

Bamboo

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female Acc. #: 20073
Age: 41Y 7M Est. Birth: 4.Nov.1966

=====

.....2008....

11.Apr.2008

Problem: skin crack (Confirmed); FOLLICULITIS - tail (Confirmed);
hyperkeratosis - tail (Confirmed)
Cytology Report
Outside Laboratory

Date Collected: 11 April 2008
Date Submitted: 11 April 2008
Laboratory: Phoenix
Sample ID#: 804110738
Pathologist: Dr. Mesher

SAMPLE SUBMITTED: Two swabs
SITE OR SOURCE: Ear exudate
MICROSCOPIC DESCRIPTION: Smears were prepared from the submitted swabs. They contain low to moderate numbers of bacilli with some amorphous debris and a few mature squamous cells.
INTERPRETATION: BACTERIAL PROLIFERATION
COMMENTS: These bacteria could be primary or secondary pathogens or normal inhabitants. No fungi, yeasts, or inflammatory cells are found. Cellular preservation and exfoliation from submitted swabs can be quite variable and result in less than optimal smear quality, as in this case. Strongly recommend preparing smears directly and immediately after collection of such samples, rather than submitting swabs for cytologic evaluation. (*CY)

OUTSIDE LABORATORY
MICROBIOLOGY FORM

DATE COLLECTED: 11 April 2008
DATE SUBMITTED: 11 April 2008
SAMPLE SOURCE: ear
LAB: Phoenix
LAB ID#: 804110735

RESULTS: Culture & Sensi, Aerobic
Date: 4/16/2008
1 Source EAR
Microscopic GRAM STAIN RESULTS:
Debris, moderate
Gram positive rods, many

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female Acc. #: 20073
Age: 41Y 7M Est. Birth: 4.Nov.1966

=====

11.Apr.2008

Problem: skin crack (Confirmed); FOLLICULITIS - tail (Confirmed);
 hyperkeratosis - tail (Confirmed)

Gram negative rods, few

Organism Mixed flora

Quantity Heavy growth

Comment No predominant organism or pathogen noted.

*

SENSITIVITY NOT INDICATED

Organism The mixed flora includes:

Comment Coryneform gram positive rods, presumptive Actinomyces
species, Staph. coagulase negative and at least two
non-fermenting gram negative rods

NO SALMONELLA ISOLATED []
NO SHIGELLA ISOLATED []
NO CAMPYLOBACTER ISOLATED []

COMMENTS: (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: 20073
Asiatic elephant	Age: 41Y 7M Est.	Birth: 4.Nov.1966
Name: BAMBOO		

=====

.....2008...

3.May.2008

Problem: skin crack (Confirmed); FOLLICULITIS - tail (Confirmed);
hyperkeratosis - tail (Confirmed)

EEHV testing update. EEHV titer negative on PCR. Clinically
elephant. Sample is from blood obtained 24Apr08.

03May. This elephant remains clinically normal with no abnor
on bloodwork. To date, no evidence of EEHV in this patient.
to submit EEHV samples for PCR on all 3 elephants to see obta
data to assist with interpretation.

Current treatment/diagnostic plan:

1. CBC/panel/fibrinogen every other day x 10 days
2. EEHV serum/EDTA every other day x 10 days
3. Fecal bacterial culture SID x 5 days
4. Fecal EM and VI SID x 5 days

Treatment/diagnostic plan may be changed as needed to reflect clinical
changes and results of diagnostic tests. (KEH)

Bambos -

Med Recs PDZA

Prescription Records Report - Individual Specimen
POINT DEFIANCE ZOO & AQUARIUM

COPY

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

=====

Purpose: ABCESS - right hip region (Confirmed)
Exam - right hip region

Prescription Data >>

Starting date: 2.Mar.2006

Drug: HONEY (UNPASTEURIZED) ml topically BID for 7 days

Formulation: liquid

Prescribed by: ALC (2.Mar.2006)

Filled by: ALC (2.Mar.2006)

Treatment weight: 3760 kg

=====

Purpose: ABSCESS - right hip region (Confirmed)

Prescription Data >>

Starting date: 9.Mar.2006

Drug: HONEY (UNPASTEURIZED) ml topically BID for 7 days

Formulation: liquid

Prescribed by: ALC (2.Mar.2006)

Filled by: ALC (2.Mar.2006)

Treatment weight: 3760 kg

Comments >>

Topical treatment: Apply to

=====

Purpose: ABCESS - right hip region (Confirmed)

Prescription Data >>

Starting date: 18.Apr.2006

Drug: FURAZOLIDONE mg topically BID for 14 days

Formulation: ointment

Prescribed by: HHR (18.Apr.2006)

Filled by: JCL (18.Apr.2006)

Treatment weight: 3760 kg

Clinical response to treatment: Good

Comments >>

Topical treatment: Apply to abcess on right hip

=====
Parasitology Records Report - Individual Specimen
POINT DEFIANCE ZOO & AQUARIUM
=====

=====
ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO
=====

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966
=====

Submission Data >>
Type: Fecal sample
Purpose: PRESHIPMENT EXAMINATION

Sample id.: 2006-0108
Date collected: 3.May.2006

Collected from:
From an individual specimen.

Enclosure: SEA

Examination Data >>
Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 4.May.2006

Tests & Results >>
003110

Submission Data >>
Type: Fecal sample
Purpose: PRESHIPMENT EXAMINATION

Sample id.: 2006-0107
Date collected: 10.May.2006

Collected from:
From an individual specimen.

Enclosure: SEA

Examination Data >>
Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 11.May.2006

Parasitology Records Report - Individual Specimen
POINT DEFIANCE ZOO & AQUARIUM

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966

Submission Data >>

Type: Fecal sample
Purpose: PRESHIPMENT EXAMINATION

Sample id.: 2006-0125
Date collected: 5.Jun.2006

Collected from:

From an individual specimen.

Enclosure: SEA

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 6.Jun.2006

Tests & Results >>

002350

Request for EEHV testing

Department of Pathology
Smithsonian National Zoo
3001 Connecticut Ave. NW
Washington, DC 20008
(202) 673-4869

Date 27 April 04
Requestor's name Holly Reed, DVM
Institution Point Defiance Zoo & Aquarium
Address 5400 N. Pearl Street
Tacoma, WA 98407
Phone/email 253-404-3639 hreed@pdza.org

Animal Name/ISIS # "Bamboo" TASM10

Age 40 years

Species Asian Elephant

Reason for request (i.e. current symptoms of possible EEHV, or possible exposure to EEHV) Pre-shipment Request

Type of samples being sent Serum

Before sending samples, please call Erin Latimer 202-673-4869 (W)
703-471-2168 (H)

or

Laura Richman 301-398-4741 (W)
301-253-8723 (H)

Please send samples **overnight on dry ice in a sealed cooler**. The best day to send samples is Wednesday, for Thursday delivery.

Sent 25 April 06 for TB Testing

6073

Appendix III Elephant Serum Bank Submission Form

Institution/owner: Point Defiance Zoo & Aquarium
Submitter: Holly Reed, DVM
Address: 5400 N. Pearl Street
Tacoma, WA 98407
Tel: 253-404-3639 Fax: 253-404-3639 Email: hreed@pza.org

Animal Information

Asian African ISIS# 105M10 Studbook # _____
Name Bumboo Age: 40 [x] actual [] estimate
Sex: [] male female

SAMPLE COLLECTION INFORMATION

Date of sample collection: 25 Apr 100 Time of collection: 10:00
Site of sample collection: [x] ear vein [] leg vein [] other: _____
Health status of animal: [x] normal [] abnormal
Fasted: [x] no [] yes - how long _____
Weight _____ [] actual [] estimated
Type of restraint: [x] manual [] anesthetized/sedated [] behavioral control
Temperament of animal: [] calm [] active [] excited

Type of blood collection tube:

[] no anticoagulant (red-top)
[] EDTA (purple)
[] heparin (green)
[x] other: Serum Separator
Sample handling: [x] separation of plasma/serum by centrifugation
(check all that apply) [] stored as whole blood
[] frozen plasma/serum
[x] other - describe fresh

TB EXPOSURE STATUS

[] Known infected animal
[] Known exposure to culture positive source within the past 12 months
[] Known exposure to a culture positive source within the past 1-5 years
[x] No know exposure to a culture positive source in the last 5 years

TREATMENT INFORMATION

Is elephant currently receiving any medication or under treatment? [] yes [] no
If yes, please list drugs and doses: _____

Time between blood collection and last treatment: _____

Ship samples overnight frozen with shipping box marked "PLACE IN FREEZER UPON ARRIVAL"

Send completed form with samples to:
Dr. Michele Miller
Disney's Animal Kingdom-Dept. of Vet. Services
1200 N. Savannah Circle West
Bay Lake, FL 32830
(407) 939-7316; email: Michele.Miller@disney.com

Sent 20 April 04 for TB testing

COPY

Appendix III Elephant Serum Bank Submission Form

Institution/owner: Point Defiance Zoo & Aquarium
Submitter: Holly Reed, DVM
Address: 5400 N. Pearl Street
Tacoma, WA 98407
Tel: 253-404-3103 Fax: 253-404-3829 Email: hreed@pdza.org

Animal Information

Asian African ISIS# TOSMIC Studbook # _____
Name Bamboo Age: _____ actual estimate
Sex: male female

SAMPLE COLLECTION INFORMATION

Date of sample collection: April 04 Time of collection: _____
Site of sample collection: ear vein leg vein other: _____
Health status of animal: normal abnormal
Fasted: no yes -how long _____
Weight _____ actual estimated
Type of restraint: manual anesthetized/sedated behavioral control
Temperament of animal: calm active excited

Type of blood collection tube:

- no anticoagulant (red-top)
- EDTA (purple)
- heparin (green)
- other: Serum separator tube

Sample handling: separation of plasma/serum by centrifugation
(check all that apply) stored as whole blood
 frozen plasma/serum
 other - describe _____

TB EXPOSURE STATUS

- Known infected animal
- Known exposure to culture positive source within the past 12 months
- Known exposure to a culture positive source within the past 1-5 years
- No know exposure to a culture positive source in the last 5 years

TREATMENT INFORMATION

Is elephant currently receiving any medication or under treatment? yes no
If yes, please list drugs and doses: _____

Time between blood collection and last treatment: _____

Ship samples overnight frozen with shipping box marked "PLACE IN FREEZER UPON ARRIVAL"

Send completed form with samples to:
Dr. Michele Miller
Disney's Animal Kingdom-Dept. of Vet. Services
1200 N. Savannah Circle West
Bay Lake, FL 32830
(407) 939-7316; email: Michele.Miller@disney.com

U.S. DEPARTMENT OF AGRICULTURE
 ANIMAL AND PLANT HEALTH INSPECTION SERVICE
 NATIONAL VETERINARY SERVICES LABORATORIES
 P.O. BOX 844, 1800 DAYTON AVENUE
 AMES, IOWA 50010
 (515) 863-7212

INSTRUCTION: Use a separate request for each species and each owner/broker. See definitions (Item 12) and instructions for identification (Item 20).

PAGE
 OF

COPY

SPECIMEN SUBMISSION

1. NAME OF SUBMITTER (Last, First, MI) Point Defiance Zoo & Aquarium 3. NAME OF OWNER Point Defiance Zoo & Aquarium

MAILING ADDRESS (Street, City, State, Zip code.) 5400 N. Pearl Street Tacoma, WA 98407 CITY Tacoma STATE WA

Phone No. 253-404-3639 Fax No. 253-404-3827 COUNTY Pierce STATE WA

4. PAYMENT METHOD ("X" applicable item and provide information) EXP. DATE
 USER FEE ACCOUNT NO.: _____ MC/VISA NO.: _____
 CHECK/MONEY ORDER ENCLOSED (Made payable to "USDA" in U.S. Dollars)

5. HERD/FLOCK SIZE 3 8. EXAMINATIONS REQUESTED (Diseases and Test Procedures) Tuberculosis Culture 9. COLLECTED BY Craig Wilcox
 6. NO. IN HERD/FLOCK AFFECTED 0 10. DATE COLLECTED April 20 2006
 7. NO. IN HERD/FLOCK DEAD 0 11. AUTHORIZED BY _____

12. PURPOSE OF SUBMISSION ("X" one) 13. COUNTRY OF ORIGIN/DESTINATION
 General Diagnostic Surveillance/Monitor Import Interstate
 FAD/EP Diagnostic Developmental/Research Export Movement
 NVSL Intralab Diagnostic Reagent Evaluation TB
 14. REFERRAL NUMBER _____

15. PRESERVATION ("X" applicable item(s))
 None Ice Pack Dry Ice Formalin Borax Alcohol Other (specify) _____

16. SPECIMENS SUBMITTED ("X" applicable item(s)) 17. TOTAL NUMBER OF SPECIMENS SUBMITTED
 Blood Feces Parasite Serum Tissue Whole Bird Other (specify)
 Culture Feed Plant Soil Urine Fetus
 Extract Milk Semen Swab Water
3

18. SPECIES OR SOURCE ("X" one) 19. NUMBER OF ANIMALS SAMPLED
 Cattle Goat Environment Chicken Bison Deer Other (specify) Asian Elephant
 Swine Horse Reagent Turkey Dog Elk
 Sheep Donkey Pet Bird Cat Fish
3

20. IDENTIFICATION (see instructions)				IDENTIFICATION			
Sample ID	Animal ID/Breed	Age	Sex	Sample ID	Animal ID/Breed	Age	Sex
#1	A. Elephant "Jumbo" TOSMO	4yrs	F				
#2	A. Elephant "Saki" 96MO04	4yrs	F				
#3	A. Elephant "Haruko" 97MO24	4yrs	P				

21. ADDITIONAL DATA (History, clinical signs, post mortem findings, remarks, tentative diagnosis, etc. Use additional sheets if necessary.)

22. SIGNATURE OF SUBMITTER AND DATE SUBMITTED
Andy Wealdon 27 April 06
 NVSL USE ONLY
 CONDITION PRIORITY DISTRIBUTION RECEIVED BY
 NVSL ACCESSION NO.

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
NATIONAL VETERINARY SERVICES LABORATORIES
P.O. BOX 844, 1800 DAYTON AVENUE
AMES, IOWA 50010
(515) 653-7212

INSTRUCTION: Use a separate request for each species and each owner/broker. See definitions (Item 12) and instructions for identification (Item 20).

PAGE 1
OF 1

SPECIMEN SUBMISSION

1. NAME OF SUBMITTER (Last, First, MI)
Point Defiance Zoo & Aquarium

MAILING ADDRESS (Street, City, State, Zip code.)
5400 N. Pearl Street
Tacoma, WA 98407

Phone No. 253-404-3639 Fax No. 253-404-3827

3. NAME OF OWNER
Point Defiance Zoo & Aquarium

CITY Tacoma STATE WA

COUNTY Pierce STATE WA

3. LOCATION OF ANIMALS

4. PAYMENT METHOD ("X" applicable item and provide information)

USER FEE ACCOUNT NO.: _____ EXP. DATE _____

CHECK/MONEY ORDER ENCLOSED (Made payable to "USDA" in U.S. Dollars) MCVISA NO.: _____

5. HERD/FLOCK SIZE 5

6. NO. IN HERD/FLOCK AFFECTED 0

7. NO. IN HERD/FLOCK DEAD 0

8. EXAMINATIONS REQUESTED (Diseases and Test Procedures)
Tuberculosis Culture

9. COLLECTED BY
Craig Wilcox

10. DATE COLLECTED
April 19 2006

11. AUTHORIZED BY

12. PURPOSE OF SUBMISSION ("X" one)

General Diagnostic Surveillance/Monitor Import Interstate Movement

FAD/EP Diagnostic Developmental/Research Export

NVSL Intralab Diagnostic Reagent Evaluation TB

13. COUNTRY OF ORIGIN/DESTINATION

14. REFERRAL NUMBER

15. PRESERVATION ("X" applicable item(s))

None Ice Pack Dry Ice Formalin Borax Alcohol Other (specify)

16. SPECIMENS SUBMITTED ("X" applicable item(s))

Blood Feces Parasite Serum Tissue Whole Bird Other (specify)

Culture Feed Plant Soil Urine Fetus

Extract Milk Semen Swab Water

17. TOTAL NUMBER OF SPECIMENS SUBMITTED
1

18. SPECIES OR SOURCE ("X" one)

Cattle Goat Environment Chicken Bison Deer Other (specify) Asian elephant

Swine Horse Reagent Turkey Dog Elk

Sheep Donkey Pet Bird Cat Fish

19. NUMBER OF ANIMALS SAMPLED
1

20. IDENTIFICATION (see instructions)

Sample ID	Animal ID/Breed	Age	Sex	Sample ID	Animal ID/Breed	Age	Sex
<u>1</u>	<u>A. Elephant "Bambo" Tasmno</u>	<u>H040</u>	<u>F</u>				

21. ADDITIONAL DATA (History, clinical signs, post mortem findings, remarks, tentative diagnosis, etc. Use additional sheets if necessary.)

22. SIGNATURE OF SUBMITTER AND DATE SUBMITTED
Craig Wilcox 27 April 06

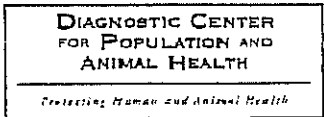
NVSL USE ONLY

CLASSIFICATION: _____ PRIORITY: _____ DISTRIBUTION: _____ RECEIVED BY: _____

SUPPLIES: Indicate Quantity

Single Tube Mailers 6 @ \$3.50 ea
 12 @ \$3.35 ea
 24 @ \$3.15 ea
 48 @ \$3.00 ea

Insulated Mailers (Cold Pack/Reusable Samples, no postage) \$5.50 ea



General Submission Form A revised 6/2005

DCPAH Use Only: In: _____

Case # _____

Rec'd _____

Contact Lab: (517) 353-1683 M-F 7:30am-5:30pm EST
 www.animalhealth.msu.edu

MICHIGAN STATE UNIVERSITY

PLEASE Fax Results Fax & Mail Results (\$3) Mail Results

CHECK HERE: Fax Number # (253) 404-3827

DCPAH Account # _____ Submitting Veterinarian _____

Clinic Name: Point Defiance Zoo & Aquarium

Address: 5400 N. Pearl Street

City: Tacoma State: WA Zip: 98407

Telephone: (253) 404-31639 Ext. _____

Owner Name _____

Animal Name/ID: A. Deohant MRAH Term 10
 (See reverse for multiple animal submissions)

Canine Feline Equine Other: Pschyderm

Breed: "Bumboo"

Age: 40yrs Day Wk. Mo. Yr. Weight _____

Sex: M F MC FS

Date Samples Taken: _____

Serum Plasma Urine Other _____

Office Use Only Ice No Ice

USS ___ SST ___ S ___ P ___ L ___ RB ___ G ___ U ___ SL ___ F ___ TS ___ SW Other: _____

Other Requests

Canine

Canine Vaccine Antibody Panel: (S)

All Lepto (LEPMA)

Distemper (CDV) Adeno (CAV) Parvo (CPV/H)

Tick-Borne Disease Antibody Screen: (S)

AI (TICK) Lyme (BGR) B. canis (BA3)

E. canis (EHRC) A. phagocytophilum (ANAPL)

R. rickettsii (RICK)

Canine Viral Enteric Screen PCR: (TS) (F)

AI Parvo (PCRCV) Corona (PCRCV)

Canine Viral Respiratory Screen PCR: (SW)

AI Distemper (PCCDV) Adeno (PCDNA)

Parainfluenza (PCRNA)

Ehrlichia Screen IFA: (EHRSC) (S)

(E. canis, A. phagocytophilum, R. rickettsii)

Canine Blood Donor Mini-Panel: (L) (S)

All (CBDSW) Leishmania Antibody (LESH)

Mycoplasma PCR (PCRH) Babesia PCR (PCBSA)

Canine Blood Donor Super Panel: (L) (S)

All (Mini-Panel +) (CBDSW) Ehrlichia sp PCR (PCARPE)

Ehrlichia canis Antibody (EHRC)

Feline

Feline Vaccine Antibody Panel: (S)

All (FVS) Panleukopenia (FPVHI)

Herpes (FVR) Calic (CAL)

Feline Viral Respiratory Screen PCR: (SW)

All Herpes (PCFHV)

Calic (PCFCV) Chlamydia (PCDNA)

Feline Blood Donor Panel: (L)

All (FBDW) Mycoplasma PCR (PCRH)

Bartonella PCR (PCRET)

Equine

Equine Viral Respiratory Screen PCR: (TS) (SW)

All Herpes, EHV (PCREH) Influenza, EIV (EIVPC)

West Nile Virus Antibody, Equine (S)

Vaccinated? Yes No Duration of Clinical Signs? _____

Sarcocystis neurona Antibody - EPM Washed Serum (WBS) CSF (WBCSF)

Avian

Avian Influenza AGID (AV) (S)

Mycoplasma Plate Agglutination (S)

All (MYPPA) M. gallisepticum (MGCS)

M. synchiae (MCS) M. meleagridis (MCA)

Newcastle Disease Virus ELISA (NDVEL) (S)

Ruminant

Bovine Viral Enteric Screen PCR:

All Rot (PCBRV) Corona

Bovine Viral Respiratory Screen PCR:

All BVD (PCBVD) BRSV (PCBRV)

IBR (PCBRV) PI3 (PCRNA)

Bovine Leukemia Virus eusa (BLV)

Bovine PI3 Virus Neutralization (PI3)

BVD Virus Neutralization (BVD)

BVD ELISA (ear notch) (BVDEE)

M. paratuberculosis - Johne's ELISA (MYPID)

M. paratuberculosis - Johne's rapid liquid culture
 Call lab for other options

M. paratuberculosis - Johne's positive fecal culture

Neospora caninum Antibody Titer (NSP)

IBR Virus Neutralization (IBR)

Nutrition

Selenium:

Serum (SESM) (S) Whole Blood (SEWB) (L)

Liver (SETS) (TS) Feed (SEFD) Other _____

Vitamin E:

Serum (VESM) (S) Feed (VEFD)

Liver (VETS) (TS) Other _____

Vitamin A:

Serum (VASM) (S) Feed (VAFD)

Liver (VATS) (TS) Other _____

Vitamin Profile, serum (VTP) (S)

NEFA, serum (NEFA) Lactation Stage Req. (S)

BHB, serum (BHB) Lactation Stage Req. (S)

Metabolic Profile, serum (DMPT) Lactation Stage Req. (S)

Lactation Stage: _____

Feed Analysis Standard Equine Hay (EHAY)

Fatty Acids (FAMES)

Serum (S) Liver (TS) Milk

Feed Other _____

Toxicology

Anticoagulants

Liver (ANCGT) (TS) Whole Blood (ANCG) (L)

Other _____

Lead, blood (BPB) (L)

Bromide (BROM) (S)

Convulsants: Regular (CNVL) Extended (ECNVL)

Chlorinated Pesticides Screen: (PEST)

Liver (TS) Brain (TS) Adipose Tissue (TS)

Serum (S) Other _____

GCMS Toxin Screen (TOXL)

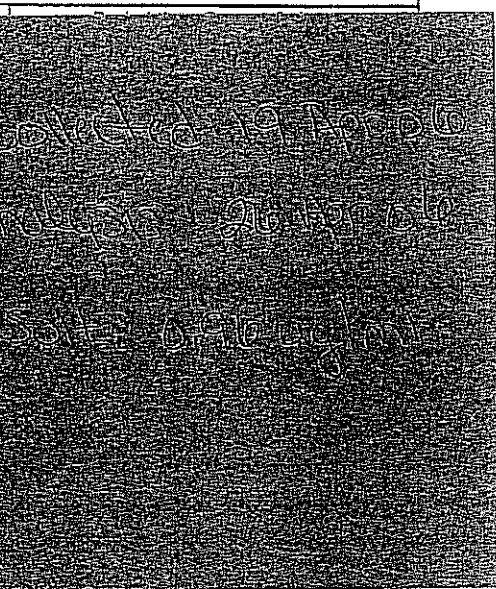
Mycotoxins (MYGL) Feed

Minerals

Liver (ICPT) (TS) Biopsy (ICPB) (TS) Feed (ICPF)

Serum (ICPS) (S) Other _____

Ionophores Feed



Leptospiral Antibody (list additional serovars) (S)

Leptospiral Fluorescent Antibody Test (LFA) (U)

Qualitative Fecal (QLFE) (F)

Mycoplasma PCR (L)

Canine (PCRH) Feline (PCRH)

Giardia Antigen (GIA) (F)

Cryptosporidium (CRY) (F)

Fungal Serology (S)

All (IMM) Histo (HIS) Blast (BLA)

Aspergillus (AS) Cocci/rod (COG)

Toxoplasma Titers (IgG and IgM) (TOXPL) (S)

Porcine Respiratory Antibody Screen: (S)

All PRRS (PRSEL) Influenza (EIV)

Porcine Viral Enteric Screen (PCR): (TS) (F)

All TGE (PCATG) Rot (PCPRV)

Virus Isolation (VI) Please specify Virus: _____

Viral Fluorescent Antibody Test (FA) Check with lab

Cytology, slide Specimen: _____

Biopsy (BIOP) Specimen: _____

Mark lesion location on reverse

SPECIMEN REQUIREMENTS:

SST SERUM SEPARATOR L LAVENDER U URINE SL SLIDE
 S SERUM RB ROYAL BLUE F FECS SW SWAB
 P PLASMA G GREEN TS TISSUE

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
NATIONAL VETERINARY SERVICES LABORATORIES
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AMES, IOWA 50010
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INSTRUCTION: Use a separate request for each species and each owner/broker. See definitions (Item 12) and instructions for identification (Item 20).

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COPY

SPECIMEN SUBMISSION

1. NAME OF SUBMITTER (Last, First, MI) Point Defiance Zoo & Aquarium
MAILING ADDRESS (Street, City, State, Zip Code.)
5400 N. Pearl Street
Tacoma, WA 98407

2. NAME OF OWNER Point Defiance Zoo & Aquarium
CITY Tacoma STATE WA
3. LOCATION OF ANIMALS
COUNTY Pierce STATE WA

Phone No. 253-404-3639 Fax No. 253-404-8827

4. PAYMENT METHOD ("X" applicable item and provide information)
 USER FEE ACCOUNT NO.: _____ MCVISA NO.: _____ EXP. DATE _____
 CHECK/MONEY ORDER ENCLOSED (Made payable to "USDA" in U.S. Dollars)

5. HERD/FLOCK SIZE 3
6. NO. IN HERD/FLOCK AFFECTED 0
7. NO. IN HERD/FLOCK DEAD 0
8. EXAMINATIONS REQUESTED (Diseases and Test Procedures)
Tuberculosis Culture

9. COLLECTED BY Craig Wilcox
10. DATE COLLECTED April 18, 2006
11. AUTHORIZED BY _____

12. PURPOSE OF SUBMISSION ("X" one)
 General Diagnostic Surveillance/Monitor Import Interstate Movement
 FAD/EP Diagnostic Developmental/Research Export TB
 NVSL Intralab Diagnostic Reagent Evaluation

13. COUNTRY OF ORIGIN/DESTINATION _____
14. REFERRAL NUMBER _____

15. PRESERVATION ("X" applicable item(s))
 None Ice Pack Dry Ice Formalin Borax Alcohol Other (specify) _____

16. SPECIMENS SUBMITTED ("X" applicable item(s))
 Blood Feces Parasite Serum Tissue Whole Bird Other (specify) _____
 Culture Feed Plant Soil Urine Fetus
 Extract Milk Semen Swab Water

17. TOTAL NUMBER OF SPECIMENS SUBMITTED 3

18. SPECIES OR SOURCE ("X" one)
 Cattle Goat Environment Chicken Bison Deer Other (specify) Asian Elephant
 Swine Horse Reagent Turkey Dog Elk
 Sheep Donkey Pet Bird Cat Fish

19. NUMBER OF ANIMALS SAMPLED 3

20. IDENTIFICATION (see Instructions)

IDENTIFICATION				IDENTIFICATION			
Sample ID	Animal ID/Breed	Age	Sex	Sample ID	Animal ID/Breed	Age	Sex
#1	A. Elephant "Bambos" Tasmia	40yrs	F				
#2	A. Elephant "Suki" 96m004	40yrs	F				
#3	A. Elephant "Haruko" 97m024	41yrs	F				

21. ADDITIONAL DATA (History, clinical signs, post mortem findings, remarks, tentative diagnosis, etc. Use additional sheets if necessary.)

22. SIGNATURE OF SUBMITTER AND DATE SUBMITTED
Amy Wood DVM 27 April 06

NVSL USE ONLY
CONDITION PRIORITY DISTRIBUTION RECEIVED BY NVSL ACCESSION NO.

National Veterinary Services Laboratories
1800 Dayton Road Ames, Iowa 50010
Phone (515) 663-7266 Fax (515) 663-7397
Tuberculosis Laboratory Test Report Page 1 of 1

FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish)
1-800-877-8339

Accession: 435100

Date Received: 4/28/2006

Establishment No.: WAPOINI
POINT DEFIANCE ZOO & AQUARIUM
5400 N. PEARL ST.

Referral Number:
Owner: POINT DEFIANCE ZOO & AQUARIUM
City: TACOMA
State: WA

TACOMA, WA 98407
Fax: 2534043827

Preservation:

Retain Tag:

Species: Elephant

NVSL ID	Case #	Sample ID	Animal ID
1460505	0606438	1 4/18	BAMBOO TOSM10 Specimen Submitted <u>TRUNK WASH</u>

Mycobacteria Isolation
Diagnosis: No Isolation Made

1460506	0606439	1 4/19	BAMBOO TOSM10 Specimen Submitted <u>TRUNK WASH</u>
---------	---------	--------	--

Mycobacteria Isolation
Diagnosis: No Isolation Made

1460507	0606440	1 4/20	BAMBOO TOSM10 Specimen Submitted <u>TRUNK WASH</u>
---------	---------	--------	--

Mycobacteria Isolation
Diagnosis: No Isolation Made

DISTRIBUTION:
Submitter
6/29/2006

Approved By: Randy T. Capsel
National Veterinary Services Laboratories

COPY
MK
KMM
AE
COPY
to WPZ
5 Sep 06
AKS

PLEASE
SEND
BAMBOO'S
RESULT
TO
WPZ

Clinical Pathology Records - Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

=====

Sex: Female Acc. #: T05M10
Age: 41Y Est: Birth: 1.Nov.1966

=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3760 Kg on 5.Nov.2003
Manual restraint used.

Date of Collection: 19.Apr.2006
Time of Collection: : 0.3
Collected by: SS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Frozen at 0.0C (32.0F)
Sample Quality: No quality problems.

Laboratory: NAT'L ZOO
Date of Analysis: 25.Apr.2006
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

EEHV (ELEPHANT ENDOTHEKIOTROPIC HERPESVIRUS) LOW

Comments >>

Elephant Endotheliotropic Herpesvirus (EEHV) ELISA titer Low

EEHV titer perormed by:
National Zoological Park
Department of Pathology
3001 Connecticut Ave., NW
Washington DC 20008
202-633-4252

Clinical Pathology Records - Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

- page 2 -
COPY

=====

LEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

=====

Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966

=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3760 Kg on 5.Nov.2003
Manual restraint used.

Date of Collection: 19.Apr.2006
Time of Collection: : 0.2
Collected by: SS
Sample Collection Site: EAR VEIN

Comments >>

TB MAPIA result RT negative

Test performed by:
Disney Animal Kingdom
Dr. Michele Miller

Clinical Pathology Records - Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

COPY

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3760 Kg on 5.Nov.2003
Manual restraint used.

Date of Collection: 19.Apr.2006
Time of Collection: : 0.1
Collected by: SS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Frozen at -17.8C (0.0F)
Sample Quality: No quality problems.

Laboratory: MICHIGAN ST U
Date of Analysis: 26.Apr.2006
Time of Analysis:
Analysis by:
Manual analysis.

Tests and Results >>

VITAMIN E 0.96 UG/ML

Comments >>

Vitamin E serum rest performed by:
Michigan State University
517-353-1683

Vit E serum interpretation:

We've measure serum vitamin E in several hundred elephants of unknown nutritional background. The median concentration is about 1 ug/ml with a range from the 25th to 75th percentile of 0.75 to 1.3 ug/ml.

Parasitology Records Report - Individual Specimen
POINT DEFIANCE ZOO & AQUARIUM

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

Submission Data >>
Type: Fecal sample
Purpose: PRESHIPMENT EXAMINATION

Sample id.: 2006-0110
Date collected: 19.Apr.2006

Collected from:
From an individual specimen.

Enclosure: SEA

Examination Data >>
Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 19.Apr.2006

Tests & Results >>
003110
003200
003290

Submission Data >>
Type: Fecal sample
Purpose: PRESHIPMENT EXAMINATION

Sample id.: 2006-0109
Date collected: 26.Apr.2006

Collected from:
From an individual specimen.

Enclosure: SEA

Examination Data >>
Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 27.Apr.2006

Tests & Results >>
003670

Clinical Pathology Records - Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

COPY

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3760 Kg on 5.Nov.2003
Manual restraint used.

Date of Collection: 19.Apr.2006
Time of Collection:
Collected by: SS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Refrigerated (<48 hours)
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 20.Apr.2006
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

			Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	79	91±	21	33	223	(1257)
BUN	MG/DL	15	13±	4	4	30	(1260)
CREAT.	MG/DL	1.6	1.6±	0.4	0.7	3.3	(1230)
BUN/Cr ratio		9.38					
	MG/DL	10.0	10.6±	0.8	7.8	14.8	(1184)
PHOS	MG/DL	< 3.1	5.0±	1.2	1.9	11.1	(724)
Ca/P ratio		3.23					
NA	MEQ/L	134	130±	6	99	181	(859)
K	MEQ/L	4.4	4.6±	0.5	3.2	6.6	(861)
Na/K ratio		30.5					
CL	MEQ/L	90	89±	4	77	103	(731)
anion gap		24.4					
MG	MG/DL	2.2	2.10±	0.53	0.00	2.90	(68)
CHOL	MG/DL	38	48±	19	0	189	(599)
T.PROT. (C)	GM/DL	8.2	8.1±	0.8	5.8	11.3	(1227)
ALBUMIN (C)	GM/DL	3.2	3.2±	0.5	1.9	4.7	(648)
GLOBULIN (C)	GM/DL	5.0	5.0±	1.0	2.7	8.6	(639)
Alb/Glob rat		0.640					
AST (SGOT)	IU/L	28	22±	11	4	97	(1227)
T. BILI.	MG/DL	0.1	0.2±	0.2	0.0	1.2	(765)
ALK.PHOS.	IU/L	< 73	143±	66	28	641	(1157)
CPK	IU/L	150	225±	170	23	1260	(486)
A/G RATIO	GM/DL	0.6					
anion gap		20					
CO2	MMOL/L	24	24.8±	4.0	15.8	37.0	(230)
GGT	IU/L	2	7±	5	0	33	(314)
OSMOLALITY	MOSMOL/KG	267					
sodium potas		30					

ISIS reference values are for ELEPHAS MAXIMUS

Printed on: 4.Nov.2007

/ISIS/MedARKS/5.53

Clinical Pathology Records - Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

COPY

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 3760 Kg on 5.Nov.2003
Manual restraint used.

Date of Collection: 19.Apr.2006
Time of Collection:
Collected by: SS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Refrigerated (<48 hours)
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 20.Apr.2006
Time of Analysis:
Analysis by:
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	11.0		14.43±	4.409	5.800	33.30	(1779)
RBC	*10 ⁶ /UL	3.42		3.06±	0.51	1.78	5.15	(1501)
HGB	GM/DL	13.7		13.2±	2.2	6.6	24.9	(1568)
HCT	%	37.2		37.1±	6.0	20.3	68.0	(1890)
HV	fL	109		122.3±	13.4	47.1	213.2	(1491)
MCH	uug	40.1		43.3±	4.8	16.6	63.2	(1464)
MCHC	gm/dL	36.8		35.4±	3.6	16.9	68.6	(1536)
SEGS	% (*10 ³ /UL)	26.00	(2.860)	4.822±	2.925	0.291	23.90	(1502)
LYMPHOCYTES	% (*10 ³ /UL)	22.00	(2.420)	5.243±	3.223	0.196	20.60	(1513)
MONOCYTES.	% (*10 ³ /UL)	52.00	(5.720)	3.677±	2.909	0.000	9.983	(1273)
PLATE. EST.	ADEQ							
PLATE. CNT.	*10 ³ /UL	459		469±	215	121	1394	(428)
mch	PG	40.0		43.3±	4.8	16.6	63.2	(1464)
mchc	%	36.8		35.4±	3.6	16.9	68.6	(1536)
mcv	FL	109		122.3±	13.4	47.1	213.2	(1491)

Comments >>

RBC morphology normal

TO: Elephant Barn Staff

FROM: Holly Reed, DVM

DATE: 18 April 2006

SUBJECT: SAMPLE COLLECTION SCHEDULE FOR BAMBOO

The following samples will need to be collected for Bamboo's preshipment requirements:

1. Trunk Washes
 - a. Three samples — can be collected on consecutive days
 - b. The samples must be frozen immediately after collection
 - c. Deliver to Julie the day of collection.
 - d. Julie will arrange to send them off all together (just Bamboo's) on dry ice by overnight express to National Veterinary Services Lab. Request mycobacterial culture with speciation (using VS form 10-4)
2. Blood has to be taken in the same week that the trunk washes are collected.

TEST	LAVENDER	TIGER
RT/MAP/IA(Disney)		2
EEHV		2
CBC	2	
Chemistry		1
Vit E levels		2
Disney Serum Bank		10
TOTAL	2 ml = 1 lavender topped tube	17 ml serum = 51 ml whole blood = 13 tiger topped tubes

✓ April 19, 2006
SS/CAW/Chuck
WAZ

3. Fecal Exam — direct, floatation, and sedimentation collected every 7 days for three weeks. This needs to be coordinated with Julie's schedule and can be done in-house or sent out to Phoenix Lab.

Wed April 19	Wed April 26	Wed May 3	Wed May 10	Wed May 17
SS/CAW	SS/CAW	AD/CAW	AD/CAW	AD/CAW

per Dr. H

4. Fecal Cultures — collect one each day for three days. Collect by finding the freshest fecal ball, crack open with gloved hands and insert culturette swab. Julie, please request that the culture include salmonella testing and that the swab be placed in salmonella enhancement broth.

Wed April 19	Thurs April 20	Fri April 21
SS/CAW	SS/AG	SS/AD

5. Arrange to vaccinate all elephants with tetanus toxoid (1ml IM) administered after blood work taken.

Woodland Park Zoo Preshipment Testing

60707

Date: 27 March 2006

ZAT#: M-2302

Number (e.g., 2.1.0) 0.1

Species: Asian Elephant *Elephas maximus*

From: Point Defiance Zoo & Aquarium

The following information is expected to accompany shipments to WPZ. If checked, please send copies *in advance* to: Darin.Collins@Zoo.Org.

X Medical Records

X Complete animal history

Required permits

Health Certificate

Diet & Housing information

Other:

The following tests are required by WPZ. All birds, mammals and reptiles entering Washington State must also have a Washington State Department of Agriculture import permit number, obtained by calling (360) 902-1878. Please add this number to the health certificate.

See attached page 2: RECOMMENDED ELEPHANT PRESHIPMENT GUIDELINES

Darin Collins, DVM, Senior Veterinarian darin.collins@zoo.org
(206) 684-4889

Kelly Helmick, DVM, Associate Veterinarian kelly.helmick@zoo.org
(206) 684-5207

Animal Health Department
Woodland Park Zoo
601 N 59th St.
Seattle, WA 98103
(206) 684-4865
FAX(206) 684-4873



WOODLAND PARK ZOO

Haw

3:30 pm

For additional information: refer to the Elephant Husbandry Manual, AZA Standards for Elephant Management and Care, and the AAZV Preventive Medicine Recommendations.

RECOMMENDED ELEPHANT PRESHIPMENT GUIDELINES

February 2003

Whenever possible, preshipment testing should be performed within 30-90 days of the anticipated shipping date (note: mycobacterial cultures require 60 days for final results).

Minimum Database:

1. Signalment - age, sex, origin, studbook#, ISIS#; picture of individual (as viewed from the front and sides) should be included in the permanent record.

2. Anamnesis - summary of information regarding previous health screens, medical problems, diagnostic test results, and treatment. In addition, the veterinarian should review the behavioral profile of the individual to be shipped.

Specific areas to be included:

- a. foot/skin conditions
- b. dental/tusk conditions
- c. history of colic, diarrhea, GI parasitism (including fecal parasite screens and Salmonella cultures)
- d. serologic status, if known (EMC, elephant herpesvirus, Leptospirosis)
- e. vitamin E status, if known
- f. TB culture from trunk washes (dates and results)
- g. reproductive history
- h. sedation/immobilization data

3. Complete physical exam - this should include a review of all systems.

4. Body weight – actual or estimated using body measurements.

5. Blood collection

- a. Complete blood count (CBC), serum chemistry panel. *2ml serum*
- b. Serologic (ELISA) test for elephant herpesvirus (EEHV) – contact Dr. Laura Richman.
- c. Bank minimum of 10-20 ml serum (duplicate sample for SSP serum bank) – all banked samples should be labeled with species, studbook #, age, sex, and date collected.

6. Fecal analyses -

- a. **Parasite screen** - Fecal samples should be collected every 7 days for a total of 3 weeks; direct, flotation, and sedimentation should be performed on every sample to detect intestinal parasitism.

- b. **Enteric pathogen screen** - Aerobic culture of feces for enteric pathogens
 - should include special media for the detection of *Salmonella spp.* Since
 - Salmonella* organisms may be shed intermittently, at least 3-5 fecal cultures
 - should be performed (may be done on consecutive days).
- c. **Contact receiving institution with any abnormal results and treatments.**

7. **TB culture** - refer to the current USDA Guidelines for the Control of Tuberculosis in Elephants (2). Protocol can be accessed on the USDA website www.aphis.usda.gov/ac/ElephTBGuidelines2003.html. At this time, annual trunk wash cultures are the only required test, however collection of other samples for research is strongly encouraged.

- a. Samples for cultures must be collected under the direct supervision of a licensed veterinarian.
- b. Three trunk wash samples should be collected on separate days, ideally within a 7 day period. Trunk swabs are no longer acceptable.
- c. All samples should be frozen immediately after collection and shipped frozen.
- d. Ship by overnight express to NVSL (or other laboratory facility offering comparable procedures). Request mycobacterial culture with speciation (use VS Form 10-4 submission form for NVSL).

8. **Vaccinations**

- a. **Tetanus toxoid** *- current vaccination (within 12 months) with a commercial equine product is recommended. Follow label instructions for product use (usually 1 ml IM). Data are insufficient at this time to determine adequate protective vaccine doses and titers.

Additional Preventive Health Recommendations:

1. **PCR test for elephant herpesvirus** - contact Dr. Laura Richman. Laura Richman 301-398-4741 (W) 301-253-8723 (H) RichmanL@MedImmune.com or richmanl@comcast.net

2. **Serum vitamin E levels** - submit ~~heparinized plasma~~ **2.0 ml serum Dry Ice** to Michigan State University.

3. **Urinalysis** - fluid and sediment evaluation of clean voided sample; +/- microbial culture. **517-353-0621 1.2 ml serum**

4. **Foot radiographs** - baseline radiographs of all feet are strongly recommended (send copies of radiographs to receiving institution); see Gage for description of technique (11).

5. **Ancillary diagnostic tests for tuberculosis** - ELISA, etc. recommended for data gathering; see Guidelines for the Control of Tuberculosis in Elephants for current recommendations (2).

6. **Psyllium (equine dose)** - administered daily 1-week prior to shipment.

7. **Watering with electrolyte in water (if palatable)** - 24-48hr prior to shipment.

no WNV

what else

2ml

□ **8. ELISA, Rapid Test (RT), MAPIA (Multi-Antigen Print Immunoassay) -**
immunoblot detect antibodies in elephant sera to mycobacterial antigens; therefore, they
provide indirect evidence of infection or exposure. Data presented suggest that these
assays may be used to detect seropositive elephants *months to years* before a trunk wash

Send completed form with samples to:

Dr. Michele Miller

Disney's Animal Kingdom-Dept. of Vet. Services

1200 N. Savannah Circle East

Bay Lake, FL 32830-1000

ATTN: Vet Services Laboratory

(407) 939-7316; email: Michele.Miller@disney.com

2/20/03 mm

MEDICAL TREATMENT INSTRUCTIONS AND COMPLIANCE RECORD
POINT DEFIANCE ZOO & AQUARIUM

Animal Identification:

Scientific Name: *ELEPHAS MAXIMUS* (no subsp)
Common Name: Asiatic elephant
Name: BAMBOO

Enclosure:

Accession #: T05M10
Female

Birth: 1.Nov.1966 (Estimated)

Purpose: ABCESS - right hip region (Confirmed)

Drug: UNPASTEURIZED HONEY

Treatment Instructions:

Prescribed by: ALC

Flush abscess tract with dilute nolvasan and attempt to express exudate. Repeat several times. Finally, instill UNPASTEURIZED HONEY into tract using syringe. Treat twice a day for 5 days. Start treatment on 24.Feb.2006.

Treatment weight: 3760 kg

Dispensing Note: Dispense 10 doses.

Date d d / m m / y y	Time	Success (0 - 100%)	Given by (initials)	Comments
24 / 02 / 06	0900	100 %	Dr. All.	
25 / 02 / 06	0900	100 %	SS	
26 / 02 / 06	0915	100 %	AD	quite a bit of pus
27 / 02 / 06	0930	100 %	AD	1/3 of yesterday amt
		%		
1 / 03 / 06	0830	100 %	SS	quite a bit from top hole - minimal from bottom.
		%		
		%		
		%		
		%		

CONTINUING w/ NEW RX 2nd mar 06

Clinical Pathology Records - Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: T05M10
Asiatic elephant                     Age: 41Y Est.        Birth: 1.Nov.1966
Name: BAMBOO
=====
  
```

Collection Information >>

```

Health Status: Normal                Date of Collection: 21.Jan.2006
Fasting Time: < 8 hours              Time of Collection: 8:30.0
Activity: Active                      Collected by: SS
Weight: 3760 Kg on 5.Nov.2003        Sample Collection Site: EAR VEIN
Manual restraint used.
  
```

Chemistry >>

```

Analysis Information >>
Chemistry Sample: Serum              Laboratory: PHOENIX
Storage: Refrigerated (<48 hours)   Date of Analysis: 22.Jan.2006
Sample Quality: No quality problems.  Time of Analysis:
                                        Analysis by:
                                        Automated analysis.
  
```

Tests and Results >>

ISIS Reference Values >>

			Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	76	91±	21	33	223	(1257)
BUN	MG/DL	>> 22	13±	4	4	30	(1260)
CREAT.	MG/DL	1.7	1.6±	0.4	0.7	3.3	(1230)
BUN/Cr ratio		12.9					
CA	MG/DL	11.0	10.6±	0.8	7.8	14.8	(1184)
PHOS	MG/DL	< 2.8	5.0±	1.2	1.9	11.1	(724)
Ca/P ratio		3.93					
NA	MEQ/L	132	130±	6	99	181	(859)
K	MEQ/L	4.6	4.6±	0.5	3.2	6.6	(861)
Na/K ratio		28.7					
CL	MEQ/L	93	89±	4	77	103	(731)
anion gap		23.6					
CHOL	MG/DL	39	48±	19	0	189	(599)
T.PROT. (C)	GM/DL	> 9.1	8.1±	0.8	5.8	11.3	(1227)
ALBUMIN (C)	GM/DL	3.4	3.2±	0.5	1.9	4.7	(648)
GLOBULIN (C)	GM/DL	5.7	5.0±	1.0	2.7	8.6	(639)
Alb/Glob' rat		0.596					
AST (SGOT)	IU/L	30	22±	11	4	97	(1227)
ALT (SGPT)	IU/L	11	7±	8	0	72	(781)
T. BILI.	MG/DL	0.1	0.2±	0.2	0.0	1.2	(765)
ALK. PHOS.	IU/L	< 66	143±	66	28	641	(1157)
A/G RATIO	GM/DL	0.6					
anion gap		19					
CO2	MMOL/L	< 20	24.8±	4.0	15.8	37.0	(230)
GGT	IU/L	< 0	7±	5	0	33	(314)
OSMOLALITY	MOSMOL/KG	266					
sodium potas		29					

COPY

SUBMISSION DATA:

Type of samples:

- 1. Fecal sample
- 2. Rectal swab
- 3. Skin scraping
- 4. Ear swab or wash
- 5. Oral swab or wash
- 6. Nasal swab or wash
- 7. Trachea & wash/sample
- 8. Gastric wash/sample
- 9. Intestinal wash/sample
- A. Blood sample
- B. Urine sample
- C. Tissue or organ
- D. Whole or partial parasite
- E. Other _____
- F. Unknown

Date collected: 31 / 10 / 05
d d m m y y

Time collected: ~~8:30~~ 1:15

Collected by: AD

Purpose of examination:

- 1. Routine or scheduled
- 2. Quarantine #1 #2 #3 X
- 3. Follow-up or recheck
- 4. Shipping or pre-shipment
- 5. Diagnostic (problem or illness)
- 6. Post-mortem
- 7. Other _____

Gross appearance:

- 1. Typical
- 2. Atypical

Genus/species: _____

or

Common name: Elephant

Accession number(s): T05 m10

Bamboo

Enclosure: SEA / Elephant Barn

▼ ▼ ▼ For Laboratory Use Only ▼ ▼ ▼ (below this line)

EXAMINATION DATA:

Date examined: 31 / 10 / 05
d d m m y y

Time examined: 12:58

Examination by: JCV

Storage conditions:

- 1. Room/ambient temperature
- 2. Refrigerated
- 3. Frozen
- 4. Formalin
- 5. Alcohol
- 6. Merthiolate-Iodine-formalin
- 7. Polyvinyl alcohol
- 8. Other _____

Consistency of stool:

- 1. Liquid or watery
- 2. Soft
- 3. Formed
- 4. Hard or dry

Unusual Characteristics

- 1. Fresh Blood
- 2. Excessive mucus
- 3. melena or tarry
- 4. Foamy
- 5. Adult/ larval form

Description: _____

Resubmit sample: Yes No

TESTS AND RESULTS:

Test performed codes:

Quantity code:

- B) Baermann Sedimentation
 - C) Centrifugation methods
 - D) Direct microscopic
 - F) Flotation - Na nitrate
 - G) Gross macroscopic
 - S) Stained
 - M) McMaster
 - O) Occult blood
 - Q) Quantitative count
 - X) Knotts
 - T) Titers / serology
 - U) Other
- 1) Sedimentation

TEST PERFORMED

RESULTS

QUANTITY

F

NPS

Comments: _____

Parasitology Records Report - Individual Specimen
POINT DEFIANCE ZOO & AQUARIUM

COPY

Scientific Name: *ELEPHAS MAXIMUS* (no subsp) Not accessioned
Common Name: Asiatic elephant Female
Identification: BAMBOO Birth: 18.Oct.1966 (Estimated)

Submission Data >>

Type: Fecal sample
Purpose: QUARANTINE EXAM #2

Sample id.: 2005-0343
Date collected: 23.Oct.2005
Time collected: 11:00
Collected by: CAW

Collected from:

From an individual specimen.

Enclosure: SEA

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 23.Oct.2005
at: 13:40
by: JCL

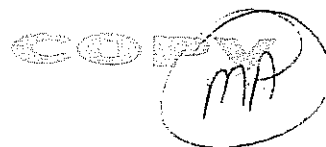
Tests & Results >>

FLOATATION - NA NITRATE

NO PARASITES SEEN

Phoenix Central Laboratory
: 10 AIRPORT RD, SUITE 100
EVERETT, WA 98204-3742
(800)347-0043
(425)355-5252

PAGE: 1



POINT DEFIANCE ZOO
FAX 1-253-404-3827
5400 W PEARL ST
TACOMA WA
98047 (253)591-5337

PATIENT: A ELEPHANT, BAMBOO-T05M10
AGE: SEX: SP: X SAMPLE ID: 51018720
BREED: A ELEPHANT DRWN: 10/18/05
NEUTERED: RCVD: 10/19/05
PRNT: 10/19/05

** COMPLETE REPORT **

ATTENDING DVM: REED

TEST NAME	NORMAL	OUT OF RANGE	UNITS	REFERENCE RANGE
Giardia/Cryptosporid (IFA)	Negative			

End of Report

=====
Parasitology Records Report - Individual Specimen
POINT DEFIANCE ZOO & AQUARIUM
=====

=====
Scientific Name: *ELEPHAS MAXIMUS* (no subsp) Not accessioned
Common Name: Asiatic elephant Female
Identification: BAMBOO Birth: 18.Oct.1966 (Estimated)
=====

Submission Data >>

Type: Fecal sample
Purpose: QUARANTINE EXAM #1

Sample id.: 2005-0338
Date collected: 18.Oct.2005
Time collected: 11:30
Collected by: ALD

Collected from:

From an individual specimen.

Enclosure: SEA

Examination Data >>

Storage: refrigerated
Consistency: formed
Gross appearance: Typical

Date examined: 18.Oct.2005
at: 14:10
by: JCL

Tests & Results >>

FLOATATION - NA NITRATE
GIARDIA (IFA)

NO PARASITES SEEN
NO PARASITES SEEN

Holly Reed

From: Darin Collins [Darin.Collins@Zoo.org]
Sent: Thursday, October 06, 2005 10:49 AM
To: Bruce Upchurch
Cc: Nancy Hawkes; Bruce Bohmke; Kelly Helmick; Farshid Mehrdadfar; Bret Sellers; hreed@pdza.org; L Animal Health
Subject: FW: Elephant serum results

Bruce

Results here from Dr. Miller in regards to samples submitted for her elephant TB study. Dr. Miller includes here a short interpretation of the testing performed. Bamboo is negative for TB, which is consistent with her trunk wash samples. I'm double-checking if we sent Dr. Miller more samples than just Bamboo. Our plan would be to continue to support this study and submit annual samples on Chai, Hansa and Watoto. I am cc'ing Dr. Holly Reed at Point Defiance Zoo & Aquarium to these results, as well.

Darin

Teri: Please record these results in Bamboo's clinical notes - thanks.

-----Original Message-----

From: Miller, Michele [mailto:Michele.Miller@disney.com]
Sent: Thursday, October 06, 2005 9:56 AM
To: Darin Collins
Subject: Elephant serum results

Hi Darin,

Hope you are doing well and planning to come to Omaha. I wanted to thank you and your tech, Teri, for sending serum samples from your elephant "Bamboo" to the serum bank and for part of the TB serology study. I wanted to share the results with you.

I've included a copy of the Elephant TB Workshop notes that has more information in case you are interested, but a short version is included here. The RT (Rapid Test) is a screening test in which multiple mycobacterial antigens are combined on the membrane to which any antibodies (both IgG and IgM) will bind and give a positive result. Therefore, one explanation for a result in which an elephant is RT positive but MAPIA negative could be an "early" response (IgM only) which is being picked up by RT and not MAPIA. MAPIA is a multi-antigen membrane test in which the antigens are spread out but only detects binding by IgG in the sera to specific proteins. These antigens are very specific for the M. tb complex group, so it has picked up both M. tb and M. bovis but not M. avium infected elephants. Something that is important that came out of the workshop, is that there have been a number of elephants that have NEVER been culture positive but have been sero-positive that have gone on to be culture positive/TB positive at necropsy. This has also been true in people and up to 1/3 of cases in people (according to the CDC) are never smear or culture positive but respond to treatment (treated based on clinical signs and radiographic findings).

So what does that mean to you? Since this test is so new, we have been doing retrospective studies on infected elephants to validate the test and found excellent specificity and sensitivity. We don't know of any seropositive animals at this time that haven't been infected, because there haven't been enough live animals tested that have gone to necropsy to prove it. However, he has used it in a clinically applicable situation in Europe in which elephants were euthanized based on the serologic results ONLY and found to be positive at necropsy, even though they had been trunk wash negative.

The results from your elephants show that **Bamboo is RT negative, MAPIA negative**. I know that we would be happy to continue to provide serologic screening on an annual basis.

Thanks again,

Michele

COPY

MEDICAL TREATMENT INSTRUCTIONS AND COMPLIANCE RECORD
POINT DEFIANCE ZOO & AQUARIUM

Animal Identification:
Scientific Name: *ELEPHAS* (unk sp)
Common Name: Asiatic elephant
Identification: BAMBOO

Enclosure:
Not accessioned
Female
Birth: 4.Nov.1966

Purpose: Ease passage of GI contents, prevent colic

Drug: PSYLLIUM HYDROPHILIC MUCILLOID

Treatment Instructions: Prescribed by: HHR
Feed 32 oz (8 of the scoops that come with the bucket of psyllium) of PSYLLIUM HYDROPHILIC MUCILLOID, once a day for 14 days.
Start treatment on 26.Aug.2005.

Dispensing Note: Dispense 14 doses. Each dose: 32 oz. Total to dispense: 448 oz of feed premix.

Date d d / m m / y y	Time	Success (0 - 100%)	Given by (initials)	Comments
30/08/05	1700	100 %	CAW	Good
31/08/05	1700	100 %	CAW	"
1/09/05	1645	100 %	SS	"
2/09/05	1600	100 %	CAW	"
3/09/05	1600	100 %	CAW/AB	"
4/09/05	1630	100 %	CAW	"
5/09/05	1615	100 %	CAW	"
6/09/05	1630	100 %	CAW	"
7/9/05	1530	100 %	SP	"
8/9/05	1630	100 %	SP	"
9/9/05	1530	100 %	SP	"
9-10-05	15:30	100 %	CAW	"
9/11/05	16:20	100 %	CAW	"
9/12/05	1600	100 %	CAW	"
9/13/05	1615	100	CAW	"

32oz daily for 14 days
30 Aug 13 Sept 2005

Holly Reed

From: Patrick Maluy [Patrick.Maluy@zoo.org]
Sent: Thursday, July 21, 2005 4:45 PM
To: hreed@pdza.org
Cc: Kelly Helmick; Darin Collins; Bruce Upchurch; Russ Roach; Charles Harke; Steve Cremer; Pat Owen; Ken Morgan
Subject: FW: bamboo shipment questions from dr. reed

COPY

Hi Holly, long time!

Per a request from Darin and Kelly, concerning Bamboo's transfer to PDZA, I can provide a bit more information.

Bamboo is being pre-trained to accept restraint for shipment at the area designated for the load in the south paddock. Due to the fact that we are using a tractor-trailer, we will not be able to do any pre-training to load in a trailer. Fortunately, she does have some previous crate training experience from several years ago with the crate we used for Chai's breeding loan to Dickerson Park Zoo.

As far as behavioral issues are concerned, she doesn't have any really, unless you consider her aggressive history toward some keepers and trainers. The other potential issue may be her extreme intelligence and "mechanically inclined" brain for lack of a non-anthropomorphic term. This could potentially present some problems cause she's so darn smart!

I think all involved are in agreement that we would prefer not to use any sedatives for the transfer unless necessary.

The only other thing I can add is although Bamboo doesn't have any experience with introductions to other adult elephants, she has been subordinate to Watoto, our African and shows all the correct submissive behavior when they have been together. She also has been very good with novel situations, has been used for shows, taken on walks on grounds routinely and is a very solid animal behaviorally. She has a long and varied life experience with many new and novel conditions such as being housed with river hippos, temporarily housed in our bear grotto area, moved from her original "baby elephant" exhibit in the farm, then to the old elephant barn circa 1920 and finally to this exhibit which opened in 1989. Finally, although it was a long road and introduction process, she did eventually accept our newest addition, Hansa.

If you have any other questions or concerns, please contact Kelly, Darin or myself.

See you soon!

Pat

Bamboo Arrival
Agenda

- I. Transport
 - a. Date- Time
 - b. Logistics
 - i. Woodland Park – Bruce Upchurch
 - ii. PDZA – Craig/Scott
- II. Arrival at PDZA
 - a. Park closure
 - i. Cooperation with MPT, TPD
 - ii. Barricades at upper parking lot
 - iii. Removal of barricades
- III. Security
 - a. Support staff
 - i. Elephant handling – KGB/Craig – Asia Staff
 - ii. LRT – Stan
 - iii. Operations support – Scott,
 - iv. Perimeter crew – John H, John R, Will, Kathleen, Bob T, Carla, Jean, Carolyn, Bryna, Donna
 - v. Overnight security – KGB/Stan
 - vi. TPD – Captain Miller
- IV. Media – Jean, Carolyn ~~Vet Staff~~ Holly / Anna
- V. Next day
 - a. Crowd/protester issues
 - i. Weekend coverage
 - b. Education - Carla

copy

Holly Reed

From: Darin Collins [Darin.Collins@Zoo.org]
Sent: Wednesday, July 20, 2005 5:47 PM
To: Holly Reed
Cc: Kelly Helmick
Subject: RE: bamboo shipment

Hi Holly:

See comment in **red** below. For your planning purposes, Kelly is your designated first contact for this shipment and I'm your back-up in the event that Kelly is unavailable.

Darin

-----Original Message-----

From: Kelly Helmick
Sent: Wednesday, July 20, 2005 2:54 PM
To: 'Holly Reed'
Cc: Darin Collins
Subject: RE: bamboo shipment

thanks holly. we should have the records copied by the end of the week. i will review them before sending them, send an email response to the questions below.

in my initial review, bamboo is living with chai, a female who spent time at dickerson park zoo (for natural breeding) - this zoo has a history of asian elephant herpesvirus. chai's baby - hansa - was born without incident or symptoms even remotely suggestive of elephant herpesvirus. Literature and supporting documents of elephant herpesvirus cases is supportive of older elephants manifesting herpesvirus infections following a stressful move - this should be addressed in our contingency plans - maybe to have a dose of anti-virals on-hand or a known source identified in the event of symptoms supportive of EHV once Bamboo moves, ie. swollen, discolored tongue, ventral midline edema, anorexia due to unknown, etc.

there is an oral history of follicular vulvovaginitis in bamboo and her exhibit mates - this has been linked to a different herpesvirus in some african elephants rest of the info will come later. These cases were reported by Dr. Billy Karesh and published in JZWM - we can send the citation. The goal of the paper was to describe these lesions which were reported as not uncommon in captive elephants in NA zoos.

in today's meeting, it was determined that stewardship will be transferred beginning with bamboos arrival into her STALL at PDZA. therefore, myself and at least one other vet staff member will be accompanying the shipment. just fyi. Minutes from today's meeting were taken for distribution at a later date - we can forward, as could Karen G from PDZA. Good meeting which was focused entirely on the Communication Strategy of this move - no real animal health topics were discussed to any length.

once you have all the info and we have test results back, we should discuss the move in more detail.

thanks, K!

-----Original Message-----

From: Holly Reed [mailto:hreed@pdza.org]
Sent: Tuesday, July 19, 2005 6:00 PM
To: Kelly Helmick; Darin Collins
Cc: Karen Goodrowe
Subject: RE: bamboo shipment

Hi Kelly,

Here are my preshipment requests:

1. CBC/serum chemistry
2. Rectal culture for salmonella or other fecal pathogens
3. Fecal exam for ova and parasites - direct and floatation
4. Trach wash/TB test history - results and date of last test
5. EMC virus titers - if previously tested negative - what other elephants have been introduced since that test and what is their location history and titer status.
6. History for exposure to herpes.
7. Medical records - to review historical medical issues and how we can best prepare to receive and take good care of her.

Kelly, Darin and Karen,

Darin and I have spoken and will be arranging a time for me to come up to Woodland Park to discuss medical issues, visit the elephant barn, go over the plans that you decide on tomorrow and meet and possibly be there for Bamboo's pre-ship exam.

Here are my questions for the meeting:

1. How old is Bamboo?
2. What method of transport would be most appropriate?
3. Will Bamboo have an acclimation period to get used to walking in and out of the transport semi or travel crate?
4. Does she have any behavioral issues that would require the use of sedation before or during the transport (I prefer to transport with an alert, unmedicated elephant, personally)
5. Does she have any arthritis issues that would affect her ability to stabilize herself or rise up from laying down?
6. Is she currently on any medications that affect her level of alertness?
7. What is her response to new/novel situations or introduction of new adult elephants?

I am very sorry that I will not be able to attend Wednesday's meeting. Hope all goes well and I will wait to hear what you all decide. It is nice to be able to collaborate on this effort!

Holly

Holly Reed, DVM
Head Veterinarian
Point Defiance Zoo & Aquarium
5400 N. Pearl St.
Tacoma, WA 98407

(253) 404-3639 (o)
(253) 404-3631 (to be contacted by radio)
(253) 591-5448 (FAX)

-----Original Message-----

From: Kelly Helmick [<mailto:Kelly.Helmick@Zoo.org>]

Sent: Tuesday, July 19, 2005 8:30 AM
To: Holly Reed (E-mail)
Cc: Darin Collins
Subject: bamboo shipment

holly - thanks for the phone response. probably best if you could fax or email a list of your questions or concerns, preferably before wednesday's meeting, and we can address those then and get that info back to you end of the week. thanks, k.

Kelly E. Helmick, DVM, MS
Associate Veterinarian
Woodland Park Zoo
601 North 59th Street
Seattle, WA 98103
office: 206-684-5207
fax: 206-684-4873
email: kelly.helmick@zoo.org

Holly Reed

From: Kelly Helmick [Kelly.Helmick@Zoo.org]
Sent: Sunday, August 07, 2005 9:43 AM
To: Holly Reed (E-mail)
Subject: elephant preship

COPY

1. CBC/serum chemistry - we perform regular bloodwork, all normal for this animal. a repeat sample will be pulled prior to shipment and if WNL, we will just send a copy with the records.
2. Rectal culture for salmonella or other fecal pathogens - we will pull a sample prior to shipment and if WNL, send a copy with the records
3. Fecal exam for ova and parasites - direct and floatation - like blood, performed regularly, we will repeat before shipment and if WNL, will send a copy with the records
4. Trach wash/TB test history - results and date of last test - annual testing in April 05 negative for all 3 trunk washes (see medical records)
5. EMC virus titers - if previously tested negative - what other elephants have been introduced since that test and what is their location history and titer status. - no titers pulled on any of our elephants
6. History for exposure to herpes. - no history that i could find, negative titers July 1999 (see medical records)
7. Medical records - to review historical medical issues and how we can best prepare to receive and take good care of her. - you should have these already.

Kelly E. Helmick, DVM, MS
Associate Veterinarian
Woodland Park Zoo
601 North 59th Street
Seattle, WA 98103
office: 206-684-5207
fax: 206-684-4873
email: kelly.helmick@zoo.org

COL M

QUARANTINE/TREATMENT/OBSERVATION SHEET

Species: Asiatic Elephant Accession#: 105110 Location: Elephant Barn

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
2005																																
August																																
September																																
October																																

Fecal O&P- #1 1018 results: CP-Negative #2 1023 results: CP-Negative #3 1031 results: CP-Negative

Other test: #1 results: #2 results: #3 results:

Cultures- type: results:

VPE: visual - animal appears good health - stool normal - appears good - interactive with keepers

Vaccines- Last vaccinated (date): Type: Needs:

TB testing- Tuberculin used: On at Woodland Park - two washes - test results @ 24 hr: 48hr: 72hr: negative

Blood collection- CBC Chemistry Serum bank Other: to be used

Treatments- Drugs/dosage:

Weight: 2000lb Date: Aug 23 2006 Weight: _____ Date: _____

Date released from quarantine: provisional Nov 1 2005 health care: ORX: _____

COPY

22-July-05 • 0.1.0 • Elephant "Bamboo" • ISIS#20073 • Pt. Defiance Zoo, Tacoma WA • August 2005 • ZAT#M-2264 • EAST/Toffic-Upchurch
Vet Name/Contact Info: Holly Reed hreed@pdza.org

<i>Preshipment Requests</i>	<i>Date Completed</i>	<i>Results</i>	<i>Comments</i>
HC typed	7/22/05 asgs		
USDA form 7040 to curators	7/22/05 asgs		
Permit required? Obtained?			
State vet contact info	Dr. Kathleen Connell kconnell@agr.wa.gov		
Visual + weight	8/23	PE WNL; wt=8600 lbs	
CBC/panel/serum bank	8/18	WNL	
Fecal O&P	8/19	negative	
Fecal culture ID	8/19	negative	
TB trunk wash	April 5-7, 2005	negative	
herpes PCR	July 1999	negative	
EMCV exposure	None	none	none
medical records to vet	August 8, 2005 (asgs) shipped first class		WNV negative 2003
Date ready to ship			
HC signed/records completed	23 Aug05		

7/21/05: From Holly Reed: Here are my preshipment requests:

1. CBC/serum chemistry
 2. Rectal culture for salmonella or other fecal pathogens
 3. Fecal exam for ova and parasites - direct and floatation
 4. Trach wash/TB test history - results and date of last test
 5. EMC virus titers - if previously tested negative - what other elephants have been introduced since that test and what is their location history and titer status.
 6. History for exposure to herpes.
 7. Medical records - to review historical medical issues and how we can best prepare to receive and take good care of her.
- 8/11 - CBC/panel, fecal culture, fecal O&P to be performed within 7-10 days of anticipated ship date. Keeper staff will also get a recent weight. Oral psyllium to be added to diet for 1 week prior to shipment. Oral electrolytes to be offered 12-36 hr prior to shipment in addition to regular water.

PRESHIPMENT COPY

Bamboo / Elephant

Kelly Helmick

PRESHIPMENT COPY

From: Kelly Helmick
Sent: Monday, August 08, 2005 2:06 PM
To: Patrick Maluy
Cc: Bruce Upchurch; Darin Collins; Bret Sellers; Farshid Mehrdadfar; Linda Moneymaker; Barbra Brush; Teri Hermann; Nancy Hawkes
Subject: elephant preshipment-prophylactics

i would like us to implement the following recommendations from the SSP prior to bamboo's shipment:

1. administer psyillium (equine dose) daily for 1 week prior to anticipated ship date (=to maintain GI movement and help push out any low-grade sand, etc.); we will recommend to PDZA to continue this for 1-2 weeks post-arrival
2. administer oral electrolytes (in water) for 1-2 days prior to shipment (=to help insure adequate electrolyte balance); provide in addition to regular water
3. water heavily and deep 12 hr prior to shipment (=to insure good hydration prior to loading)

in addition, we will pull CBC/panel/fibrinogen, rectal culture screen, and fecal O&P within 7-10 days of shipment.

a routine health exam will be performed within 1 week of shipment, with another exam the morning of shipment, prior to loading, so that we can communicate and agree that this animal is in good health for shipment

for completeness sake, we are going to submit a recent serum sample to Disney for the new (and still free) elephant TB serology test; all previous trunk washes have been negative, so this is just an addendum item.

please let me know if have questions/comments/concerns.

thanks, k.

Kelly E. Helmick, DVM, MS
Associate Veterinarian
Woodland Park Zoo
601 North 59th Street
Seattle, WA 98103
office: 206-684-5207
fax: 206-684-4873
email: kelly.helmick@zoo.org

PRESHIPMENT COPY

Bamboo / E' phant

COPY

Kelly Helmick

PRESHIPMENT COPY

From: Patrick Maluy
Sent: Thursday, July 21, 2005 4:45 PM
To: 'hreed@pdza.org'
Cc: Kelly Helmick; Darin Collins; Bruce Upchurch; Russ Roach; Charles Harke; Steve Cremer; Pat Owen; Ken Morgan
Subject: FW: bamboo shipment questions from dr. reed

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Per a request from Darin and Kelly, concerning Bamboo's transfer to PDZA, I can provide a bit more information.

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As far as behavioral issues are concerned, she doesn't have any really, unless you consider her aggressive history toward some keepers and trainers. The other potential issue may be her extreme intelligence and "mechanically inclined" brain for lack of a non-anthropomorphic term. This could potentially present some problems cause she's so darn smart!

I think all involved are in agreement that we would prefer not to use any sedatives for the transfer unless necessary.

The only other thing I can add is although Bamboo doesn't have any experience with introductions to other adult elephants, she has been subordinate to Watoto, our African and shows all the correct submissive behavior when they have been together. She also has been very good with novel situations, has been used for shows, taken on walks on grounds routinely and is a very solid animal behaviorally. She has a long and varied life experience with many new and novel conditions such as being housed with river hippos, temporarily housed in our bear grotto area, moved from her original "baby elephant" exhibit in the farm, then to the old elephant barn circa 1920 and finally to this exhibit which opened in 1989. Finally, although it was a long road and introduction process, she did eventually accept our newest addition, Hansa.

If you have any other questions or concerns, please contact Kelly, Darin or myself.

See you soon!

Pat

PRESHIPMENT COPY

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

=====

.....2005...

26.Aug.2005

SOAP: Bamboo arrived last night. Unloading was very smooth. Bamboo walked out at a normal pace and calmly. Keepers from WPZ present to make sure she had something familiar in her new home. They will be working with her daily here for at least a week. She went through normal behaviors upon arrival and ate. Will keep her under observation and start fecal exams as soon as keepers can start collecting feces.

WPZ staff started Bamboo on equine dose of psyllium orally and electrolytes in the water prior to her transport. Will continue the psyllium and electrolytes in the water for at least 7 more days.
(HHR)

18.Oct.2005

SOAP: Fecal exam #1 negative for O&P and giardia/crypto(IFA) (HHR)

23.Oct.2005

SOAP: Quarantine fecal exam # 2 negative for O&P (HHR)

31.Oct.2005

SOAP: Quarantine fecal #3 is negative for O&P (HHR)

1.Nov.2005

S: Quarantine Exam - visual. Bamboo has continued to appear normal (as confirmed by her WPZ keepers) behaviorally since her arrival. Stools are normal. Appetite is normal. She has interacted verbally and tactily with the other elephants. They are reported to be getting along well. Preshipment reports and testing from Woodland Park Zoo (WPZ) indicate that Bamboo is negative for TB via trunk washes and Rapid Test and MAPIA performed through the study conducted by Dr. Michelle Miller at Disney's ANimal Kingdom. No titers for EMC virus reported for any of the WPZ elephants.

O: Wt = 8600 lb on 23 AUG 05

A: Provisional release from quarantine - bloodwork will be collected when keepers have trained the behavior for our protected contact situation.

P: WPZ reported previous routine tail soaking for chronic follicular abscesses and cracked tail skin. Changed to routine tail soaks in apple cider vinegar and applying moisturizer as needed. Monitor to evaluate. (HHR)

.....2006:...

12.Jan.2006

Problem: ABCESS - right hip region (Confirmed)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

=====

22.Jan.2006

Problem: ABCESS - right hip region (Confirmed)

S: Results of the bloodwork submitted 21Jan06.

O: WBC = 11.7, hct = 40, BUN = 22, phos = 2.8, AST = 30

A: Values within normal limits except for the low phosphorous.

P: Animal exhibits no abnormal behavior. Will continue to monitor phosphorus in quarterly bloodwork to see trends. Tail soaks in cider vinegar are working well. Tail abcesses have decreased. Will continue this treatment. (HHR)

26.Jan.2006

Problem: ABCESS - right hip region (Confirmed)

SO: Small mass seen on right hip has opened up. Keepers report that WPZ keepers reported history of abcess on this hip. Preexisting callous at that site would dry and crack, become infected and required treatment.

A: Right hip abcess

P: Sample of pus taken from hip abcess for culture and sensitivity. In the mean time keepers will flush hip with dilute chlorhexidine solution and infuse triple antibiotic ointment. Recheck in two weeks to evaluate effectiveness of treatment. (HHR)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

=====

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

=====

26.Jan.2006

Problem: ABCESS - right hip region (Confirmed)

Tobramycin:	R		
Trimethoprim/Sulfa:	S		
Amikacin:	R		

Comments: Gram Stain: light debris, moderate gram positive cocci
Trima/sulfa susceptibility is being rechecked.
Timethoprim/Sulfa has tested as "sensitive" but it's not recommended for
the treatment of this organism (JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

27. Jan. 2006

Problem: ABCESS - right hip region (Confirmed)
<<< Microbiology >>>

Sample Accession #:601261497

Laboratory:

Phoenix
 Other:

Collection Date:26 Jan 06
Submission Date:26 Jan 06
Reporting Date:31 Jan 06

Submission type:

aerobic bacteriology
 anaerobic bacteriology
bottom
 mycology
 enteric pathogen screen
 mycobacterial

Sample source:Right hip larger
abcess hole on

Organism:

Growth: heavy moderate light

- | | | | |
|---|-------------------------------------|--------------------------|-------------------------------------|
| 1.Group B Streptococcus (strep. agalactiae) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.Staphylococcus sp. coagulase negative | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3.Pantoea spp. (enterobacter agglomerans) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sensitivity:

	1	2	3
Amoxicillin:			
Amoxicillin/Clavulanate:	S		S
Ampicillin/Sulbactam:			
Ampicillin:	S		S
Cefotaxime:	S		S
Cephalothin:	S		S
Ceftiofur (naxel):	S		
Chloramphenicol:	S		S
Clindamycin:			
Erythromycin:	S		
Gentamicin:	I		S
Carbenicillin:			S
Nitrofurantoin:			
Enrofloxacin:	S		S
Ticarcillin:			S
Penicillin:			
Piperacillin:			S
Sulfamethoxazole:			
Tetracycline:	S		S

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

```

=====
ELEPHAS MAXIMUS (no subsp)          Sex: Female          Acc. #: T05M10
Asiatic elephant                    Age: 41Y Est.       Birth: 1.Nov.1966
Name: BAMBOO
=====

```

27.Jan.2006

Problem: ABCESS - right hip region (Confirmed)

Tobramycin:	R		S
Trimethoprim/Sulfa:	S		S
Amikacin:	R		S

Comments: Gram Stain: Moderate debris, light cellular debris, rare pmn's, moderate gram positive cocci
 Trimethoprim/Sulfa has tested as "sensitive" but is not recommended for treatment of this organism (JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

=====

ELEPHAS MAXIMUS (no subsp)	Sex: Female	Acc. #: T05M10
Asiatic elephant	Age: 41Y Est.	Birth: 1.Nov.1966
Name: BAMBOO		

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31.Jan.2006

Problem: ABCESS - right hip region (Confirmed); EXAM VISUAL
S: Results of the culture and sensitivity of right hip abcess
O: Heavy growth of Group B Strep (agalactiae), scant growth of
Micrococcus sp. and Staph sp coag negative - light growth, light growth
of pantoea spp. (Enterobacter agglomerans) all sensitive to multiple
antibiotics - lab does not recommend use of Trimeth Sulfa.
A: skin contaminants found in abcess
P: Continue with treatment previously described. If doesn't work
change to using sivadine cream after flushing. (HHR)

5.Feb.2006

Problem: ABCESS - right hip region (Confirmed)
SOAP: Abcess right hip flushing very well. Almost no pus expressed.
(HHR)

8.Feb.2006

Problem: ABCESS - right hip region (Confirmed); EXAM VISUAL
SO: Abcess site is flat and hard. Keepers say that they are getting
no pus from the lower hole and only a tiny piece out of the upper
hole.
A: Abcess resolving
P: Tomorrow will flush the site and then infuse silvadine cream/neo
predef combination. Recheck site on Friday. (HHR)

9.Feb.2006

Problem: ABCESS - right hip region (Confirmed); TREATMENT - ANTIBIOTIC

17.Feb.2006

Problem: ABCESS - right hip region (Confirmed)
Plans were to recheck hip lesion today... multiple power outages
resulted in gate complications. Keeper explains that they were unable
to treat the hip today anyway. At this time, it is hard to tell if the
ssd/npf combo has improved the status or not. Attempt to recheck
Monday. (ALC)

20.Feb.2006

Problem: ABCESS - right hip region (Confirmed); Recheck abcess - right
hip region.

21.Feb.2006

Problem: ABCESS - right hip region (Confirmed)
SO: Rechecked the abcess on 20FEB06. Still getting 1-2 cc pus when
manually express. After one day of BID apple cider flushed only BB
size amount of pus present. Keepers report that the tract appears

Clinical Notes - Individual Specimen Report
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21.Feb.2006

Problem: ABCESS - right hip region (Confirmed)
more open.

A: Hip skin dry. Still positive for purulent exudate

P: Change flush to apple cider vinegar and water 4:1 twice a day. See if that will dry up the tract and toughen it up. Also start using vit E cream on the hip to soften the skin. Continue apple cider flush.

Are also discussing possible treatment with unpasteurized honey.

(HHR)

24.Feb.2006

Problem: ABCESS - right hip region (Confirmed); Treatment - Revision
Recheck of right hip abscess. Flushed tract in both directions with saline and expressed approx 1cc exudate with manipulations. Infused raw honey in tract. Interested in the results of this new treatment. Plan is to have keepers flush with dilute nolvasan and infuse tract with honey twice daily. recheck Monday.
Rx: UNPASTEURIZED HONEY topically BID for 5 days. (ALC)

2.Mar.2006

Problem: ABCESS - right hip region (Confirmed); Exam - right hip region
Recheck of right hip abscess and current treatment success. Keepers (Andy and Shannon) report increased amounts of exudate present when treating. They feel that the least amount of exudate was produced with the apple cider vinegar treatment.

Flushed tract repeatedly in both directions with dilute nolvasan and expressed approx 5-6cc exudate with manipulations. Did not infuse honey at this treatment with plans to possibly switch back to apple cider vinegar.

Discussed case with Dr Reed. The feeling is that we have not given honey treatment enough time. Spoke with Dr Ramer at Indianapolis as well as reviewed the honey treatment protocol literature from the Indy elephant case.

Plan is to continue to have keepers flush with dilute nolvasan and infuse tract with honey twice daily. Continue rechecks.

Rx: HONEY (UNPASTEURIZED) ml topically BID for 7 days.

PM: keepers report either Hanako or Suki is pulling out Bamboo's hair and chewing it into hair-mixed-with-hay balls. Keepers have found these balls in the treatment stall. (ALC)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO
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Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966
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10.Mar.2006

Problem: ABCESS - right hip region (Confirmed); Exam - right hip region

13.Mar.2006

Problem: ABCESS - right hip region (Confirmed); Exam - right hip region

3.Apr.2006

Problem: ABCESS - right hip region (Confirmed)

SO: Keepers still getting pus from right hip abcess. After reviewing the article in AAZV 2005 by Jan Ramer (Indy zoo) about use of honey in treatment of a deep wound in an elephant, their treatment went on for approx 54 days before resolved, but saw continual improvement. We are seeing none here.

A: Discontinue honey treatment and initiate furazone treatment after flushing with dilute chlorhexidine.

P: Treat for two weeks then reevaluate.

Rx: FURAZOLIDONE topically BID for 14 days. (HHR)

18.Apr.2006

Problem: ABCESS - right hip region (Confirmed)

SOA: Preshipment sample collection for Bamboo is as follows:

SUBJECT: SAMPLE COLLECTION SCHEDULE FOR BAMBOO

The following samples will need to be collected for Bamboo's preshipment requirements:

- 1. Trunk Washes
a. Three samples - can be collected on consecutive days
b. The samples must be frozen immediately after collection
c. Deliver to Julie the day of collection.
d. Julie will arrange to send them off all together (just Bamboo's) on dry ice by overnight express to National Veterinary Services Lab. Request mycobacterial culture with speciation (using VS form 10-4)
2. Blood has to be taken in the same week that the trunk washes are collected.

Table with 3 columns: TEST, LAVENDER, TIGER. Rows include RT/MAPIA, EEHV, CBC, Chemistry, Vit E levels, Disney Serum Bank.

Results recorded on Nat'l Zoo sheet - 19 Apr 06

TOTAL
2 ml

Clinical Notes - Individual Specimen Report
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Asiatic elephant
Name: BAMBOO

Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966

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18.Apr.2006

Problem: ABCESS - right hip region (Confirmed)
 <<< Microbiology >>>

Sample Accession #:1460505

Laboratory:

Phoenix
 Other:NVSL

Collection Date:18 April 06
Submission Date:28 April 06
Reporting Date:29 June 06

Submission type:

aerobic bacteriology
 anaerobic bacteriology
 mycology
 enteric pathogen screen
 mycobacterial

Sample source: Trunk Wash

comments: No Mycobacterial Isolation Made (JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO
=====

Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966

19.Apr.2006

Problem: ABCESS-- right hip region (Confirmed)
<<< Microbiology >>>

Sample Accession #:604191727

Laboratory:
[x] Phoenix
[] Other:

Collection Date:19 April 06
Submission Date:
Reporting Date:24 April 06

Submission type:
[x] aerobic bacteriology
[] anaerobic bacteriology
[] mycology
[x] enteric pathogen screen
[] mycobacterial

Sample source:feces

Organism:
1. Mixed enteric flora

Growth: heavy moderate light
[] [] [x]

Comments: No Salmonella or Campylobacter Isolated
(JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966

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20.Apr.2006

Problem: ABCESS - right hip region (Confirmed)

S: Results of preship testing - cbc/chem and first ova and parasite exam.

O: Fecal Exam negative for ova and parasite.

CBC: WBC = 11.0, monos = 5720, chem: phos = 3.1

A: Fecal exam negative, bloodwork within normal limits. Phosphorus low but increased from last blood in January - may be nutritional

P: Continue to monitor serum phosphorus see if varies at WPZ. (HHR)

Clinical Notes - Individual Specimen Report
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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

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Sex: Female Acc. #: T05M10
Age: 41Y Est. Birth: 1.Nov.1966

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21.Apr.2006

Problem: ABCESS - right hip region (Confirmed)

<<< Microbiology >>>

Sample Accession #:604211307

Laboratory:

- Phoenix
- Other:

Collection Date:21 April 06
Submission Date:
Reporting Date:25 April 06

Submission type:

- aerobic bacteriology
- anaerobic bacteriology
- mycology
- enteric pathogen screen
- mycobacterial

Sample source: feces

Organism:

1.Mixed enteric flora

Growth: heavy moderate light
 [] [] [x]

Comments:No Salmonella or Campylobacter Isolated
(JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.

Acc. #: T05M10
Birth: 1.Nov.1966

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22.Apr.2006

Problem: ABCESS - right hip region (Confirmed)
<<< Microbiology >>>

Sample Accession #:1460506

Laboratory:

- Phoenix
- Other: NVSL

Collection Date:19 April 06
Submission Date:28 April 06
Reporting Date:29 June 06

Submission type:

- aerobic bacteriology
- anaerobic bacteriology
- mycology
- enteric pathogen screen
- mycobacterial

Sample source:Trunk Wash

comments: No Mycobacterial Isolation Made (JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: T05M10
Asiatic elephant                     Age: 41Y Est.        Birth: 1.Nov.1966
Name: BAMBOO
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23.Apr.2006

Problem: ABCESS - right hip region (Confirmed)
<<< Microbiology >>>

Sample Accession #: 1460507

Laboratory:

- Phoenix
- Other:NVSL

Collection Date:20 April 06
Submission Date:28 April 06
Reporting Date:29 June 06

Submission type:

- aerobic bacteriology
- anaerobic bacteriology
- mycology
- enteric pathogen screen
- mycobacterial

Sample source:Trunk Wash

Comments: No-Mycobacterial Isolation Made
(JCL)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: T05M10
Asiatic elephant                     Age: 41Y Est.        Birth: 1.Nov.1966
Name: BAMBOO
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24.Apr.2006

Problem: ABCESS - right hip region (Confirmed)
 S: Results of fecal culture # 1 submitted 19April06 and #2 submitted 20April06 for for preshipment testing
 O: both were light mixed enteric flora, no salmonella or campylobacter
 A: Negative for fecal pathogens
 P: Continue preshipment testing (HHR).

25.Apr.2006

Problem: ABCESS - right hip region (Confirmed)
 S: Results of the fecal culture #3 submitted 21APRIL 06 for preshipment testing
 O: Light mixed enteric flora, no salmonella or campylobacter isolated
 A: No fecal pathogens
 P: Continue preshipment request testing (HHR)

27.Apr.2006

Problem: ABCESS - right hip region (Confirmed)
 S: Results of the fecal exam #2 for preshipment testing
 O: Fecal exam negative for ova and parasites via direct and flotation.
 A: No fecal parasites
 P: Continue preshipment testing (HHR)

3.May.2006

Problem: ABCESS - right hip region (Confirmed)
 S: Results of preshipment testing requests for serum vitamin levels
 O: Vit E = 0.96 ug/ml (Michigan State University)
 A: Vit E levels normal compared to the levels in elephants established at MSU of about 1 ug/ml with a range from 25th to 75th percentile of 0.75-1.3 ug/ml
 P: Continue with preshipment testing (HHR)

4.May.2006

Problem: ABCESS - right hip region (Confirmed)
 S: Results and fecal exam #3 submitted 3MAY 06
 O: Fecal exam negative for ova and parasites on direct and float
 A: Feces negative for parasites
 P: Continue to collect preshipment tests (HHR)

10.May.2006

Problem: ABCESS - right hip region (Confirmed); Exam - Recheck
 Recheck examination of right hip skin abscess. Resolved. No further treatment. The furacin ointment was a great success. (ALC)

Clinical Notes - Individual Specimen Report
POINT DEFIANCE ZOO & AQUARIUM

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ELEPHAS MAXIMUS (no subsp)
Asiatic elephant
Name: BAMBOO

Sex: Female
Age: 41Y Est.
Acc. #: T05M10
Birth: 1.Nov.1966

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10.May.2006

Problem: ABCCESS - right hip region (Confirmed); Exam - Recheck
S: Results of Rapid Test and MAPIA taken 25April06 for TB in elephants as performed in the study being conducted by Dr. Miller at Disney Animal Kingdom
O: RT negative, MAPIA = negative
A: Bamboo is negative for TB via RT and MAPIA testing
P: NOTE: One of the two other elephants that Bamboo is living with has been found reactive on the RT and MAPIA testing by Dr. Miller's study, though negative on annual trunk washes. Further testing is being conducted on banked serum and correlated with that elephant's location history. At this time, the third elephant in the collection is also negative on RT and MAPIA. Further information will be forwarded to Dr Collins at WPZ to that he may evaluate the need for further testing or treatment of Bamboo. To date, though Hanako (neg RT and MAPIA) has been living with Suki (RT and MAPIA reactive) for 9 years she remains negative for TB through RT, MAPIA testing and annual trunk washes. This bodes well for Bamboo who has only lived with Suki for 10 months. Suki has been asymptomatic all 10 years that she has lived at PDZA (HHR)

11.May.2006

S: Results of the #4 fecal exam for preshipment testing
O: Negative for fecal ova and parasites via direct and flotation
A: Negative for fecal parasites
P: Continue preshipment testing (HHR)

12.May.2006

S: Results of the EEHV ELISA. From National Zoo Department of Pathology.
O: ELISA titers are reported out as low
A: Low titer for both Suki and Bamboo
P: Note from the lab - The EEHV ELISA is in the developmental stage. We are still working on many aspects of the test, including storage conditions for samples, controls to be used, detection systems, and significance of positive/negative titers. We will be using the results over the next six to twelve months to help us determine the optimal ELISA for EEHV. Please keep in mind that your results are part of this developmental process, and may not reflect the elephants' actual EEHV status. Thank you for sending samples for us to use in this endeavor. (HHR)

5.Jun.2006

Fecal submitted for O&P, sedimentation for preshipment. Started on psyllium (equi aid) 8 scoops (provided in bucket) SID for 14 days. (JCL)