

MedARKS%20Reports[1]

- 23.May Hx Elephant area reported that elephant was recently noticed to be digging down in the exhibit and ingesting clay soil. Staff note that they have seen captive elephants do this on occasion and are aware of wild elephants also exhibiting this behavior. On 21 May, the feces passed was 20-30% clay. On 22 May in the morning, elephant had some diarrhea and about 50% clay stool. Today, elephant is "back on track", is eating regular diet, and feces is formed, with only a small clay component. Elephant area will monitor. (ZSG)
- 5.Jun Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.  
NO PARASITES SEEN
- 13.Jun PROBLEM: PHOTOGRAPH (onset)

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Medical History Report - Summary for Individual Specimen  
LOUISVILLE ZOOLOGICAL GARDEN

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LOXODONTA AFRICANA (no subsp)	Sex: Male	Acc. #: 102767
African elephant	Age: 1Y 3M 29D	Birth: 18.Mar.2007
Name: SCOTTY		

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.....2007...

18.Mar Birth.  
PROBLEM: birth  
Blood sample: (EDTA) (17:00.0) Hematology results.  
WBC:10.60 \*10<sup>3</sup>/UL; HCT: 57.0%;  
Hemolysis  
Blood sample: (17:00.1) Chemistry results.  
BUN:8 MG/DL;  
Hemolysis  
Blood sample: (17:00.2)  
Calf born at 20:45 day 633 of gestation. Labor was uneventful.  
Immediate calf evaluation:  
Rectal temperature 98.4 F. Cardiac: Heart rate 100. Auscultation normal except for referred gurgling respiratory sounds from the trunk. Respiratory: Mouth suctioned with a shop vac but there was minimal fluid in the mouth. Respiratory rate 34. There was some gurgling sounds in the trunk that resolved once the calf stood. Calf transitioned from oral breathing to nasal breathing in a few seconds (normal) and intranasal oxygen was administered. Tongue was pale pink.  
Umbilicus is normal (no hernias) and was flushed with chlorhexidine diluted in 0.9% saline. Dr. Schmitt recommended chlorhexidine over tincture of iodine as tincture is rather caustic and can result in a knotty inflammatory response at the umbilicus. He recommends TID flushing for a few days.  
Calf was assisted in standing and stood at about 30 minutes post

birth. Calf passed a large bolus of meconium while still lateral during initial assessment. Meconium continued to pass periodically during the next several hours.

Calf measurements:

Height 37 1/2 inches	Head to Tail 40 inches
Trunk tip to tail tip 74 inches	Trunk length 11 1/4 inches
Tail length 16 inches	
Left ear length 19 inches	Left ear width 13 inches across
Right ear length 19 inches	Right ear width 13 inches across
Right front leg length 32 inches	Right front foot 19 inches
Right rear leg length 28 inches	Right rear foot 17 1/2 inches

Blood collected from ear vein. In house CBC is normal.  
 Umbilicus sent in saline to Dr. Noha Aboumadi, Rosamond Gifford Zoo, Syracuse, NY for endothelial cell culture For use in elephant herpesvirus research by Dr. Julia Flaminio, Cornell university college of Veterinaty Medicine.

Notes from conversation with Dr. Dennis Schmitt:

Expect a weight loss of about 10% in the first week or so. This is in part due to fluid losses associated with drying of the skin.

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Herpesvirus: There are now at least 7 known herpesviruses in elephants and the early model of two elephant herpesviruses endemic in one species and fatal in the other is obsolete. Although it is possible for younger calves to develop disease, it is more common at 10 - 24 months of age. A symptom observed earlier than the cyanotic tongue is ulceration on the roof of the mouth (palate).

Transfer of immunoglobulins: We are finding that the elephant placenta is a zonary placenta and in regards to transfer of immunoglobulins, functions more like a dog placenta, transferring as much as 80% of the immunoglobulins to the calf via the placenta. Colostrum is less critical in the transfer of immunoglobulins to the calf. Dr. Schmitt recommends milking the dam and feeding the calf only when the calf appears weak from lack of nursing (energy) and not to worry about the calf getting a good nursing of colostrum by 12 - 24 hrs. There is likely not a great need for plasma transfers in elephants and he recommends against tube feeding bovine colostrum as the proteins in bovine colostrum are quite different from those in elephant colostrum. He has offered milk va an IV tube along a finger and placement of the finger in the calf's mouth. This should be done near the dam's udder so the calf associates the location with milk. (RBB)

Weight: 129.3 Kg (285.0 Lb)

19.Mar Calf first nursed at 15:10 today (18 hr, 25 min post-birth). Calf remains strong and staff continues supervised nursing and bonding

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sessions.

Using norms for baby elephants (husb manual p 178) Chem & prot electrophoresis from blood collected yesterday shows low glucose and high potassium. Sample was hemolyzed and this may be the reason for elevated potassium. Glucose has likely resolved as calf is nursing. (RBB)

S Calf manually restrained for exam twice today. Umbilicus treated 3 times today with 0.5% chlorhexidine. Oral exam: gums and tongue pink.

O AM: temp 99.4, HR 120, RR 24. PM: temp 97.6, HR 80, RR 20.

A

P (VRC)

20.Mar Blood sample: (EDTA) (10:30.0) Hematology results.

WBC:11.90 \*10<sup>3</sup>/UL; HCT: 41.0%;

Low volume sample; Quantity not sufficient for chemistry sample

Blood sample: (10:30.1)

Quantity not sufficient for chemistry sample

CBC from blood collected today is normal. (RBB)

Weight: 118.0 Kg (260.1 Lb)

21.Mar Hx Elephant area is leading calf to nurse every 2 hours around the

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21.Mar clock. vet staff continues to do TID umbilical cleaning, and BID oral exams and TPRs. Elephant staff have not seen calf pass regular milk stool except for a small amount of smashed material yesterday that was interpreted to be feces. Monitor. (ZSG)

Weight: 118.0 Kg (260.1 Lb)

22.Mar Chem from blood collected 20 Mar 07 shows a low glucose (47 mg/dl) and a high phosphorus (7.3 mEq/L). Monitor. (RBB)

S Calf manually restrained for exam three times today. Umbilicus flushed 3 times with 0.5% chlorhexidine solution. Oral cavity checked and is normal 2 times. AM: T - 97.2, P - 70, R - 16

PM: P - 70, R - 18

O

A

P (VRC)

23.Mar Hx Other than some meconium plugs that were passed soon after birth and a single, small, flattened pile of feces observed on 20 March, regular passage of milk stool has not been observed. However calf is bright, strong, and vigorous, and continues to nurse well. Umbilical opening is very small. Decrease to BID chlorhexidine flushing. (ZSG)

Weight: 120.2 Kg (264.9 Lb)

25.Mar S Calf manually restrained for exam twice today. Umbilicus treated with 0.5% chlorhexidine solution. Oral exam normal. Calf defecated

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today.

O AM: T - 97.2, P - 76  
 PM: T - 96.7, P - 70, R - 32  
 weight 260 lbs.

A  
 P (VRC)

Weight: 118.0 Kg (260.1 Lb)

- 26.Mar Staff reports calf defecated a large amount of milk stool. (RBB)
- 27.Mar S Calf manually restrained for exam and treatment one time today.  
 Umbilicus flushed with 0.5% chlorhexidine solution. Oral exam normal.  
 O T - 96.6, P - 56  
 A  
 P (VRC)  
 Hx Switch to once daily umbilical flushing. (ZSG)
- 28.Mar S Calf manually restrained once today for umbilical flush and oral exam.  
 O  
 A Oral exam normal.  
 P (VRC)
- 29.Mar Calf defecated 3 times today. Feces were green and slimy. He has

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- 29.Mar been seen eating mom's feces and placing hay in his mouth.  
 S Calf manually restrained for oral exam and flushing umbilicus.  
 Umbilicus flushed with 0.5% chlorhexidine solution.  
 O weight 270 lbs.  
 A Oral exam normal.  
 P (VRC)  
 Weight: 122.5 Kg (270.0 Lb)
- 1.Apr Umbilicus flushed with 0.5% chlorhexidine. Last day for flushing of the umbilicus. Oral exam revealed pink, healthy tongue, gums, oral cavity. (VRC)
- 2.Apr Oral exam: normal tissue and tongue. (VRC)
- 5.Apr Blood sample: (EDTA) (10:00.0) Hematology results.  
 WBC:17.30 \*10<sup>3</sup>/UL; HCT: 38.0%;  
 Blood sample: (10:00.1) Chemistry results.  
 BUN:12 MG/DL;
- 6.Apr CBC from blood collected yesterday is likely normal for a calf this age. (RBB)
- 10.Apr Chem from blood collected 5 Apr 07 shows normal results for a calf. (RBB)
- 10.Apr (RBB)
- 16.Apr PROBLEM: heterophilia (onset)  
 leukocytosis (onset)

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monocytosis (onset)

Blood sample: (EDTA) Hematology results.

WBC:25.90 \*10<sup>3</sup>/UL; HCT: 45.0%;

CBC from blood collected today shows a high WBC (25,900) with a heterophilia (9,971.5) and monocytosis (6993). Schedule an exam including TPR. (RBB)

Weight: 142.9 Kg (315.0 Lb)

17.Apr CBC from blood collected yesterday shows a high WBC (25,900) with a heterophilia (9,971.5) and monocytosis (6993). Schedule an exam including TPR. (RBB)

18.Apr PROBLEM: physical examination

S Due to leukocytosis, elephant calf was examined after being out in the yard for 2 hours. Calf is strong and fights restraint (and any kind of hands-on examination). Umbilicus was palpated and feels normal (firm subcutaneous stalk, but no swelling, heat, or discharge). Elephant staff report normal/unchanged activity and nursing bouts. Feces is soft milk stool.

O Heart rate = 120 bpm. Rectal temperature - 97.9 F.

A Normal TPR and umbilicus. Rate of weight gain is appropriate.

P Elephant staff will collect blood again next week to reevaluate.

(ZSG)

23.Apr Blood sample: (EDTA) Hematology/Chemistry/Serology results.

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23.Apr WBC:14.30 \*10<sup>3</sup>/UL; HCT: 35.0%; BUN:8 MG/DL;

Blood sample: ( : 0.1)

24.Apr PROBLEM: heterophilia (resolved)

leukocytosis (resolved)

monocytosis (resolved)

Blood sample: (EDTA) ( 9:30.0) Hematology results.

WBC:16.00 \*10<sup>3</sup>/UL; HCT: 40.0%;

Hemolysis

Weight: 152.0 Kg (335.0 Lb)

26.Apr S Blood results from sample collected 24 April 2007.

O

A CBC is more normal this time. Chemistries and fibrinogen are unremarkable.

P Resolve problems. (ZSG)

30.Apr PROBLEM: blood collection

weight: 158.8 Kg (350.0 Lb)

6.May PROBLEM: erupting teeth

Teeth are erupting in the upper right arcade. (VRC)

7.May PROBLEM: blood collection

14.May

weight: 170.1 Kg (374.9 Lb)

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- 20.May Teeth are erupting in the upper and lower left arcades. (VRC)  
 21.May PROBLEM: blood collection  
 weight: 177.0 Kg (390.1 Lb)  
 29.May PROBLEM: blood collection  
 weight: 186.0 Kg (409.9 Lb)  
 1.Jun Paternity testing results:  
 3701 South 10th Street Omaha, Nebraska 68107-2200 (402)  
 738-6904  
 June 1, 2007  
 Paternity Assessment for African Elephant Calf Born at Louisville Zoo  
 Presented was the scenario: African elephant cow (SB238) calved in mid-March 2007, after having being artificially inseminated with semen from three candidate African elephant bulls (Artie, SB403; Jackson, SB368, and MacLean, SB359).  
 All five samples were screened with six African elephant specific microsatellite loci. Accepting SB238 as the true and biological dam, the required allele was not received by the bull calf from either Artie SB403 or MacLean SB359 at two loci each, resulting in mismatched genotypes from these two candidates. There were no genotypic mismatches among the calf, the known dam and Jackson SB368.

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Therefore, assuming no other candidate sires exist, the paternity is accepted as Jackson SB368 for the 2007-born bull calf of dam SB238 by the genetic exclusion of the other two candidate sires.

Rick Brenneman, PhD  
 Center for Conservation and Genetics  
 Omaha's Henry Doorly Zoo  
 3701 South 10th Street  
 Omaha, NE 68107  
 rabr@omahazoo.com  
 402-738-6904 (RBB)

- 4.Jun PROBLEM: blood collection  
 weight: 192.8 Kg (424.9 Lb)  
 17.Jun PROBLEM: blood collection  
 vaccination - Tetanus toxoid  
 Purpose/Problem: vaccination - Tetanus toxoid  
 Vaccination: TETANUS TOXOID 1ml IM SID  
 Rx: TETANUS TOXOID 1 ml IM SID for 1 dose. (RBB)  
 S Elephant manually/behaviorally restrained to vaccinate with tetanus toxoid and blood collection. 1ml tetanus toxoid given in

the left rear leg.  
 O 12 ml blood collected from the left ear.  
 A  
 P Booster in 1 month. (VRC)

- 16.Jul PROBLEM: blood collection  
 decreased hematology result - packed cell volume (onset)  
 Blood sample: (EDTA) ( 8:30.0) Hematology results.  
 WBC:18.70 \*10<sup>3</sup>/UL; HCT: 28.0%;  
 In house CBC results from blood collected today show a low PCV (28%). Collect another sample and run a RBC series. (RBB)
- 17.Jul PROBLEM: vaccination - Tetanus toxoid  
 Purpose/Problem: vaccination - Tetanus toxoid  
 Vaccination: TETANUS TOXOID 1ml IM SID  
 S Elephant manually/behaviorally restrained for tetanus toxoid booster. 1ml tetanus toxoid given in the left rear leg.  
 Vaccination site was scrubbed with chlorhexidine and rinsed with alcohol prior to vaccination.  
 O  
 A  
 P Booster tetanus toxoid vaccine in 1 year. (ERH)
- 20.Jul PROBLEM: radiograph - abdomen  
 radiograph - chest  
 S Consulting veterinarian Dr. Scott Bennett present to radiograph

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- .....2007...
- 20.Jul elephant calf's abdomen to screen for sand ingestion. Several standing lateral radiographs obtained of abdomen and chest using a portable MinXray unit and digital cassette system.  
 O  
 A Chest x-ray revealed a normal chest - air-filled lungs. Abdominal x-rays revealed GI gas and no evidence of sand lining the dependent portions of the intestines.  
 P (ZSG)
- 23.Jul PROBLEM: decreased hematology result - packed cell volume (resolved)  
 Blood sample: (EDTA) ( 8:00.0) Hematology results.  
 WBC:13.10 \*10<sup>3</sup>/UL; HCT: 37.0%;  
 CBC from blood collected today shows normal results. PCV has normalized. (RBB)
- 30.Jul PROBLEM: blood collection  
 Blood sample: (EDTA) ( 9:45.0) Hematology results.  
 WBC:17.80 \*10<sup>3</sup>/UL; HCT: 39.0%;  
 CBC from blood collected today is normal. Blood being collected as a training tool and to add data to establish better normals for young African elephants. (RBB)

- 6.Aug PROBLEM: blood collection  
 Blood sample: (EDTA) ( 8:30.0) Hematology results.  
 WBC:16.80 \*10<sup>3</sup>/UL; HCT: 39.0%;  
 CBC from blood collected today shows likely normal results. WBC are high per ISIS norms for all ages but is normal per Husbandry Resource Guide (HRG) for this species under 9 yrs old. Bands may be high per the HRG but are normal per ISIS. Blood being collected as a training tool and to add data to establish better normals for young African elephants. Monitor. (RBB)
- 13.Aug Blood sample: (EDTA) ( 9:00.0) Hematology results.  
 WBC:15.40 \*10<sup>3</sup>/UL; HCT: 40.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 20.Aug PROBLEM: blood collection  
 Blood sample: (EDTA) ( 8:15.0) Hematology results.  
 WBC:14.50 \*10<sup>3</sup>/UL; HCT: 41.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 27.Aug PROBLEM: blood collection  
 Blood sample: (EDTA) ( 8:30.0) Hematology results.  
 WBC:14.00 \*10<sup>3</sup>/UL; HCT: 43.0%;

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.....2007....

- 27.Aug S CBC results from blood collected today.  
 O  
 A CBC is normal.  
 P (ZSG)

Weight: 276.8 Kg (610.1 Lb)

- 2.Sep PROBLEM: blood collection  
 Blood sample: (EDTA) Hematology results.  
 WBC:19.10 \*10<sup>3</sup>/UL; HCT: 33.0%;  
 CBC from blood collected today shows possible elevated WBC (19,100), increased bands (3%, 573), increased monocytes (26.5%, 5061.5). Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 6.Sep Staff reports calf is doing well. CBC abnormalities from 2 Sept 07 are likely not clinically significant. (RBB)
- 10.Sep PROBLEM: blood collection  
 Blood sample: (EDTA) ( 8:30.0) Hematology results.  
 WBC:13.30 \*10<sup>3</sup>/UL; HCT: 40.0%;

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- CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 16.Sep PROBLEM: blood collection  
Blood sample: (EDTA) (14:00.0) Hematology results.  
WBC:14.60 \*10<sup>3</sup>/UL; HCT: 43.0%;
- 18.Sep PROBLEM: vaccination - Rabies (Killed)  
S CBC results from sample collected 16 September 2007.  
O  
A CBC reveals a possible monocytosis - likely not clinically significant.  
P (ZSG)
- 25.Sep PROBLEM: johne's disease screening  
Johne's Radiometric Culture Results Form  
Johne's Testing Center  
University of Wisconsin  
School of Veterinary Medicine  
2015 Linden Dr., West Rm 4230  
Madison, WI 53706-1102  
Accession #: 58661  
Sample Type: Feces  
Species: Exotics  
Date Received: 26 September 2007  
Date Completed: 20 November 2007  
Collection: 25 September 2007  
Animal ID RESULT

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.....2007....

25.Sep	Goat Herd	Negative (all 8 separate composite samples)
	Camels 102740, 102741	Negative
	Rhino 100905, 100906	Negative
	Elephant 101038	Negative
	Camels 101158, 101159	Negative
	Elephant 102767	Negative
	Elephant 100479	Negative
	Reindeer 102003	Negative
	Bongo 102738	Negative
	Addax 102706	Negative
	Bongo 102746	Negative
	Bongo 101780	Negative
	Giraffe 102836	Negative
	Bongo 101426	Negative
	Results Certification: CL	19 November 2007 (CUL)
	Johne's screening: individual fecal sample submitted to the Johne's Center at the University of Wisconsin - Madison. (VRC)	

- 30.Sep PROBLEM: blood collection  
 Blood sample: (EDTA) (13:30.0) Hematology results.  
 WBC:14.30 \*10<sup>3</sup>/UL; HCT: 41.0%;  
 CBC from blood collected today shows normal results. Technician speculates that as this calf ages, monocyte count will decline. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 8.Oct PROBLEM: blood collection  
 Blood sample: (EDTA) Hematology results.  
 WBC:15.00 \*10<sup>3</sup>/UL; HCT: 39.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)  
 weight: 317.6 Kg (700.0 Lb)
- 15.Oct PROBLEM: blood collection  
 Blood sample: (EDTA) Hematology results.  
 WBC:14.70 \*10<sup>3</sup>/UL; HCT: 43.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 21.Oct PROBLEM: blood collection  
 Blood sample: (EDTA) Hematology results.  
 WBC:15.10 \*10<sup>3</sup>/UL; HCT: 42.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)

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- 4.Nov PROBLEM: blood collection  
 Blood sample: (EDTA) Hematology results.  
 WBC:14.00 \*10<sup>3</sup>/UL; HCT: 40.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 11.Nov PROBLEM: blood collection  
 Blood sample: (EDTA) ( 9:00.0) Hematology results.  
 WBC:13.50 \*10<sup>3</sup>/UL; HCT: 43.0%;  
 Blood sample: ( 9:00.1)  
 Blood sample: ( 9:00.2) Chemistry results.  
 BUN:7 MG/DL;  
 Blood sample: ( 9:00.3)  
 S Blood collected by elephant area staff for annual CBC, chemistries, and fibrinogen.  
 O

A  
P (VRC)  
12.Nov PROBLEM: annual examination  
                  trunk wash (onset)  
Urine sample analysis results: ( 9:00.0)  
ANTECH DIAGNOSTICS  
Accession No.     Doctor     Owner     Pet Name     Received  
CHBC19850628    BURNS     ELEPHANT   102767     11/12/2007  
Species     Breed     Sex     Pet Age     Reported  
Elephant                    11/19/2007 01:42 PM  
Test Requested     Results     Reference Range     Units  
CAMPYLOBACTER  
Final Report     11/17/2007  
                  NEGATIVE FOR CAMPYLOBACTER IN 72 HOURS.  
CULTURE (ANAEROBIC)  
Preliminary #1     11/17/2007  
                  NO ANAEROBES ISOLATED IN 3 DAYS.  
Preliminary #2     11/18/2007  
                  POSSIBLE ANAEROBES ISOLATED.  
Final Report     11/19/2007  
Organism #1  
                  Bacteroides species(not fragilis) Sensitivity testing is not  
                  valid for anaerobes. Drugs of choice: Amoxicillin/Clavulanic Acid,  
                  Chloramphenicol, Clindamycin, Piperacillin, and Metronidazole.  
                  MODERATE GROWTH  
CULTURE (FECES)  
Source     Feces  
Preliminary #1     11/15/2007

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12.Nov     Mixed gastrointestinal flora isolated.  
          Preliminary #2     11/16/2007  
          Mixed gastrointestinal flora isolated.  
          Final Report     11/17/2007  
          Mixed gastrointestinal flora isolated.  
          NEGATIVE FOR SALMONELLA AND SHIGELLA  
          SENSITIVITIES NOT INDICATED  
          National Veterinary Services Laboratory, Ames, Iowa  
          NVSL ID: 1796753  
          Case#: 081477  
          Mycobacterial culture (trunk wash): No isolation made (CUL)  
          Annual exam and preventative health procedures.  
          S Overall physical exam from trunk to tail shows a normal young  
          elephant. Teeth are present and in wear.  
          O Blood was collected yesterday. Urine collected via floor catch.

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Temperature of a freshly defecated fecal pile is 97.7F. Auscultation of the chest revealed a heart rate of 60 and normal lung sounds. Auscultation of the abdomen reveals an occasional gurgling GI sound. Swab of the center of a fecal ball collected for culture.

A Elephant is in good general health.

P Photos postponed due to rainy weather. Take fecal cultures and trunk washes today and for the next 3 days. Take Xrays tomorrow. (RBB)

Annual trunk washes obtained 12 - 14 Nov 07. Samples frozen until shipment. (VRC)

13.Nov PROBLEM: radiograph - all limbs

ANTECH DIAGNOSTICS

Accession No.	Doctor	Owner	Pet Name	Received
CHBC19887922	BURNS	NOT STATED	ELEPHANT	11/13/2007
Species	Breed	Sex	Pet Age	Reported
Elephant			11/19/2007 01:48 PM	
Test Requested	Results	Reference Range	Units	

CAMPYLOBACTER

Final Report 11/17/2007

NEGATIVE FOR CAMPYLOBACTER IN 72 HOURS.

CULTURE (FECES)

Source Feces

Preliminary #1 11/15/2007

Mixed gastrointestinal flora isolated.

Preliminary #2 11/16/2007

Mixed gastrointestinal flora isolated.

Final Report 11/17/2007

Mixed gastrointestinal flora isolated.

NEGATIVE FOR SALMONELLA AND SHIGELLA

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Medical History Report - Summary for Individual Specimen  
LOUISVILLE ZOOLOGICAL GARDEN

LOXODONTA AFRICANA (no subsp)	Sex: Male	Acc. #: 102767
African elephant	Age: 1Y 3M 29D	Birth: 18.Mar.2007
Name: SCOTTY		

.....2007....

13.Nov SENSITIVITIES NOT INDICATED

CULTURE (ANAEROBIC)

Preliminary #1 11/17/2007

NO ANAEROBES ISOLATED IN 3 DAYS.

Preliminary #2 11/18/2007

POSSIBLE ANAEROBES ISOLATED.

Final Report 11/19/2007

Organism #1

Bacteroides species(not fragilis) Sensitivity testing is not valid for anaerobes. Drugs of choice: Amoxicillin/Clavulanic Acid, Chloramphenicol, Clindamycin, Piperacillin, and Metronidazole.

MODERATE GROWTH

National Veterinary Services Laboratory, Ames, Iowa

NVSL ID: 1796754

MedARKS%20Reports[1]

Case#: 081478

Mycobacterial culture (trunk wash): No isolation made (CUL)  
Xrays taken of legs today as a rough measure of proper bone density.  
Although all but one were over exposed. Normal bone density and a  
defined cortex can be seen. (RBB)

14.Nov PROBLEM: trunk wash (resolved)

ANTECH DIAGNOSTICS

Accession No.	Doctor	Owner	Pet Name	Received
INBC03751191	BURNS	ELEPHANT	102767	11/15/2007

Species	Breed	Sex	Pet Age	Reported
Elephant			11/21/2007 03:05 PM	

Test Requested	Results	Reference Range	Units
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CAMPYLOBACTER

Campylobacter Only 11/19/2007

NEGATIVE FOR CAMPYLOBACTER IN 72 HOURS.

CULTURE (ANAEROBIC)

Preliminary #1 11/20/2007

NO ANAEROBES ISOLATED IN 4 DAYS.

Final Report 11/21/2007

Organism #1

Bacteroides species(not fragilis) Sensitivity testing is not  
valid for anaerobes. Drugs of choice: Amoxicillin/Clavulanic Acid,  
Chloramphenicol, Clindamycin, Piperacillin, and Metronidazole.

ABUNDANT GROWTH

CULTURE (FECES)

Source Feces

Preliminary #1 11/17/2007

Mixed gastrointestinal flora isolated.

Preliminary #2 11/18/2007

Mixed gastrointestinal flora isolated.

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Medical History Report - Summary for Individual Specimen  
LOUISVILLE ZOOLOGICAL GARDEN

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LOXODONTA AFRICANA (no subsp)	Sex: Male	Acc. #: 102767
African elephant	Age: 1Y 3M 29D	Birth: 18.Mar.2007
Name: SCOTTY		

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.....2007...

14.Nov Final Report 11/19/2007

NEGATIVE FOR SALMONELLA AND SHIGELLA

National Veterinary Services Laboratory, Ames, Iowa

NVSL ID: 1796755

Case#: 081479

Mycobacterial culture (trunk wash): No isolation made (CUL)

15.Nov S Blood and urine results from samples collected 11-12 November  
2007.

O

A CBC is normal. Chemistries are normal except for elevated  
amylase (this test has poor specificity, unclear clinical  
significance). Alkaline phosphatase is high due to elephant's young  
age. Urinalysis reveals alkaline, 1.013 specific gravity urine, and

MedARKS%20Reports[1]

- an unremarkable sediment.  
P Await remaining test results. (ZSG)
- 25.Nov Blood sample:  
26.Nov Results of Johne's radiometric culture of feces collected 25  
September 2007 is NEGATIVE. (ZSG)
- 30.Nov PROBLEM: PHOTOGRAPH  
Photos taken as part of annual evaluation. (RBB)
- 2.Dec PROBLEM: blood collection  
9.Dec PROBLEM: blood collection  
10.Dec Blood sample: (EDTA) ( 9:15.0) Hematology results.  
WBC:15.80 \*10<sup>3</sup>/UL; HCT: 41.0%;  
CBC from blood collected today shows normal results. Continue  
collecting blood as a training tool and to add data to establish  
better normals for young African elephants.  
EMC serology on blood collected 11 Nov 07 is negative (1:32).  
NVSL ID SAMPLE ID ANIMAL ID ELEPH SERUM VN for EMC  
1796895 1 100479 Negative 1:32  
1796896 2 101038 Negative 1:32  
1796897 3 102767 Negative 1:32 (RBB)
- 16.Dec PROBLEM: blood collection  
23.Dec PROBLEM: blood collection

.....2008...

- 6.Jan PROBLEM: blood collection  
16.Jan PROBLEM: abnormal stool  
17.Jan Staff reports Scotty defecated a couple of fecal balls that were  
entirely composed of fresh sand. Staff has having Scotty roll to  
the side more than normal as part of training progress.  
S Lateral Xrays of abdomen taken in attempt to determine if sand is

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Medical History Report - Summary for Individual Specimen  
LOUISVILLE ZOOLOGICAL GARDEN

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LOXODONTA AFRICANA (no subsp)      Sex: Male      Acc. #: 102767
African elephant                   Age: 1Y 3M 29D Birth: 18.Mar.2007
Name: SCOTTY
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.....2008...

- 17.Jan present. None of the Xrays showed any penetration of xrays through  
the elephant onto the cassette. We were near the max output for the  
machine.  
O  
A There are no agreed upon methods to aid in moving sand out of the  
GI tract in elephants or horses. Bran, mineral oil, psillium, beet  
pulp have all been used per emails from Indianapolis Zoo and the  
International Zoo Vet Forum  
P Scotty is already getting a scoop of bran each night as this is a  
tool many elephant managers use for sand. Elephant supervisor is  
not worried at this point but will monitor Scotty closely. If  
imaging is needed, we may need to ask Dr. Bennett to help with

MedARKS%20Reports[1]

- 20.Jan either an Xray or other imaging. (RBB)  
 PROBLEM: monocytosis  
 Blood sample: (EDTA) ( 9:30.0) Hematology results.  
 WBC:14.00 \*10<sup>3</sup>/UL; HCT: 43.0%;  
 CBC from blood collected today shows a possible monocytosis (30%, 5534). This calf has had elevated monocytes in the past. Calf recently passed some sand in its feces. Monitor this count in future collections. (RBB)
- 27.Jan Blood sample: (EDTA) ( 9:30.0) Hematology results.  
 WBC:15.30 \*10<sup>3</sup>/UL; HCT: 42.0%;  
 CBC from blood collected today shows normal results. Possible monocytosis from last week is resolved. (RBB)
- 4.Feb S Mycobacterial culture results from serial trunk washes collected 12, 13, and 14 November 2007.  
 O No isolation made.  
 A  
 P Retest annually. (ZSG)
- 7.Feb Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.  
 NO PARASITES SEEN
- 17.Feb Blood sample: (EDTA) ( 9:30.0) Hematology results.  
 WBC:14.20 \*10<sup>3</sup>/UL; HCT: 40.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 22.Feb S Serum vitamin E results from blood collected 25 November 2007.  
 O 2.43 mcg/ml  
 A Value is interpreted as okay. Acceptable vitamin E levels in elephants are considered to be 0.5 - 1.5 mcg/ml, however hypervitaminosis E is unlikely as the acceptable range seen in most domestic adult mammals is between 2.0 - 4.0 mcg/ml.  
 P Recheck level yearly. (ZSG)

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Medical History Report - Summary for Individual Specimen  
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African elephant	Age: 1Y 3M 29D	Birth: 18.Mar.2007
Name: SCOTTY		

.....2008...

- 24.Feb Blood sample: (EDTA) ( 9:30.0) Hematology results.  
 WBC:16.50 \*10<sup>3</sup>/UL; HCT: 39.0%;  
 CBC from blood collected today shows a possible elevated WBC (16,500, 2.2 s.d.) and a possible monocytosis (4950). Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 2.Mar Blood sample: (EDTA) ( 9:30.0) Hematology results.  
 CBC from blood collected today shows normal results. Last weeks elevated WBC and monocytosis resolved. (RBB)
- 9.Mar Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.

MedARKS%20Reports[1]

- WBC:12.10 \*10<sup>3</sup>/UL; HCT: 42.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 17.Mar Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.  
 WBC:12.40 \*10<sup>3</sup>/UL; HCT: 43.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 23.Mar Blood sample: (EDTA) Hematology/Chemistry/Serology results.  
 WBC:12.90 \*10<sup>3</sup>/UL; HCT: 42.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 30.Mar PROBLEM: blood collection  
 Blood sample: (EDTA) Hematology results.  
 Blood collected for routine CBC was appropriate only for a differential. Continue weekly blood collection. (RBB)
- 7.Apr Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.  
 WBC:11.60 \*10<sup>3</sup>/UL; HCT: 40.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 20.Apr Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.  
 WBC:19.60 \*10<sup>3</sup>/UL; HCT: 42.0%;  
 CBC from today shows an increase in WBC (19,600, 3.3 s.d.) and a monocytosis (4,900, 2 s.d.) compared to isis norms for adult elephants. Compared to data for elephants 8 days to 9 yrs, the WBC is normal but there is still a monocytosis. Check with staff on how Scotty is doing. (RBB)
- 23.Apr Staff reports Scotty is doing well. Monitor CBC. (RBB)
- 27.Apr Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.

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Medical History Report - Summary for Individual Specimen  
 LOUISVILLE ZOOLOGICAL GARDEN

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LOXODONTA AFRICANA (no subsp)	Sex: Male	Acc. #: 102767
African elephant	Age: 1Y 3M 29D	Birth: 18.Mar.2007
Name: SCOTTY		

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.....2008....

- 27.Apr HCT: 43.0%;
- 4.May Blood sample: (Heparin) ( 9:30.0) Hematology/Chemistry/Serology result  
 WBC:14.40 \*10<sup>3</sup>/UL; HCT: 43.0%;  
 CBC from blood collected today shows normal results. Continue collecting blood as a training tool and to add data to establish better normals for young African elephants. (RBB)
- 11.May Blood sample: (EDTA) ( 9:35.0) Hematology/Chemistry/Serology results.  
 WBC:14.30 \*10<sup>3</sup>/UL; HCT: 39.0%;  
 CBC from blood collected today shows normal results. (RBB)

MedARKS%20Reports[1]

- 18.May Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.  
WBC:13.10 \*10<sup>3</sup>/UL; HCT: 39.0%;  
CBC from blood collected today shows a possible monocytosis (5,109, 2.1 s.d.). This calf has periodically had higher than ISIS norm monocyte counts but the count typically returns to normal. Monitor. (RBB)
- 25.May Blood sample: (EDTA) ( 9:30.0) Hematology/Chemistry/Serology results.  
WBC:14.50 \*10<sup>3</sup>/UL; HCT: 40.0%;  
Low volume sample; Quantity not sufficient for chemistry sample  
CBC from blood collected today shows a monocytosis (5945 2.6 s.d.).  
consult with staff how calf is doing. (RBB)
- 1.Jun CBC from blood collected today shows a leukocytosis (25,800, 5 s.d.), lymphocytosis (13,674, 3.46 s.d.), and monocytosis (5945 2.6 s.d.). Consult with staff how calf is doing. (RBB)
- 9.Jun CBC from blood collected today shows a monocytosis (5500 2.4 s.d.).  
consult with staff how calf is doing. (RBB)
- 13.Jun Staff reports calf recently shed the tooth bud and now has a new tooth. A tusk is likely soon to erupt as it can be palpated. This may have been associated with changes in the CBC earlier this month. Monitor. (RBB)
- 15.Jun Blood collected today was clotted. (RBB)
- 23.Jun CBC from blood collected today shows a monocytosis (5244 2.25 s.d.).  
Monitor. (RBB)
- 30.Jun CBC from blood collected today shows normal results. (RBB)
- 2.Jul PROBLEM: abrasion - PERIORBITA (LEFT)  
S Keeper Brian reports that while out in the yard this morning, elephant calf received a wound from herd mate (Punch) over the left eye. Staff did not witness the incident but heard the calf scream and suspect wound is from a head butt or tusk. Visual exam reveals a superficial abrasion over the left eye. The left eye itself is normal. Palpation suggests no orbital fracture.  
O

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African elephant	Age: 1Y 3M 29D	Birth: 18.Mar.2007
Name: SCOTTY		

.....2008...

- 2.Jul A  
P Elephant staff will keep wound clean and monitor. No need for topical treatment. (ZSG)
- 6.Jul CBC from blood collected today shows more WBC than normal (18,700, 3.0 s.d.) but the differential is normal. Monitor. (RBB)

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