



Eastern Black Rhino EEP

(Diceros bicornis michaeli)

Annual Studbook Report 2012

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Eastern Black Rhino EEP

Diceros bicornis michaeli

Annual Studbook Report 2012

(Data current as of December 31, 2012)

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Species Committee members: Andreas Ochs (Berlin Zoo), Adrian Harland (Howletts/Port Lympne), Robert Zingg (Zurich), Mati Kaal (Tallin Zoo), Gerd Nötzold (Leipzig)

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1. Introduction

Vision and target for the Black Rhino EEP population:

- 1) Ensure a healthy and sustainable EAZA population to fulfil the needs of EAZA zoos.
- 2) Manage the population to achieve a >5% growth rate per year.
- 3) Work closely with the African Rhino Specialist Group (AfRSG) and Governments to make Eastern Black Rhino available for return to Africa to supplement populations where needed.

All participants must follow the EAZA EEP rules. Especially that all animals and their offspring are available to the EEP. The receiving institution will normally be responsible for the costs of the transfer, unless a pre agreed local arrangement is made between the institutions. It is the responsibility of the sending institution to ensure that the facilities and level of husbandry at the receiving institution are appropriate. Please note that there is currently no restriction on breeding unrelated animals (if you are not sure whether your pairings are related please contact me).

Although this EEP focuses on the Eastern subspecies *Diceros bicornis michaeli*, a pair of the Southern African subspecies, *D.b.minor* at Frankfurt Zoo is included within the studbook listings. It should be noted that these two animals are maintained and managed separately to the *D.b.michaeli*.

This studbook report gives an overview of the Black Rhino EEP for 2012, including current population, demographic and genetic overviews. It also provides recommendations for all collections and for transfers.

All data and figures used in this report are produced by, or taken from, PMx Version 1.0 and SPARKS Version 1.65.

2. EEP Annual Report 2012

2.1 Status and Development Table EAZA Collections

Institution	Status (2012-01-01)			Births			DNS			Transfer EAZA in			Transfer EAZA out			Transfer Non-EAZA in			Transfer Non-EAZA out			Deaths			Status (2012-12-31)					
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U			
Berlin Zoo (Germany)	2	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0
Chester (UK)	3	6	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	6	0
Ebeltoft (Denmark)	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
Fontaine (France)	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
Frankfurt (Germany)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Hannover (Germany)	1	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
Howletts (UK)	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
Koln (Germany)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Krefeld (Germany)	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
Leipzig (Germany)	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
Magdeburg (Germany)	1	4	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0
Paignton (UK)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Pontscorff (France)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Port Lympne (UK)	4	12	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	4	11	0
Zurich (Switzerland)	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
	22	43	0	1	4	0	0	0	0	3	1	0	3	1	0	0	0	0	1	2	0	1	2	0	Total					
																							21	43	0					
																							Cross-check							
																							21	43	0					

NB. Frankfurt Zoo holds 1.1 *Diceros bicornis minor*

2.2 Status and Development Table Non-EAZA Collections

Institution	Status (2012-01-01)			Births			DNS			Transfer EAZA in			Transfer EAZA out			Transfer Non-EAZA in			Transfer Non-EAZA out			Deaths			Status (2012-12-31)					
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U			
Arcachon (France)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Dvur Kralove (Czech Republic)	6	8	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	5	8	0
	7	9	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	Total		
																							6	9	0					
																							Cross-check							
																							6	9	0					

3. Population Overview

3.1 Current Status

As of 31.12.2012 there were 21.43 (64) animals within the EEP, held in 15 collections. 1.1 of these are of the Southern subspecies *Diceros bicornis minor* and are held at Frankfurt Zoo. These are excluded from the demographic and genetic overview. There are 20.42 (62) *D. b michaeli*. There are an additional 6.9 (15) *D. b michaeli* in two non-EAZA zoos within Europe. These are not part of the EEP and therefore are excluded from the population analysis.

3.2 Events During 2012

Births - there were 1.4 births, continuing the birth ratio bias towards females:

- 0.1 born at Berlin Zoo
- 1.1 born at Chester (1.0 still born)
- 0.1 born at Port Lympne
- 0.1 born at Magdeburg (still born)

Deaths – there were 1.2 deaths:

- 0.1 at Magdeburg (still born calf)
- 1.0 at Chester (stillborn calf)
- 0.1 at Pont-Scorff (20 year old Siwa)

Transfers – there were 3.1 transfers within the EEP:

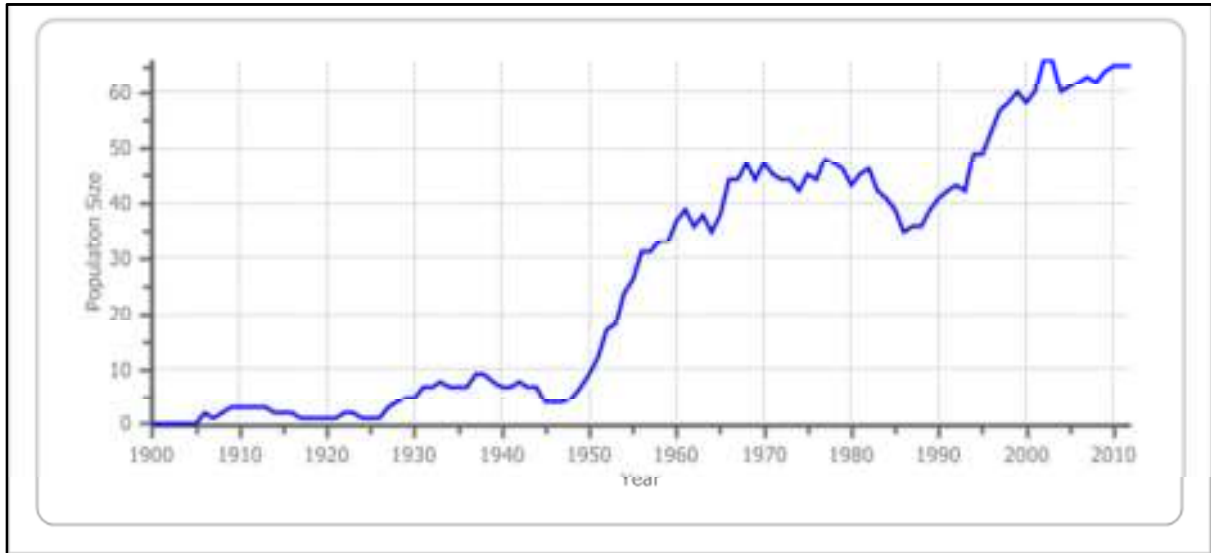
- Female Bashira from Chester to Ebeltoft
- Male Madiba from Magdeburg to Hannover
- Male Asani from Chester to Lympne
- Male Kifaru from Hannover to Magdeburg

Additionally 1.2 rhinos were transferred out of the EEP (Zawadi, Grumeti and Mondulu, from Port Lympne to Mkomazi National Park in Tanzania, Africa).

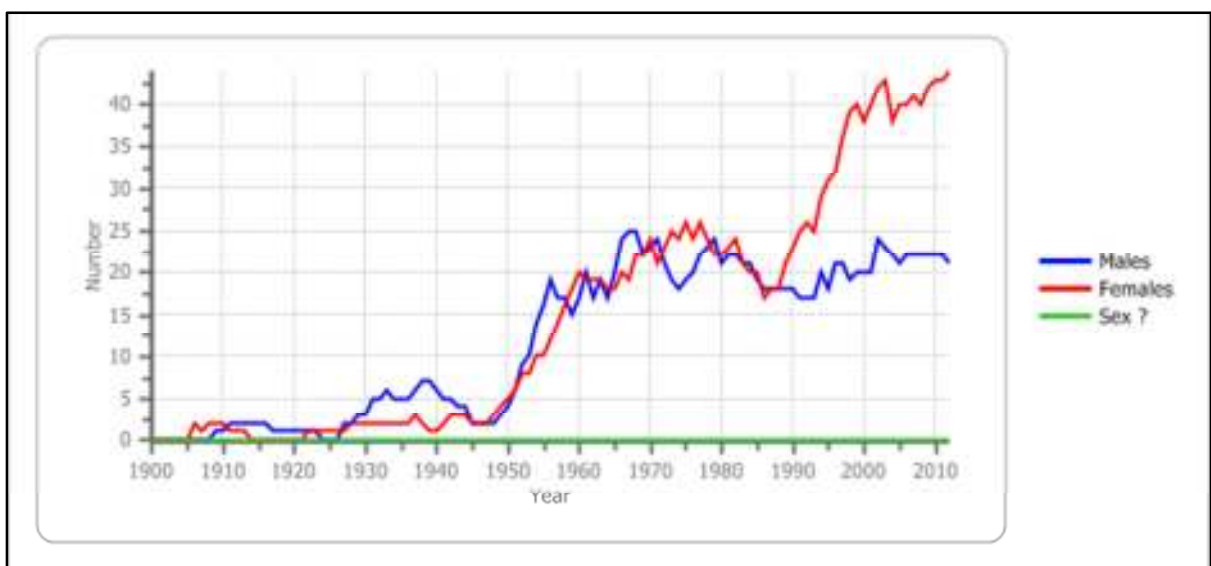
4. Demographic Overview

4.1 Census Graphs

Graph 1: Census graph for the EEP population of *D. b. michaeli* since 1900.

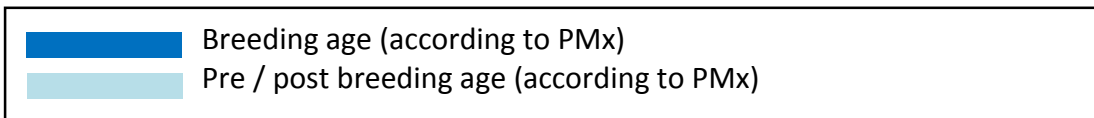
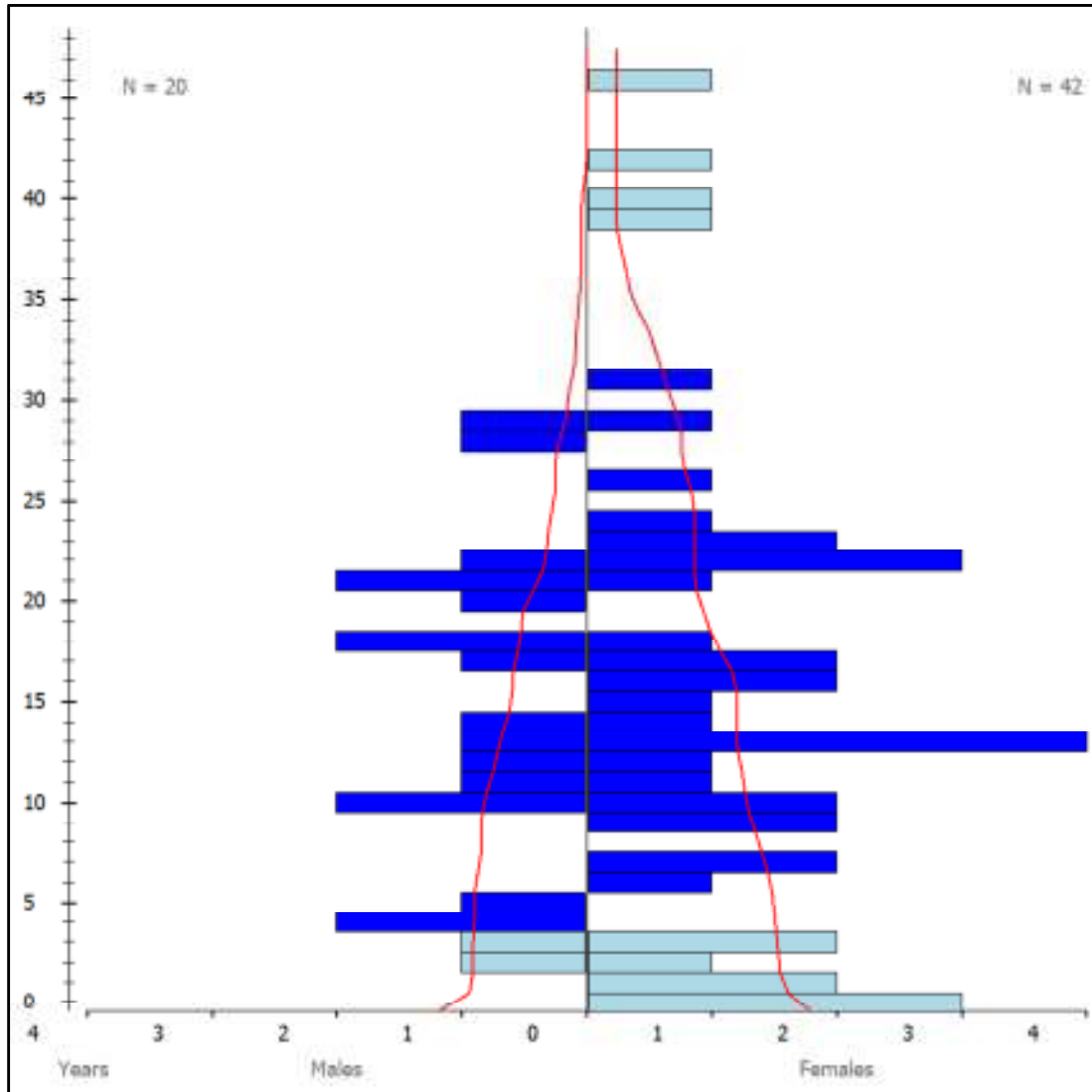


Graph 2: Census graph split by sex for the EEP population of *D. b. michaeli* since 1900. On 31.12.2012 there was more than twice the number of females than males (20.42) a trend that appears to begin around 1985.



4.2 Age Pyramid

Graph 3: Age pyramid for the EEP population of *D. b. michaeli*. The oldest living rhino is female Kenia at Magdeburg who is 46 years old.



4.3 Population Growth and Goals

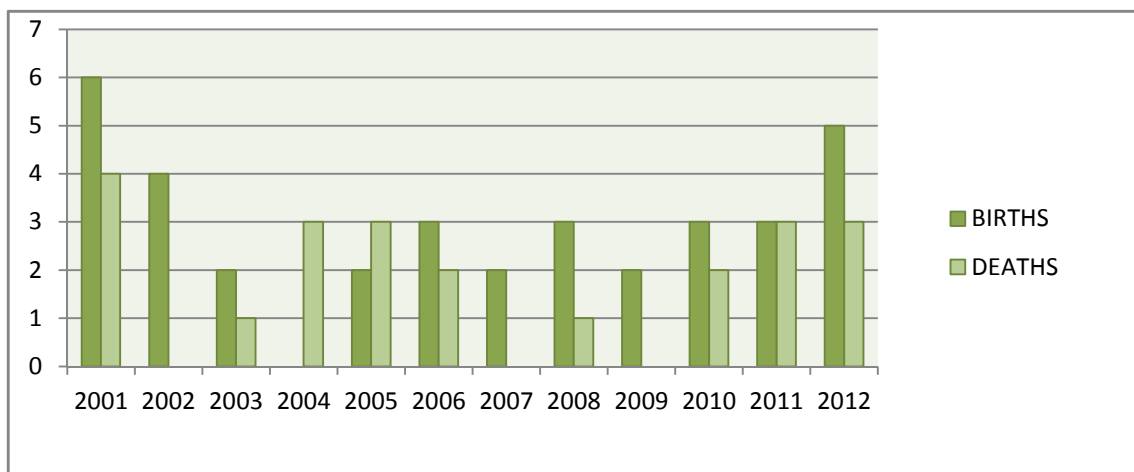
An annual goal has been set at a population growth rate of 5%. This is the figure used by the Kenyan Wildlife Service (KWS) for managing free ranging populations in Africa, so was thought to be an optimum of what is achievable in captivity. However, this has not been reached in previous years, and was not reached in 2012.

The lambda value for the EEP population in 2012 was 0.997. This is negative, showing an annual population decrease.

During 2012 we needed 3 births to maintain the EEP population and 6 births to increase the population size by 5% to reach our goal.

In reality, we had 5 births during 2012, the highest birth rate since 2001 (see graph 4), but also 3 deaths (the same as 2011) and 3 rhinos that were transferred out of the EEP. The latter two factors resulted in a population decrease.

Graph 4: Births and deaths in the Black rhino EEP population since 2001.



We still strive to meet our annual goal of a 5% increase in the population size. We have new holders for 2014 and new potential breeders as the youngsters mature.

5. Genetic Overview

The current living population was founded by 41 animals. These are founders as recorded by SPARKS as those with WILD/WILD parents. This does not include other founders to the EEP population who have been transferred into the EEP from outside Europe and are therefore not related to any other rhinos apart from their offspring. For example Sammy (SB number 750) who came from Osaka, Japan in 1999. Of these 41 founders six are still alive; Vuyu (558 at Lympne), Madiba (653 at Hannover), Kenia (153 at Magdeburg), Rukwa (195 at Lympne), Mzima (240 at Berlin) and Kilaguni (220 at Berlin).

Within our captive population 100% of the ancestry is certain (the percentage of the living population's pedigree that can be traced to known founders). The gene diversity of the EEP population (the probability that two alleles from the same locus sampled at random from the population are not identical by descent from a common ancestor) is 0.96. The gene value (gene diversity of the living individuals weighted for the reproductive value of individuals) is 0.96. The mean inbreeding is 0.01.

The most important animals to breed are those with the lowest mean kinship (MK). The below table shows the mean kinship of all the males (Table 1) and female (Table 2) within the EEP population. It also shows their mean kinship ranking (MK Rank). We must also consider age; the oldest animals with the lowest meankinships are genetically the most important due to their reduced time left for breeding. Locations recorded are as of 31.12.2012.

Table 1: Mean kinship dynamic and rank of all male *D. b. michaeli* within the EEP population.

Studbook Number	House Name	Current Location	MK Dynamic	MK Rank	Age Years
750	Sammy	Chester	0.0134	1	13
653	Madiba	Hannover	0.0156	2	20
453	Katakata	Fontaine	0.0201	3	22
349	Kifaru	Magdeburg	0.0218	4	28
610	Ndungu	Leipzig	0.0273	5	17

955	Asani	Lympne	0.0283	6	4
890	Vungu	Bekesbrne	0.0296	7	11
892	Manyara	Paignton	0.0296	8	10
714	Magadi	Chester	0.0329	9	14
528	Usoni	Krefeld	0.0335	10	18
973	Nkosi	Lympne	0.0343	11	2
927	Thabo	Ebeltoft	0.0366	12	4
341	Kingo	Lympne	0.0368	13	29
533	Taco	Koln	0.0374	14	18
903	Zambezi	Lympne	0.0374	15	10
438	Jakob	Pontscorf	0.0434	16	21
857	Jeremy	Zurich	0.0452	17	12
969	Kigoma	Berlin zoo	0.0499	18	3
928	Kito	Ebeltoft	0.0530	19	5
450	Jasper	Berlin zoo	0.0603	20	21

Table 2: Mean kinship dynamic and rank of all female *D. b. michaeli* within the EEP population.

Studbook Number	House Name	Current Location	MK Dynamic	MK Rank	Age Years
558	Vuyu	Lympne	0.0134	1	21
153	Kenia	Magdeburg	0.0145	2	46
240	Mzima	Berlinzoo	0.0201	3	40
384	Rosie	Lympne	0.0201	4	24
950	Damara	Lympne	0.0240	5	7
662	Wanda	Zurich	0.0251	6	16
220	Kilaguni	Berlinzoo	0.0257	7	39
428	Sita	Paignton	0.0262	8	22
696	Manyara	Chester	0.0271	9	14
663	Ruaha	Lympne	0.0273	10	16
947	Malindi	Chester	0.0285	11	7
975	Mala	Magdeburg	0.0285	12	1
968	Nyota	Lympne	0.0296	13	3
532	Tisa	Fontaine	0.0299	14	18
342	Arusha	Lympne	0.0301	15	29
195	Rukwa	Lympne	0.0301	16	42
437	Nane	Krefeld	0.0307	17	22
886	Maburi	Berlinzoo	0.0307	18	10
295	Mana	Magdeburg	0.0324	19	31

408	N'akuru	Lympne	0.0324	20	23
436	Sabah	Hannover	0.0324	21	22
754	Rufiji	Bekesbrne	0.0340	22	13
888	Solio	Lympne	0.0340	23	11
680	Kitani	Chester	0.0349	24	15
762	Salome	Bekesbrne	0.0352	25	13
546	Kumi	Berlinzoo	0.0354	26	17
883	Zuri	Chester	0.0360	27	6
971	Kibibi	Krefeld	0.0366	28	2
559	Maleika	Magdeburg	0.0367	29	17
366	Ine	Berlinzoo	0.0368	30	26
861	Samira	Zurich	0.0374	31	12
898	Ema Elsa	Chester	0.0376	32	10
956	Bashira	Ebeltoft	0.0397	33	3
998	Chanua	Chester	0.0397	34	0
417	Sany	Hannover	0.0441	35	23
911	Nyasa	Lympne	0.0441	36	9
974	Naima	Leipzig	0.0446	37	1
992	Kissima	Lympne	0.0452	38	0
743	Nandi	Leipzig	0.0511	39	13
910	Binti	Fontaine	0.0530	40	9
993	Akili	Berlinzoo	0.0530	41	0
767	Leipzig	Leipzig	0.0530	42	13

6. Recommendations

There are currently no restrictions on breeding.

We actively encourage all those with any of the most genetically important animals to breed.

You are strongly encouraged to use techniques available to monitor female oestrus cycling.

The following transfers have been approved:

Transfer

- Vungu (Howletts) → Port Lympne
 - Sammy (Chester) → Howletts for two years
 - Sammy (Howletts) and Vungu (Lympne) swap after two years
 - *for Sammy / Vuyu pairing*
 - Manyara (Chester) → Rotterdam
 - *waiting on confirmation from Rotterdam*
 - Naima (Leipzig) → Chester
 - Nyota (Lympne) → Ebeltoft
 - Tsororo and Kalusho (Frankfurt) out of EEP
 - *no longer possible*
 - Solio (Lympne) → Koln to pair with Taco
 - *not possible until enclosure completed at Koln in 2014*
 - Kigoma (Berlin) → Tallinn May 2013 to pair with Kibibi (Krefeld)
 - *completed 2013*
 - Kibibi (Krefeld) move → Tallinn May 2013 to pair with Kigoma (Berlin)
 - *completed 2013*
 - Zambesi and Damara (Lympne) → Rotterdam
 - *June 2013*
 - Baringo II from Dvur → Berlin
 - *waiting for available space at Berlin*
-

7. SPARKS Reports

7.1 Current Living

Dates: On 31 Dec 2012

Association: \Sparks\EAZA.fed

Report ordered by: current/last location (alphabetic)

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=====
Stud# | Sex | Birth Date | Sire | Dam | Location | Date | LocalID | Event | Name |
=====
BEKESBRNE - Howletts Wild Animal Park, Hythe, Kent, England (UK)
754 F 21 Jun 1999 534 342 LYMPNE 21 Jun 1999 P99052 Birth RUFIJ
      BEKESBRNE 18 Oct 2004 H20447 Transfer
762 F 25 Jan 2000 283 282 DVURKRALV 25 Jan 2000 058040 Birth SALOME
      LYMPNE 27 Nov 2001 P21047 Transfer
      BEKESBRNE 18 Oct 2004 H20448 Transfer
890 M 8 Nov 2001 341 558 LYMPNE 8 Nov 2001 P21034 Birth VUNGU
      BEKESBRNE 14 Oct 2004 H20444 Transfer

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Totals: 1.2.0 (3)

BERLINZOO - Zoologischer Garten Berlin Ag, Berlin, Germany

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220 F ~ 1974 WILD WILD TANA RIV ~ 1974 NONE Capture KILAGUNI
      DEMMER 28 Nov 1974 _____ Transfer
      DE GARDA 1 Dec 1974 _____ Transfer
      BERLINZOO 19 Oct 1975 0053 Transfer
      19 Oct 1975 750016 Transfer
240 F ~ 1973 WILD WILD TANA RIV ~ 1973 NONE Capture MZIMA
      DEMMER 28 Mar 1975 _____ Transfer
      DE GARDA 1 Jun 1975 _____ Transfer
      BERLINZOO 6 May 1977 770025 Transfer
366 F 6 Oct 1986 219 220 BERLINZOO 6 Oct 1986 0087 Birth INE
      6 Oct 1986 860038 Transfer
450 M 13 Sep 1991 268 175 DVURKRALV 13 Sep 1991 058025 Birth JASPER
      LEIPZIG 6 Oct 1993 M01312 Transfer
      BERLINZOO 5 Nov 1999 990324 Loan to
546 F 14 Jun 1995 347 366 BERLINZOO 14 Jun 1995 950206 Birth KUMI
886 F 3 Aug 2002 653 295 MAGDEBURG 3 Aug 2002 400008 Birth MABURI
      BERLINZOO 7 Jul 2004 B317-A Transfer
969 M 7 Feb 2010 450 886 BERLINZOO 7 Feb 2010 _____ Birth KIGOMA
993 F 6 Aug 2012 450 366 BERLINZOO 6 Aug 2012 AKILI Birth AKILI

```

Totals: 2.6.0 (8)

CHESTER - North of England Zoological Society, Upton-by-Chester, Cheshire, England (UK)

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680 F 16 Jun 1997 430 422 CHESTER 16 Jun 1997 28489 Birth KITANI
      FRANKFURT 16 Jun 1997 38492 Ownership
696 neutF 15 Aug 1998 430 312 CHESTER 15 Aug 1998 26055 Birth MANYARA
714 M 9 Feb 1999 534 194 LYMPNE 9 Feb 1999 P99015 Birth MAGADI
      CHESTER 24 May 2005 C05265 Loan to
750 M 11 Nov 1999 346 183 OSAKA 11 Nov 1999 401 Birth SAMMY

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CHESTER 10 Apr 2002 CZ54 Loan to
 883 F 5 Mar 2007 341 428 PAIGNTON 5 Mar 2007 8052 Birth ZURI
 CHESTER 14 Jun 2011 C11443 Transfer
 898 F 2 Nov 2002 283 619 DVURKRALV 2 Nov 2002 058044 Birth EMA ELSA
 CHESTER 13 Apr 2005 C0593 Loan to
 947 F 3 Nov 2005 653 295 MAGDEBURG 3 Nov 2005 400009 Birth MALINDI
 CHESTER 25 Sep 2008 CO8583 Transfer
 998 F 3 Oct 2012 714 898 CHESTER 3 Oct 2012 C12686 Birth CHANUA
Totals: 2.6.0 (8)

EBELTOFT - Ree Park - Ebeltoft Safari, Ebeltoft, Arhus, Denmark

927 M 6 May 2008 528 437 KREFELD 6 May 2008 1884 Birth THABO
 EBELTOFT 21 May 2010 DIB001 Transfer
 928 M 3 Apr 2008 450 366 BERLINZOO 3 Apr 2008 _____ Birth KITO
 EBELTOFT 6 Oct 2011 DIB002 Loan to
 956 F 15 May 2009 714 898 CHESTER 15 May 2009 C09219 Birth BASHIRA
 EBELTOFT 22 Jun 2012 DIB003 Loan to

Totals: 2.1.0 (3)

FONTAINE - BioParc De Doué, Doué-la-Fontaine, Haute-Saone, France

453 M 18 Oct 1990 18 19 LYMPNE 18 Oct 1990 P90002 Birth KATAKATA
 LONDON RP 18 Oct 1990 A1259 Ownership
 WHIPSNADÉ 22 Oct 1993 L2166 Transfer
 CHESTER 22 Jul 1998 26044 Loan to
 FONTAINE 9 Jun 2005 2DB90 Transfer
 532 F 20 May 1994 347 220 BERLINZOO 20 May 1994 940061 Birth TISA
 KOLN 2 Jun 1997 2250 Loan to
 FONTAINE 4 Aug 2008 4DB94 Loan to
 910 F 2 Nov 2003 450 366 BERLINZOO 2 Nov 2003 M21482 Birth BINTI
 FONTAINE 11 May 2006 3DB03 Loan to

Totals: 1.2.0 (3)

FRANKFURT - Zoologischer Garten Frankfurt, Frankfurt Am Main, Hesse, Germany

393 F ~ 1986 WILD WILD MANAPOOL ~ 1986 NONE Capture TSORORO
 RHODES WD 10 Jan 1989 _____ Transfer
 FRANKFURT 17 Jul 1989 22109 Transfer
 394 M ~ 1986 WILD WILD ZIMBABWE ~ 1986 NONE Capture KALUSHO
 RHODES WD 10 Jan 1989 _____ Transfer
 FRANKFURT 17 Jul 1989 22108 Transfer

Totals: 1.1.0 (2)

HANNOVER - Zoo Hannover GmbH, Hannover, Lower Saxony, Germany

417 F 1 Oct 1989 268 282 DVURKRALV 1 Oct 1989 058022 Birth SANY
 HANNOVER 4 Sep 1991 IV206 Transfer
 436 F 7 Feb 1991 166 220 BERLINZOO 7 Feb 1991 910034 Birth SABAH
 7 Feb 1991 M00447 Loan to
 LEIPZIG 23 Sep 1993 M00447 Transfer
 HANNOVER 14 Oct 2003 IV311 Loan to
 653 M ~ 1992 WILD WILD ADDO NP ~ 1992 NONE Capture MADIBA
 MAGDEBURG 25 Sep 1996 400007 Transfer
 HANNOVER 18 Apr 2012 IV484 Transfer

Totals: 1.2.0 (3)

KOLN - Cologne Zoo, Koeln, N Rhine-Westph, Germany

533 M 6 Feb 1995 349 417 HANNOVER 6 Feb 1995 IV220 Birth TACO
 ZURICH 6 Feb 1995 950008 Ownership
 KOLN 10 Jun 1997 2251 Loan to

Totals: 1.0.0 (1)

KREFELD - Zoo Krefeld GmbH, Krefeld, N Rhine-Westph, Germany

437 F 4 Apr 1991 166 240 BERLINZOO 4 Apr 1991 910035 Birth NANE
 DVURKRALV 1 Oct 1993 058034 Loan to
 KREFELD 26 May 1994 740 Transfer
 528 M 1 Jul 1994 252 217 ZURICH 1 Jul 1994 940006 Birth USONI
 DORTMUND 27 Nov 1996 081004 Loan to
 KREFELD 30 Oct 2003 1572 Loan to
 971 F 4 Jul 2010 528 437 KREFELD 4 Jul 2010 2030 Birth KIBIBI

Totals: 1.2.0 (3)

LEIPZIG - Zoologischer Garten Leipzig, Leipzig, Sachsen, Germany

610 M 18 Feb 1996 9 240 BERLINZOO 18 Feb 1996 960019 Birth NDUGU
 LEIPZIG 4 Jul 2001 M03019 Loan to
 1 Jan 2002 M03019 Transfer
 743 F 7 May 1999 450 481 LEIPZIG 7 May 1999 M02619 Birth NANDI
 767 F 10 Jan 2000 450 436 LEIPZIG 10 Jan 2000 M02731 Birth SARAFINE
 974 F 10 Dec 2011 610 767 LEIPZIG 10 Dec 2011 M09769 Birth NAIMA

Totals: 1.3.0 (4)

LYMPNE - Port Lympne Wild Animal Park, Hythe, Kent, England (UK)

195 F ~1970 WILD WILD E.AFRICA ~1970 NONE Capture RUKWA
 DEMMER 15 Sep 1971 _____ Transfer
 BEKESBRNE 20 Oct 1971 H71007 Transfer
 LYMPNE 26 Jan 1973 P73003 Transfer
 341 M 2 Oct 1983 142 195 LYMPNE 2 Oct 1983 P83001 Birth KINGO
 CHESTER 21 Jul 1995 25165 Loan to
 LYMPNE 9 Jul 1996 P83001 Transfer
 PAIGNTON 16 Jan 2003 4937 Loan to
 LYMPNE 8 May 2008 P83001 Transfer
 342 F 11 Nov 1983 142 194 LYMPNE 11 Nov 1983 P83002 Birth ARUSHA
 384 F 24 Nov 1988 18 19 LONDON RP 24 Nov 1988 A797 Birth ROSIE
 CHESTER 10 Aug 1999 M00116 Transfer
 LYMPNE 13 Jun 2011 P21138 Transfer
 408 F 30 Oct 1989 18 195 LYMPNE 30 Oct 1989 P89001 Birth N'AKURU
 558 F ~1991 WILD WILD ADDO NP ~1991 NONE Capture VUYU
 NZP-WASH 2 May 1995 _____ Transfer
 LYMPNE 6 Aug 1995 P95039 Loan to
 663 F 21 Dec 1996 318 195 LYMPNE 21 Dec 1996 P96046 Birth RUAHA
 888 F 30 Jul 2001 534 195 LYMPNE 30 Jul 2001 P21025 Birth SOLIO
 903 M 31 Dec 2002 534 408 LYMPNE 31 Dec 2002 P22060 Birth ZAMBEZI II

911 F 16 Sep 2003 391 342 LYMPNE 16 Sep 2003 P20331 Birth NYASA
 950 F 18 Dec 2005 302 558 LYMPNE 18 Dec 2005 P20578 Birth DAMARA
 955 M 29 Oct 2008 750 680 CHESTER 29 Oct 2008 C08640 Birth ASANI
 LYMPNE 3 Oct 2012 P21244 Loan to
 968 F 25 Dec 2009 341 558 LYMPNE 25 Dec 2009 P20978 Birth NYOTA
 973 M 22 Jan 2011 430 663 LYMPNE 22 Jan 2011 P21104 Birth NKOSI
 992 F 1 Jul 2012 903 911 LYMPNE 1 Jul 2012 P21233 Birth

Totals: 4.11.0 (15)

MAGDEBURG - Zoologischer Garten Magdeburg, Magdeburg, Sachsen-Anhalt, Germany

153 F ~ 1966 WILD WILD E.AFRICA ~ 1966 NONE Capture KENIA
 L RUHE 22 Jun 1970 _____ Transfer
 MAGDEBURG 30 Aug 1970 400002 Transfer
 295 F 15 Sep 1981 9 153 MAGDEBURG 15 Sep 1981 400004 Birth MANA
 349 M 21 Oct 1984 171 150 ZURICH 21 Oct 1984 840011 Birth KIFARU II
 FRANKFURT 27 Jul 1987 399 Loan to
 HANNOVER 27 Sep 1991 IV207 Loan to
 MAGDEBURG 18 Apr 2012 400011 Transfer
 559 F 23 Dec 1995 386 295 MAGDEBURG 23 Dec 1995 400006 Birth MALEIKA
 975 F 24 Dec 2011 653 295 MAGDEBURG 24 Dec 2011 400010 Birth Mala

Totals: 1.4.0 (5)

PAIGNTON - Paignton Zoo Environmental Park, Paignton, Devonshire, England (UK)

428 F 12 Oct 1990 166 298 BERLINZOO 12 Oct 1990 900044 Birth SITA
 PAIGNTON 19 Sep 2002 4741 Loan to
 892 M 18 Sep 2002 534 456 LYMPNE 18 Sep 2002 P22032 Birth MANYARA
 PAIGNTON 17 Jun 2010 8372 Transfer

Totals: 1.1.0 (2)

PONTSCORF - Zoo De Pont-Scorff, Pont-Scorff, Morbihan, France

438 M 23 Jun 1991 386 387 DVURKRALV 23 Jun 1991 058024 Birth JAKOB
 KREFELD 24 May 1994 739 Transfer
 PONTSCORF 13 Nov 2002 100324 Loan to

Totals: 1.0.0 (1)

ZURICH - Zoo Zürich, Zürich, Switzerland

662 F 3 Jul 1996 252 150 ZURICH 3 Jul 1996 960005 Birth WANDA
 3 Jul 1996 24609 Loan to
 857 M 21 Dec 2000 283 387 DVURKRALV 21 Dec 2000 058041 Birth JEREMY
 CHESTER 13 Apr 2005 C0594 Loan to
 FONTAINE 9 Jun 2005 1DB00 Loan to
 ZURICH 12 Jan 2010 _____ Transfer
 861 F 3 Mar 2001 349 417 HANNOVER 3 Mar 2001 IV281 Birth SAMIRA
 ZURICH 28 Jun 2004 A10031 Transfer

Totals: 1.2.0 (3)

TOTALS: 21.43.0 (64)

15 nstitutions

7.2 Births

Restricted to: (Diceros bicornis)
 Dates: 1 Jan 2012 - 31 Dec 2012
 Event: Births
 Association: \Sparks\EAZA.fed
 Report ordered by: current/last location (alphabetic)

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name
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BERLINZOO - Zoologischer Garten Berlin Ag, Berlin, Germany

993 F 6 Aug 2012 450 366 BERLINZOO 6 Aug 2012 AKILI Birth AKILI

Totals: 0.1.0 (1)

CHESTER - North of England Zoological Society, Upton-by-Chester, Cheshire, England (UK)

997 M ~ 2012 750 680 CHESTER ~ 2012 _____ Birth
 10 Sep 2012 Death

998 F 3 Oct 2012 714 898 CHESTER 3 Oct 2012 C12686 Birth CHANUA

Totals: 1.1.0 (2)

LYMPNE - Port Lympne Wild Animal Park, Hythe, Kent, England (UK)

992 F 1 Jul 2012 903 911 LYMPNE 1 Jul 2012 P21233 Birth

Totals: 0.1.0 (1)

MAGDEBURG - Zoologischer Garten Magdeburg, Magdeburg, Sachsen-Anhalt, Germany

994 F 15 Jul 2012 653 559 MAGDEBURG 15 Jul 2012 400012 Birth
 15 Jul 2012 Death

Totals: 0.1.0 (1)

=====

TOTALS: 1.4.0 (5)

4 Institutions

7.3 Deaths

Restricted to: (Diceros bicornis)
 Dates: 1 Jan 2012 - 31 Dec 2012
 Event: Deaths
 Association: \Sparks\EAZA.fed
 Report ordered by: current/last location (alphabetic)

=====

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name
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CHESTER - North of England Zoological Society, Upton-by-Chester, Cheshire, England (UK)

997	M	~ 2012	750	680	CHESTER	~ 2012		Birth	
						10 Sep 2012		Death	

Totals: 1.0.0 (1)

MAGDEBURG - Zoologischer Garten Magdeburg, Magdeburg, Sachsen-Anhalt, Germany

994	F	15 Jul 2012	653	559	MAGDEBURG	15 Jul 2012	400012	Birth	
						15 Jul 2012		Death	

Totals: 0.1.0 (1)

PONTSCORF - Zoo De Pont-Scorff, Pont-Scorff, Morbihan, France

454	F	15 Mar 1992	252	150	ZURICH	15 Mar 1992	920017	Birth	SIWA
					FRANKFURT	15 Mar 1992	34393	Ownership	
					DORTMUND	23 Aug 1994	081003	Loan to	
					PONTSCORF	10 Dec 2004	100322	Loan to	
						27 Dec 2012		Death	

Totals: 0.1.0 (1)

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TOTALS: 1.2.0 (3)

3 Institutions

7.4 Transfers within the EEP

Restricted to: (Diceros bicornis)
 Dates: 1 Jan 2012 - 31 Dec 2012
 Event: Transfers
 Association: \Sparks\EAZA.fed
 Report ordered by: current/last location (alphabetic)

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name
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EBELTOFT - Ree Park - Ebeltoft Safari, Ebeltoft, Arhus, Denmark

956 F 15 May 2009 714 898 CHESTER 15 May 2009 C09219 Birth BASHIRA
 EBELTOFT 22 Jun 2012 DIB003 Loan to

Totals: 0.1.0 (1)

HANNOVER - Zoo Hannover GmbH, Hannover, Lower Saxony, Germany

653 M ~ 1992 WILD WILD ADDO NP ~ 1992 NONE Capture MADIBA
 MAGDEBURG 25 Sep 1996 400007 Transfer
 HANNOVER 18 Apr 2012 IV484 Transfer

Totals: 1.0.0 (1)

LYMPNE - Port Lympne Wild Animal Park, Hythe, Kent, England (UK)

955 M 29 Oct 2008 750 680 CHESTER 29 Oct 2008 C08640 Birth ASANI
 LYMPNE 3 Oct 2012 P21244 Loan to

Totals: 1.0.0 (1)

MAGDEBURG - Zoologischer Garten Magdeburg, Magdeburg, Sachsen-Anhalt, Germany

349 M 21 Oct 1984 171 150 ZURICH 21 Oct 1984 840011 Birth KIFARU II
 FRANKFURT 27 Jul 1987 399 Loan to
 HANNOVER 27 Sep 1991 IV207 Loan to
 MAGDEBURG 18 Apr 2012 400011 Transfer

Totals: 1.0.0 (1)

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TOTALS: 3.1.0 (4)

4 Institutions

7.5 Transfers out of the EEP

Restricted to: (Diceros bicornis)

Dates: 1 Jan 2012 - 31 Dec 2012

Event: Transfers

Report ordered by: current/last location (alphabetic)

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name
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MKOMAZI - Mkomazi, Kilimanjaro, Tanzania

879	F	20 Dec 2006	450	546	BERLINZOO	20 Dec 2006	_____	Birth	ZAWADI
					LYMPNE	9 Mar 2010	P20104	Transfer	
					MKOMAZI	16 Jun 2012	_____	Transfer	

880	F	3 Jan 2007	302	455	LYMPNE	3 Jan 2007	P20700	Birth	GRUMETI
					MKOMAZI	16 Jun 2012	_____	Transfer	

951	M	7 Jan 2006	302	663	LYMPNE	7 Jan 2006	P20600	Birth	MONDULI
					MKOMAZI	16 Jun 2012	_____	Transfer	

Totals: 1.2.0 (3)

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TOTALS: 1.2.0 (3)

1 Institution