood Shavings			X						
Leaves			X						
Dirt Piles			X						
Sand Piles	X		X						
Large Rocks								X	
Brushes								X	
Tree Limbs				X				X	X
Tree Trunks/Stumps									
Rearrange Furniture		X	X					X	

For scratching

	E	L	W	R	T	Rh	LL	G	P
Sensory	Rp								
Spices/herbs	X								
Perfume	X								
Logs/spices	X								
Rocks	X								
Feathers	X								
Noise maker	X								
Antlers	X								

Key:
 Rp = Reptiles

June 2002

Animal: _____

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						S
2	3	4	5	6	7	8
		F			T	
9	10	11	12	13	14	15
	S			E		
16	17	18	19	20	21	22
F			T			S
23	24	25	26	27	28	29
		F			T	
30						

In-depth Enrichment Data Collection

Department: _____ Date: _____
Species: _____ Observer: _____

Description of enrichment practice: _____

Time of introduction: _____ First time offering? Yes No

Observations on initial reaction to enrichment

Did the animal(s) go right to the enrichment? Yes No N/A
Did the animal(s) interact with the enrichment? Yes No N/A
How long did the animal(s) interact with the enrichment? _____
Duration of observations: _____
Comments: _____

Observations made after the initial introduction

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Time: _____ Duration of observation: _____
Was the animal(s) still interacting with the enrichment? Yes No

Comments: _____

Enrichment Evaluation

Department: _____ Date: _____

Species: _____

Description: _____

Was the enrichment purpose achieved?

Were goals achieved?

Data review:

Committee recommendations:

ENRICHMENT REQUEST FOR APPROVAL

NAME _____ DATE _____ DEPT. _____ PHONE _____

Species _____

Other applicable species _____

Enrichment to be used _____ on exhibit _____ off exhibit

DESCRIPTION (Provide diagram if necessary)

PURPOSE

- _____ Routine
- _____ Reduce stress
- _____ Reduce abnormal behavior
- _____ Increase social interactions
- _____ Educational/research
- _____ Other: _____

CATAGORY

- _____ Sensory
- _____ Food/Feeding
- _____ Toys/Manipulative
- _____ Behavioral/Social
- _____ Environmental

GOALS (describe briefly)

Has another department or zoo used this idea? _____

Have they been contacted? (attach contacts) _____

Has the idea been discussed within the department? _____

Have risks and hazards been addressed? _____

STAFF

Time requirements: ___ construction ___ installation ___ maintenance

Staff availability
for evaluation: ___ none ___ check sheet ___ behavioral observation

Volunteer observer availability: _____

MATERIALS

Required materials _____

Source: ___ store ___ zoo grounds ___ donation

Estimated cost: _____

Construction by: ___ keepers ___ maintenance dept.

APPROVAL

Area senior keeper _____ Approved _____ Disapproved _____

Veterinarian _____ Approved _____ Disapproved _____

Curator _____ Approved _____ Disapproved _____

Work order required: ___ Yes (attach copy) ___ No

If denied, list reasons and suggestions for gaining approval: _____

Enrichment Committee Review

Date: _____

Comments: _____

November 2004

Leaphata

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	8	9	10	11	12	13
	8	S PR	T SP			13 ES / SB
7						
	E plab					F PR
14	15	16	17	18	19	20
E PR		T M				F Surgery VFD PR
21	22	23	24	25	26	27
E PR			S			27 PR
28	29	30				
28 PR CPAD		T PR				
S						

DAILY ENRICHMENT RECORD

SPECIES _____

ISIS# _____

Date Offered	Enrichment Category/Item	Keeper	Date Removed	Keeper	Comments
11/2	Garlic powder	SP			Loved it!
	in yard pm				
11/3	Galvanized rings hung ^{in yard}	SP	11/8	SP/AD	
11/6	banana balls	ES/SS			
11/8	Put in back yard	SP/AD			Haruko was busy eating all the leaves.
	in am				
11/13	Snoozers put treats			SP	
	in yard				
11/14	Piles of shavings in yard		-	SP	observed Suki eating some of it
	Dill in yard pm	SP			
11/14	keg w/ pellets	AD			
11/20	treats in yard	Snooze			
	enrichment - grain bags w/ treats				- keeper for a day
	alder branches	AD			
11/21	Chili powder in yard	SP			Suki wore it.
11/28	GRAPE DRIFT BUSTER in yard	CAW			
11/27	bamboo	PP			
	→ Annamom powder in yard in pm				They ate it. Yummy!
11/30	fire hose chain	AD/SS			

December 2004

Elphanta

Sun	Mon	Tue	Wed	Thu	Fri	Sat
5 \$P	6	7	1 E \$P/\$P	2	3	4 E AD
12 SE \$P	13	14 AD \$P	8	9 T	10	11 E AD + AG
19 T \$P	20	21 S \$P	15	16	17	18 F
26 A \$P	27 T \$P	28 S \$P	22	23 S \$P	24	25 E AD
			29	30 S AD/\$P	31	

DAILY ENRICHMENT RECORD

SPECIES _____

ISIS# _____

Date Offered	Enrichment Category/Item	Keeper	Date Removed	Keeper	Comments
11/1	Access to back yard	SP			
	yard in pm				
12/4	misc. produce	AD			grapes, papaya, etc.
12/5	Access to back yard				
	in pm.				
	Cinnamon sprinkled in holding	SP			
12/12	Keq w/ pellets Reset Re-set Toy on Force	CW	12/15	PP	
12/14	dry RASPBERRY lelo spread around yard	CW			
	Cinnamon in yard				mmm... yummy!
12/18	popcorn	AD/AG			plain popcorn
	lemonade				in drinkers
12/19	Cinnamon sprinkled	SP			
	in yard in pm.				
12/20	Keq w/ pellets	SP			
12/23	Cloves spread	SP			
	in barn				
12/25	Back yard only. Put pellets				on early due to holiday.
	in boxes & apple slices in drinkers.				
12/28	Cinnamon in yard, pm.				yum!!
12/30	Fir trees & nectar	CW/SP			