

MIAMI METROZOO MEDICAL RECORD

DATE OF
ACQUISITION
OR BIRTH 1975

ANIMAL ELEPHANT, AFRICAN

ACCES.NO. 270 stbk#146 SEX 0.1 HOUSE NAME MABEL

track estrous cycles in preparation for possible breeding next year (?). BLOOD/save serum only.

05/14/98 Per USDA mandate, each elephant has been conditioned to allow saline to be instilled into their trunk and then to blow it back out into a plastic bag ("trunk washing" technique) for mycobacterial cultures. PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (5/12, 5/13, & today) - frozen samples from 5/12 & 13, and refrig'd sample from 5/14 sent overnight to NVSL as per protocol, to complete ANNUAL TB TESTING requirement. Elephants well-behaved and performed sampling without problems.

06/03/98 BLOOD/CBC, chem screen, serum saved (opportunistic sampling while blood drawn for hormonal monitoring).

06/04/98 Keepers had noted that Mabel had a few small polyps near the rim of her vagina. OBS/about a half-dozen small narrow-based polyps in a cluster at the mucocutaneous junction of her vagina/vulva; none larger than ~1.5cm diameter; no ulcers/erosions/vesicles noted; cannot palpate any abN's more proximally in tract, but Mabel not being highly cooperative so not sure of this... BIOPSY/excised (snipped with scissors) a single ~1cm diameter polyp off at base; surface fully epithelialized, partially pigmented and "cobbled" in appearance - not papilliferous; submitted in toto in formalin for histopath (biopsy #B98-7).

06/08/98 Phone report on bx: "fibropapilloma" (probably viral, benign).

01/28/99 BLOOD/whole blood drawn in EDTA (~40ml) for DNA study & banking by D.Schmitt (Missouri St. Univ.).

05/06/99 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (5/4, 5/5, & today) - frozen samples from 5/4 & 5, and refrig'd sample from 5/6 sent overnight to NVSL as per USDA-mandated-protocol, to complete ANNUAL TB TESTING requirement. Additionally, BLOOD/CBC, chem screen, serum protein electrophoresis, save serum - collected yesterday for screening purposes (when bled for hormone monitoring). Elephant well-behaved and performed sampling without problems.

05/09/00 Mabel turned up stiff & lame on her RF this am - had been placed in different stall from usual overnight due to beginning construction (sandblasting/painting) in barn yesterday. Some minor swelling of "ankle" region and stiff on carpus. Probably just "twisted" it - no heat or obvious sensitivity on palpation; keeper reports that he went over foot twice very thoroughly and found no lesions (including punctures). If still lame tomorrow, may try bute for a few days.

05/10/00 Still a little stiff & lame. RX/phenylbutazone 6 Gms PO BID x3-5 days.

06/07/00 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (6/5,

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6/6, & today) - frozen samples from 6/5 & 6, and partially frozen sample from 6/7 sent overnight to NVSL as per USDA-mandated-protocol, to complete ANNUAL TB TESTING requirement. Additionally, BLOOD/CBC, chem screen, save serum - collected this morning for surveillance purposes (when bled for hormone monitoring).

06/12/00 NVSL reports that one of Mabel's trunk wash samples leaked in shipment and they request that we repeat all of the samples for her when Dahlip is tested next.

07/19/00 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (7/17, 7/18, & today) - frozen samples from 7/17 & 18, and partially frozen sample from 7/19 sent overnight to NVSL as per USDA-mandated-protocol (repeat testing - see 6/12).

11/14/00 BLOOD/collected whole blood in heparin and some serum today for "iron assays" (D.Paglia, UCLA).

06/20/01 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (6/18, 6/19, & today) - frozen samples from 6/18 & 19, and partially frozen sample from 6/20 sent overnight to NVSL as per USDA-mandated-protocol (very well-behaved with conditioned trunk-wash procedures). BLOOD/CBC, chem screen, save serum (collected with trunk-wash routine, for annual check). COMT/no signs of ill-health, no problems reported.

06/12/02 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (6/10, 6/11, & today) - frozen samples sent overnight to NVSL as per USDA-mandated-protocol (very well-behaved with conditioned trunk-wash procedures).

06/25/02 BLOOD/CBC, chem screen; save serum. COMT/annual check of elephants - all reported to be doing well, no problems recognized.

03/12/03 BLOOD/sent banked sample of serum in for West Nile virus serology (survey of elephant collection) - results all negative. - CLM

05/13/03 BLOOD/CBC, chem screen, save serum. COMT/in addition to routine weekly collection for hormone assays, blood was collected today for annual check during TB-testing procedures (see below); keepers report no apparent health problems at this time and elephant appears to be in good health and overall condition. - CLM

05/14/03 ANNUAL TB TESTING: PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (5/12, 5/13, & today) - frozen samples from 5/12 & 13, and partially frozen sample from 5/14 sent overnight to NVSL as per USDA-mandated-protocol (well-behaved for collection routine). - CLM

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06/04/03 WT=7990 lbs. SMM
 09/16/03 WT=8200 lbs.
 12/26/03 WT=8260 lbs.
 05/07/04 Trying to meet AZA demands that each elephant has baseline foot radiographs on file: borrowed portable xray machine from Dr. Templeton for part of day. XRAY/oblique plantar-dorsal views of each digit (corresponding to toenails) on both hindfeet (6 total) [kvp=48, mas=1.6] COMT/Mabel a too nervous to allow front feet to be done today, but good for hindfeet (in squeeze)-behaved; stopped with these for now, will plan to do front feet at another date, after a bit more conditioning to get her ready.
 - CLM
 05/21/04 Now Mabel understands what we want her to do with her front feet and she's eager to please. XRAY/oblique dorsal-palmar views of each digit on both forefeet (8 toes total) [kvp=48 mas=1.6 for all but 4th digits, which needed deeper penetration: kvp=52-56]. - CLM
 06/08/04 ANNUAL TB TESTING: PROC/collected 40-50ml of "trunk wash" sample (after overnight water withholding on 6/6 and 6/7 and two hour withholding on 6/8; 60ml sterile saline were placed in each trunk) for mycobacterial culture on each of three consecutive mornings (6/6, 6/7 & today 6/8); all samples were immediately frozen, and shipped overnight on ice to NVSL, as per USDA-mandated-protocol. All elephants were well-behaved for collection routine. BLOOD/CBC, chem. screen, save serum; blood taken for annual check. SMM
 06/09/04 Dr. Dennis Schmitt at Metrozoo today to perform ultrasonographic assessments of each elephant's reproductive tract. Mabel has a normal reproductive tract (including ovaries) as far as can be detected. Written report will be added to her record when received. - CLM
 06/17/04 WT=8414 lbs.
 07/14/04 All elephants due for tetanus booster. VAX/tetanus toxoid 2.0ml IM (left caudal thigh). - CLM
 11/24/04 Has hand-sized soft swelling in left caudal thigh, not warm but somewhat sensitive to touch; keepers report that it was there yesterday at closeout but not before that. Elephants were rough-housing in the pool yesterday - may be a tusk-jab site. Watch only for now. - CLM
 01/17/05 Keepers noticed stiff on RF leg this morning when let out on paddock. Observed her on paddock: reluctant to move, and when does, walks stiffly on RF w/o flexing joints. Watch for now... possibly from cold temps. SMM
 01/18/05 Keepers report Mabel walking better by last night; did not observe any limping today. SMM
 01/26/05 WT=8150 lbs.
 02/11/05 Apparently shattered the very tip of one of her tusks overnight in the barn (cold spell, everybody locked in overnight) - keepers picked up a few of the shards (sent to USDI, Forensics Lab) and report that there are no longitudinal cracks extending up toward

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the sulcus, and that the pulp canal is not exposed. Should not present a problem for now, unless this happens again. - CLM

Medical History Report - Summary for Individual Specimen
MIAMI METROZOO

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Scientific Name: **LOXODONTA AFRICANA AFRICANA** Accession #: 270
Common Name: South African bush elephant Female
Name: **MABEL** Birth: 31.Dec.1976 (Estimated)
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.....2000....

24.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

23.Mar Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

22.May Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

7.Jun Blood sample: (EDTA) (10:00.0) Hematology/Chemistry/Serology results.
WBC:11.40 *10³/UL; HCT: 42.0%; BUN:11 MG/DL;

25.Jul Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

26.Sep Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

14.Nov Blood sample: Chemistry results.

11.Dec Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

.....2001....

23.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

20.Mar Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

29.May Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

20.Jun Blood sample: (EDTA) Hematology/Chemistry/Serology results.
WBC:9.90 *10³/UL; HCT: 46.0%; BUN:14 MG/DL;

24.Jul Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

25.Sep Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

28.Nov Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.

Medical History Report - Summary for Individual Specimen
MIAMI METROZOO

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Common Name: South African bush elephant             Female
Name: MABEL                                           Birth: 31.Dec.1976 (Estimated)
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.....2001....

28.Nov NO PARASITES SEEN

.....2002....

22.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

19.Mar Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

14.May Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

25.Jun Blood sample: (EDTA) Hematology/Chemistry/Serology results.
WBC:10.50 *10³/UL; HCT: 44.0%; BUN:10 MG/DL;

23.Jul Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

25.Sep Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

20.Nov Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

.....2003....

29.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

11.Feb Blood sample:

27.Mar Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

13.May Blood sample: (EDTA) Hematology/Chemistry/Serology results.
WBC:8.80 *10³/UL; HCT: 44.0%; BUN:13 MG/DL;

30.May Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

31.Jul Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

16.Sep Weight: 3721 Kg (8201 Lb)

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Name: MABEL                                           Birth: 31.Dec.1976 (Estimated)
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.....2003...

- 1.Oct Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 19.Nov Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 25.Dec Weight: 3748 Kg (8261 Lb)

.....2004...

- 27.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 23.Mar Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 25.May Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 8.Jun Blood sample: (EDTA) Hematology/Chemistry/Serology results.
WBC:10.10 *10³/UL; HCT: 44.0%; BUN:9 MG/DL;
- 17.Jun Weight: 3818 Kg (8415 Lb)
- 14.Jul Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
Purpose/Problem: SuperTet w/havlogen
Vaccination: TETANUS TOXOID 2.0ml IM
Clinical note recorded. (CLM)
- 29.Sep Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN
- 17.Nov Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN

.....2005...

- 26.Jan Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
NO PARASITES SEEN Weight: 3698 Kg (8150 Lb)

Clinical Pathology Report - Specimen Spreadsheet
 MIAMI METROZOO

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 Scientific Name: **LOXODONTA AFRICANA AFRICANA** Accession #: 270
 Common Name: South African bush elephant Female
 Name: MABEL Birth: 31.Dec.1976 (Estimated)
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Date	7.Jun.2000	14.Nov.2000	20.Jun.2001
Time	10:00.0	:	:
Restraint	Manual	Manual	Manual
Health	Normal	Normal	Normal
Fasting	< 8 hours	< 8 hours	< 8 hours
Activity	Calm	Active	Active
Hematology laboratory	U OF M		U OF M
Hematology anticoagulant	EDTA		EDTA
Hematology quality problems	none		none

WBC	*10 ³ /UL	11.4	9.9
RBC	*10 ⁶ /UL	3.23	3.27
HGB	GM/DL	13.9	14.2
HCT	%	42	46
SEGS	% (*10 ³ /UL)	45 (5.130)	57 (5.643)
LYMPHOCYTES	% (*10 ³ /UL)	53 (6.042)	37 (3.663)
MONOCYTES	% (*10 ³ /UL)	2 (0.228)	4 (0.396)
EOSINOPHILS	% (*10 ³ /UL)	0	2 (0.198)
BASOPHILS	% (*10 ³ /UL)	0	0

Chemistry laboratory	U OF M	PAGLIA	U OF M
Chemistry sample:	Serum	Serum	Serum
Chemistry quality problems	none	none	none

ALBUMIN (E)			
GLUCOSE	MG/DL	87	86
BUN	MG/DL	11	14
CREAT.	MG/DL	1.4	1.4
URIC ACID	MG/DL	0.2	0.2
CA	MG/DL	10.8	11.1
PHOS	MG/DL	5.2	5.0
NA	MEQ/L	136	135
K	MEQ/L	4.8	4.5
CL	MEQ/L	88	89
IRON	MCG/DL		62
CHOL	MG/DL	59	74
TRIG	MG/DL	60	77
T.PROT. (C)	GM/DL	7.8	7.7
ALBUMIN (C)	GM/DL	3.4	3.4
GLOBULIN (C)	GM/DL	4.4	4.3
AST (SGOT)	IU/L	18	12
ALT (SGPT)	IU/L	16	16
T. BILLI.	MG/DL	0.3	0.2
D. BILLI	MG/DL	0.1	0.2

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AMYLASE	U/L	398	404
ALK.PHOS.	IU/L	97	95
LDH	IU/L	1262	1086
CPK	IU/L	149	120
CO2	MMOL/L	25	27
GGT	IU/L	13	12
FE SATURATN.		28.6	

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Common Name: South African bush elephant
Name: **MABEL**

Accession #: 270
Female
Birth: 31.Dec.1976 (Estimated)

Date	25.Jun.2002	11.Feb.2003	13.May.2003
Time	:	:	:
Restraint	Manual	Manual	Manual
Health	Normal	Normal	Normal
Fasting	< 8 hours	< 8 hours	< 8 hours
Activity	Active	Active	Calm
Hematology laboratory	U OF M		U OF MIAMI
Hematology anticoagulant	EDTA		EDTA
Hematology quality problems	none		none
WBC	*10 ³ /UL 10.5		8.8
RBC	*10 ⁶ /UL 3.17		3.50
HGB	GM/DL 12.8		15.1
HCT	% 44		44
SEGS	% (*10 ³ /UL) 39 (4.095)		34 (2.992)
LYMPHOCYTES	% (*10 ³ /UL) 61 (6.405)		52 (4.576)
MONOCYTES	% (*10 ³ /UL) 0		13 (1.144)
EOSINOPHILS	% (*10 ³ /UL) 0		1 (0.088)
BASOPHILS	% (*10 ³ /UL) 0		
NRBC	/100 WBC		0
PLATE. EST.			ADEQ
ANISOCYTOSIS			SLT
TARGET CELLS			SLT
Chemistry laboratory	U OF M	CORNELL DX'C L	U OF MIAMI
Chemistry sample:	Serum	Serum	Serum
Chemistry quality problems	none	none	none
ALBUMIN (E)			
GLUCOSE	MG/DL 77		88
BUN	MG/DL 10		13
CREAT.	MG/DL 1.4		1.5
URIC ACID	MG/DL <0.2		<0.2
CA	MG/DL 10.0		11.2
PHOS	MG/DL 5.0		5.8
NA	MEQ/L 127		132
K	MEQ/L 4.6		4.8
CL	MEQ/L 86		84
CHOL	MG/DL 83		94
TRIG	MG/DL 51		76
T.PROT. (C)	GM/DL 7.8		8.3
ALBUMIN (C)	GM/DL 3.6		4.2
GLOBULIN (C)	GM/DL 4.2		4.1
AST (SGOT)	IU/L 22		15

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ALT (SGPT)	IU/L	19	17
T. BILI.	MG/DL	0.1	0.1
D. BILI	MG/DL	0.1	0.0
AMYLASE	U/L	324	313
ALK.PHOS.	IU/L	80	81
LDH	IU/L	1268	1201
CPK	IU/L	175	111
CO2	MMOL/L	28	27
GGT	IU/L	15	15
WNV AB			NEG

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Common Name: South African bush elephant
Name: MABEL

Accession #: 270
Female
Birth: 31.Dec.1976 (Estimated)

Date 8.Jun.2004
Time :
Restraint Manual
Health Normal
Fasting < 8 hours
Activity Active
Hematology laboratory U OF MIAMI
Hematology anticoagulant EDTA
Hematology quality problems none

WBC *10³/UL 10.1
RBC *10⁶/UL 3.09
HGB GM/DL 14.1
HCT % 44
SEGS % (*10³/UL) 63 (6.363)
LYMPHOCYTES % (*10³/UL) 33 (3.333)
MONOCYTES % (*10³/UL) 1 (0.101)
EOSINOPHILS % (*10³/UL) 3 (0.303)
PLATE. EST. ADEQ

Chemistry laboratory U OF MIAMI
Chemistry sample: Serum
Chemistry quality problems none

ALBUMIN (E)
GLUCOSE MG/DL 89
BUN MG/DL 9
CREAT. MG/DL 1.4
URIC ACID MG/DL <0.2
CA MG/DL 11.0
PHOS MG/DL 3.1
NA MEQ/L 134
K MEQ/L 4.8
CL MEQ/L 88
CHOL MG/DL 93
TRIG MG/DL 27
T.PROT. (C) GM/DL 8.1
ALBUMIN (C) GM/DL 3.8
GLOBULIN (C) GM/DL 4.3
AST (SGOT) IU/L 30
ALT (SGPT) IU/L 19
T. BILI. MG/DL 0.2
D. BILI MG/DL 0.1
AMYLASE U/L 279

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ALK.PHOS.	IU/L	70
LDH	IU/L	1447
CPK	IU/L	1011
CO2	MMOL/L	32
GGT	IU/L	9