

# EAZA Yearbook 2007/2008

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<http://www.eaza.net/activities/cp/Pages/yearbook.aspx>

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## EAZA Antelope and Giraffe TAG

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- Arabian oryx (*Oryx leucoryx*) EEP (by Jackie Ossowski-Mackie)
- Lechwe (*Kobus leche*) ESB (by John McLaughlin)
- Nile lechwe (*Kobus megaceros*) EEP (by Nick Lindsay)

## EAZA Antelope and Giraffe TAG Annual Report 2007 - 2008



### 1. Information on organisation, structure and activities of the TAG

<b>TAG chair:</b>	Frank Rietkerk, Apeldoorn	<a href="mailto:f.rietkerk@apenheul.nl">f.rietkerk@apenheul.nl</a>
<b>TAG vice-chair:</b>	Angela Glatston, Rotterdam	<a href="mailto:a.glatston@rotterdamzoo.nl">a.glatston@rotterdamzoo.nl</a>
<b>TAG members:</b>	Teresa Abaigar (Almeria) Gary Batters (Banham) Clemens Becker (Karlsruhe) Jean-Luc Berthier (Paris-jardin) Koen Brouwer (Valencia-parc) Klaus Brunsing (Hannover) Mark Challis (Belfast) Marc Damen (Overloon) Heiner Engel (Hannover) Gerardo Espeso Pajares (Almeria) David Field (London) Tania Gilbert (Marwell) Ian Goodwin (Marwell) Catrin Hammer (Alwabra) Adrian Harland (Lymgne) Jens-Ove Heckel (Landau) Sander Hofman (Antwerpen) Terry Hornsey (Kessingland) Jiri Hruby (Dvur-kralove) Kristin Leus (Antwerpen) Nick Lindsay (Whipsnade) John McLaughlin (Fota) Eulalia Moreno (Almeria) Pavel Moucha (Dvur-kralove) Klaus Muller-Schilling (Hannover) Susana Nolasco (Lisboa-zoo) Jackie Ossowski-Mackie (London) Richard Osterballe (Givskud) Amy Plowman (Paignton) Radoslaw Ratajszczak (Wroclaw) Wineke Schoo (Arnhem) Ulrich Schürer (Wuppertal) Jaroslav Simek (Praha) Jake Veasey (Woburn) Hanny Verberkmoes (Kerkrade) Paul Vercammen (Sharjah) Lars Versteegen (Hilvarenbeek) Waltraut Zimmermann (Köln) Peter Zwanzger (Köln)	

<b>Current EEPs:</b>	<i>Addax (Addax nasomaculatus)</i> <i>Blue duiker (Cephalophus monticola)</i> <i>Cuvier's gazelle (Gazella cuvieri)</i> <i>Dama gazelle (Gazella dama)</i> <i>Saharawi dorcas gazelle (Gazella dorcas neglecta)</i> <i>Giraffe (Giraffa camelopardalis)</i> <i>Roan antelope (Hippotragus equinus)</i> <i>Nile lechwe (Kobus megaceros)</i> <i>Okapi (Okapia johnstoni)</i> <i>Scimitar-horned oryx (Oryx dammah)</i> <i>Arabian oryx (Oryx leucoryx)</i> <i>Eastern bongo (Tragelaphus eurycerusisaaci)</i>
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<b>Current ESBs:</b>	Bontebok/blesbok ( <i>Damaliscus dorcas</i> ) Sable antelope ( <i>Hippotragus niger niger</i> ) Lechwe ( <i>Kobus leche</i> ) Kirk's dik-dik ( <i>Madoqua kirkii</i> ) Lowland nyala ( <i>Tragelaphus angasii</i> ) Lesser kudu ( <i>Tragelaphus imberbis</i> ) Western sitatunga ( <i>Tragelaphus spekii gratus</i> ) Greater kudu ( <i>Tragelaphus strepsiceros</i> )
<b>TAG meeting:</b>	Date of last meeting: 23 Juli 2008 Last meeting hosted at Koninklijke Rotterdamse Diergaarde Blijdorp.
<b>Regional Collection Plan:</b>	Has a RCP been published? Yes Most recent edition published in 2008. Next edition to be published in 2011.
<b>Publications:</b>	Not specified.

## 2. Information on developments during 2007 - 2008

### Website

The EAZA Antelope and Giraffe TAG continues to explore the different options for creating its own website. It would be best to have this somewhere where other TAGs also have a space – it is not clear right now where this would be. An alternative would be to use the model that has been developed for the Carnivore Campaign.

### EEP evaluations

The evaluations of eight EEPs were completed in 2007 and 2008. Another three programmes, Mhorh gazelle, Blue duiker and Nile lechwe will be evaluated in 2009.

### TAG structure

The TAG has been structured along taxonomic and theme sub-groups, all of which have a leader. Although not all sub-groups are always present at all meetings, the TAG continues to see the merits of this structure. TAG structure is a recurrent theme itself at all meetings. The roles and responsibilities of the sub-group leaders have been identified and will be posted on the website in due time.

The TAG is looking for a leader of the Savannah Antelope sub-group (NB position was filled by Catrin Hammer of AI Wabra in 2009).

We will also be looking to include several special advisors: a new veterinary advisor, as well as advisors for conservation, taxonomy, education, nutrition etc.

### Programmes

Most programmes continue to do well. Male surplus, small founder populations and uncertainties about the precise taxonomic status of populations and individual animals are a recurrent theme in quite a few programmes, but much progress has been achieved in these areas over the past years. The okapi is a special case and gets more attention than most of the other programmes; the strong point of the Okapi EEP is its relationship with the North American Okapi SSP and the excellent cooperation between the two programmes. Giraffe and bongo are the other two high profile EEPs, whereas the Scimitar-horned oryx, Addax, Mhorh and Saharawi dorcas gazelle programmes are all involved in a number of well conceived and successful projects, including re-introduction, in North Africa. The ESBs are well maintained and the TAG is very appreciative of a few very loyal species monitors, who no longer are listed in the reports. In the Antelope and Giraffe TAG, the monitor species include the goitred gazelle, Thomson's gazelle, impala, white-tailed gnu and klipspringer.

The Roan ESB was elevated to an EEP in 2007 and is in contact with a Roan reintroduction project in Swaziland.

Not a strong point in the Antelope and Giraffe TAG is the production of husbandry guidelines, which is something we will continue to encourage over the next years.

### Conservation

The TAG is discussing how best to support and stimulate conservation projects involving antelope species. The TAG did identify those species that merit special attention in this regard: Eastern bongo, Arabian oryx, Kafue lechwe, addax and scimitar-horned oryx, Mhorh gazelle, Cuvier's gazelle, slender-horned gazelle, Rothschild's giraffe and okapi. It would have been good to include Saiga, but the number of Saiga in EAZA collections has dwindled down to virtually zero.

## 3. TAG goals for 2009

### Future

The TAG wishes

- To further increase its cooperation with antelope TAGs and groups in other regions.
- To be more pro-active in the acquisition of new species for the EAZA region, especially if (ex situ or in situ) captive breeding could be a good instrument in their conservation or recovery. Species identified for such action were Western giant eland, gerenuk, dibatag, hirola and Kenya hartebeest.
- To become more involved in field conservation, e.g. use our breeding expertise to support population management of wild populations. The Bongo EEP's work in Kenya could be an example to show what zoos can do in support of field programmes.
- To organise, with the IUCN Antelope Specialist Group and the North American Antelope and Giraffe TAG, an international antelope meeting in 2010 or 2011.



# Giraffe

## EEP Annual Report 2007 - 2008



### 1. Programme information

Angolan giraffe	<i>Giraffa camelopardalis angolensis</i>
Kordofan giraffe	<i>Giraffa camelopardalis antiquorum</i>
Cape giraffe	<i>Giraffa camelopardalis giraffa</i>
Reticulated giraffe	<i>Giraffa camelopardalis reticulata</i>
Baringo giraffe	<i>Giraffa camelopardalis rothschildi</i>
Masai giraffe	<i>Giraffa camelopardalis tippelskirchi</i>
Hybrid/unknown ssp giraffe	<i>Giraffa camelopardalis HYBRID</i>

#### EEP established in 1991.

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

Target population size A= 800 and B= 800

#### Additional comments

About 200 individuals per subspecies are needed to be able to maintain healthy populations for a number of generations. Currently 7 subspecies are being kept in EAZA plus a number of hybrids. For hybrids there is a phase out policy, which makes space for four subspecies to be kept in healthy populations. Baringo and Reticulated giraffes have a good chance to survive in Europe, followed by Kordofan giraffes. The Angolan giraffe population in Europe is very much at risk and faces extinction in Europe due to low numbers and big transport distances. The same applies to Cape giraffes, which are even more negatively influenced by large transport distances. Masai giraffes will become extinct in Europe within a few years.



## 2. Programme personnel

### Species Coordinator

Marc Damen (Overloon)

### Species Committee members

Tom de Jongh (Arnhem)  
Conrad Ensenat (Barcelona-zoo)  
Mark Challis (Belfast)  
Mark Pilgrim (Chester)  
Frank Brandstatter (Dortmund)  
Sean Mc Keown (Dubai-wc)  
Kerstin Jurczynski (Duisburg)  
Ludek Culik (Dvur-kralove)  
Pierre de Wit (Emmen)  
Richard Osterballe (Givskud)  
Heiner Engel (Hannover)  
Waltraut Zimmermann (Koln)  
Eric Bairro Ruivo (Lisboa-zoo)  
Irena Furlan (Ljubljana)  
David Field (London)  
Ute Magiera (Osnabruck)  
Angela Glatston (Rotterdam)  
Marianne Bilbaut (Sigean)  
Jens Lilleor (Aalborg)

### Conservation advisor

Pierre Gay (Doue-fontaine)

### Nutritional advisor

Juergen Hummel (Koln)  
Marcus Clauss (Zürich-irchel\_NE)

### Veterinary advisor

Jacques Kaandorp (Hilvarenbeek)

### Research advisor

Rob Ogden (Wds\_edinburgh\_NE)

### General advisor

Günther Schleussner (Stuttgart)



# Giraffe

## EEP Annual Report 2007 - 2008



### 3. Activities

#### Species Committee

Last election: 2004  
Last meeting: 21 September 2007 Warszawa

#### Conservation activities

Not specified.

#### Research activities

Wildlife DNA Services, University of Wales, UK, is developing a suitable paternity test for giraffes.

Mitochondrial DNA variability in *Giraffa camelopardalis*: consequences for taxonomy, phylogeography and conservation of giraffes in West and central Africa. Project of the National Museum of Natural History in Paris (which includes Paris zoo).

The Danish Cardiovascular Research Programme (DaGir) is studying the cardiovascular system of giraffes to better understand the humans cardiovascular system and diseases related to it.

### 4. Publications

#### Studbook

Recent edition: 2008  
Next edition: 2010

#### Husbandry guidelines

Published in 2006.

## 5. Status

### Status and developments over the year 2007 - 2008

Angolan giraffe  
*Giraffa camelopardalis angolensis*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		DORTMUND	1.3.0	4.0.0 (1.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	1.0.0	3.5.0
		ESTEPONA	1.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
		LISBOA-ZOO	2.4.0	1.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.6.0
		NEUNKIRCHEN	1.2.0	0.2.0 (0.1.0)	0.0.0	0.2.0	0.0.0	0.0.0	1.1.0	0.0.0
		OLDENBURG_NE	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.0.0
		Total (5)	5.11.0	6.4.0 (1.1.0)	0.2.0	0.2.0	0.0.0	0.0.0	2.2.0	8.12.0

Kordofan giraffe  
*Giraffa camelopardalis antiquorum*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AMERSFOORT	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		ANTWERPEN	0.4.0	0.0.0 (0.0.0)	1.0.0	1.4.0	0.0.0	0.0.0	0.0.0	0.0.0
		CHAMPREPUS	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		DOUE-FONTAINE	1.4.0	2.1.0 (1.0.0)	0.2.0	1.1.0	0.0.0	0.0.0	0.0.0	1.6.0
		JURQUES	1.3.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.3.0
		LA-FLECHE	0.2.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		LISIEUX	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0
*		LYON	0.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
*		MECHELEN	0.0.0	0.0.0 (0.0.0)	1.4.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		MUZILLAC	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	0.0.0
		OBTERRE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		PARIS-ZOO	3.14.0	3.2.0 (0.0.0)	0.0.0	2.2.0	0.0.0	0.0.0	0.3.0	4.11.0
		PELISSANE	1.6.0	3.0.0 (1.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.0.0	3.4.0
		PESSAC_NE	1.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0
*		ROMANEÛHE	0.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		SABLES-OLONNE	1.3.0	2.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	3.2.0
		SIGEAN	4.7.0	1.3.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	2.1.0	3.9.0
		Total (17)	20.43.0	12.7.0 (2.0.0)	6.10.0	6.10.0	0.0.0	0.0.0	6.6.0	24.44.0

Cape giraffe  
*Giraffa camelopardalis giraffa*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALMATY	2.2.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.3.0
		CHAMPREPUS	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DUBAI-WC	1.3.0	1.0.0 (1.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	1.1.0	0.3.0
		JERUSALEM	4.5.0	1.3.0 (0.1.0)	0.0.0	2.0.0	0.0.0	0.2.0	0.0.0	3.5.0
		KIRIAT-MOTZKIN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		LISIEUX	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		MOSKVA	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.4.0
		PORT-ST-PERE_NE	3.3.0	1.0.1 (0.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	2.3.0
*		RAMAT-GAN	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		WADI-WILDLIFE_NE	5.5.0	2.1.0 (1.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	6.5.0
		Total (10)	19.22.0	6.5.1 (2.1.1)	2.1.0	2.1.0	0.0.0	0.2.0	6.1.0	17.23.0

Baringo giraffe  
*Giraffa camelopardalis rothschildi*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AALBORG	2.5.0	3.4.0 (0.1.0)	0.0.0	3.3.0	0.0.0	0.0.0	0.0.0	2.5.0
		AMERSFOORT	2.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		ARNHEM	4.11.0	3.4.0 (0.0.0)	2.0.0	3.2.0	0.0.0	0.0.0	0.0.0	6.13.0
		ATHINAI	1.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		AUGSBURG	1.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		BANDHOLM	1.1.0	0.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		BARCELONA-ZOO	1.2.0	2.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0
		BELFAST	0.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		BERLIN-TIERPARK	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		BEWDLEY	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		BORAS	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		BOSSIERE-DORE	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		BRATISLAVA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		BUDAPEST	1.1.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		CABARCENO	2.0.0	0.0.0 (0.0.0)	4.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.0.0
		CHESTER	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.0.0	1.1.0
*		COLCHESTER	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DALTON-FURNESS	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
*		DRESDEN	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DUBLIN	1.1.0	1.1.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		DUDLEY	1.2.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.3.0
		DVUR-KRALOVE	3.11.0	5.2.1 (0.1.1)	0.1.0	4.1.0	0.0.0	0.0.0	0.0.0	4.12.0
		EMMEN	4.7.0	3.2.0 (2.0.0)	1.0.0	4.1.0	0.0.0	0.0.0	1.1.0	1.7.0
		FALCONARA	1.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		FOTA	1.6.0	2.1.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.7.0
		GELSENKIRCHEN	2.2.0	1.0.0 (0.0.0)	0.3.0	1.0.0	0.0.0	0.0.0	0.0.0	2.5.0
		GIVSKUD	2.4.0	3.0.0 (1.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	0.0.0	3.5.0
		HAMBURG	1.2.0	1.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	2.0.0	1.2.0
		HANNOVER	2.4.0	2.1.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	1.1.0	2.3.0
		HILVARENBEEK	2.8.0	5.2.0 (4.0.0)	0.2.0	2.0.0	0.0.0	0.0.0	0.1.0	1.11.0
		IEPER	1.1.0	0.0.0 (0.0.0)	1.2.0	0.1.0	1.0.0	1.0.0	1.0.0	1.2.0
		JEREZ-FRONTERA	1.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		KERKRADE	0.3.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		KRENLBACH	2.1.0	0.1.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		KRONBERG	2.4.0	1.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	2.4.0
		LEIPZIG	1.5.0	1.5.0 (0.2.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.8.0
		LES-MATHES	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		LIBEREC	3.5.0	1.2.0 (0.0.0)	1.0.0	2.1.0	0.0.0	0.0.0	1.0.0	2.6.0
*		LISIEUX	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
*		LJUBLJANA	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		LODZ	0.1.0	0.0.0 (0.0.0)	2.2.0	0.0.0	0.0.0	0.0.0	1.2.0	1.1.0
		MADRID-ZOO	3.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	1.0.0	0.0.0	1.0.0	2.0.0
		MAGDEBURG	1.2.0	0.1.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	1.2.0
		MALTON	1.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		MARWELL	0.3.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.2.0	1.1.0
*		MAUBEUGE_NE	1.2.0	2.0.0 (1.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	2.1.0
*		MUZILLAC	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.0.0
*		NEUNKIRCHEN	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		NYIREGYHAZA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		OLOMOUC	3.10.0	3.2.0 (0.0.0)	0.0.0	3.0.0	0.0.0	0.0.0	0.2.0	3.10.0
		OPOLE	1.2.0	2.0.0 (0.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	0.0.0	2.3.0
		OSTRAVA	1.5.0	1.1.0 (0.0.0)	0.0.0	0.3.0	0.0.0	0.0.0	0.0.0	2.3.0
		PAIGNTON	1.0.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0

	PALIC	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	PEAUGRES	1.1.0	1.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
*	PISTOIA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
	PLEUGUENEUC	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	PLOCK	1.2.0	2.1.0 (2.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
	PONT-SCORFF	1.0.0	0.0.0 (0.0.0)	2.0.0	1.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	POZNAN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	PRAHA	3.12.0	3.3.0 (0.0.0)	0.0.0	1.5.0	0.0.0	0.0.0	0.1.0	5.9.0
	RHENEN	1.3.0	0.1.0 (0.0.0)	2.1.0	1.3.0	0.0.0	0.0.0	1.0.0	1.2.0
	ROMANECHÉ	0.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0
	ROSTOV_NE	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
	ST-AIGNAN	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	SAARBRUCKEN	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
*	TABERNAS	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	THOIRY	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.0.0
	USTI-NAD-LABEM	1.3.0	2.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.5.0
*	VALENCIA-PARC	0.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
	WARMINSTER	1.11.0	1.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	1.10.0
	WARSZAWA	1.2.0	2.1.0 (0.1.0)	0.1.0	1.0.0	0.0.0	0.0.0	0.0.0	2.3.0
	WOBURN	2.5.0	2.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.6.0
	ZLIN	2.1.0	0.1.0 (0.0.0)	0.0.0	0.1.0	0.0.0	1.0.0	0.0.0	1.1.0
	Total (74)	91.163.0	55.42.1 (12.6.1)	34.25.0	34.25.0	2.1.0	2.0.0	12.14.0	122.186.0

Hybrid/unknown ssp giraffe  
*Giraffa camelopardalis* HYBRID

	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
*		AMNEVILLE	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	3.0.0
		ANTWERPEN	0.0.0	0.0.0 (0.0.0)	0.4.0	0.0.0	0.0.0	0.0.0	0.0.0	0.4.0
		ATHINAI	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		AUGSBURG	0.1.0	1.1.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		BANDHOLM	1.4.0	0.2.0 (0.0.0)	0.0.0	1.2.0	0.0.0	0.0.0	0.0.0	0.4.0
*		BANHAM	0.0.0	0.3.0 (0.1.0)	1.3.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		BELFAST	2.4.0	1.2.0 (0.0.0)	0.0.0	2.2.0	0.0.0	0.0.0	0.0.0	1.4.0
		BERLIN-TIERPARK	2.3.0	2.3.0 (1.0.0)	0.0.0	0.0.0	0.0.0	2.0.0	0.1.0	1.5.0
		BERLIN-ZOO	1.2.0	1.1.0 (0.0.0)	0.0.0	0.1.0	0.0.0	1.0.0	0.0.0	1.2.0
		BEWDLEY	5.3.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	5.2.0
*		BLACKPOOL	0.0.0	1.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		BUSSOLENGO	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		CAMBRON-CASTEAU	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		CHESTER	1.4.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0	0.5.0
		COLCHESTER	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0
		DALTON-FURNESS	3.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	1.0.0	4.0.0
		DARICA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		DEIGNE	1.2.0	1.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	2.2.0
		DOMPIERRE	1.3.0	0.2.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	1.2.0
		DUBLIN	0.2.0	1.1.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		DUDLEY	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
*		EBELTOFT	0.0.0	0.0.0 (0.0.0)	0.5.0	0.0.0	0.0.0	0.0.0	0.0.0	0.5.0
		ERFURT	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		ESTEPONA	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.0.0
		FOTA	0.6.0	1.1.0 (1.0.0)	0.0.0	0.5.0	0.0.0	0.0.0	0.0.0	0.2.0
*		GDANSK	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		GIVSKUD	1.2.0	1.0.0 (0.0.0)	0.0.0	1.2.0	0.0.0	0.0.0	0.0.0	1.0.0
		KATOWICE	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.0.0
		KAUNAS	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		KESSINGLAND	1.4.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.4.0
		KOLMARDEN	2.4.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0	0.4.0

KRISTIANSAND	1.1.0	0.1.0 (0.1.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.1.0
LA-FLECHE	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
LES-MATHES	0.3.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.3.0
LIGNANO	1.2.0	1.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
LISIEUX	2.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.0.0
LODZ	1.1.0	0.0.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0
LONDON	0.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0
LYMPNE	4.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.1.0
LYON	1.3.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	0.2.0
MALTON	2.1.0	1.1.0 (0.1.0)	0.2.0	0.0.0	0.0.0	0.0.0	1.0.0	2.3.0
MARWELL	3.6.0	4.3.0 (3.1.0)	0.0.0	0.2.0	0.0.0	0.0.0	1.1.0	3.5.0
MOSKVA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
NYIREGYHAZA	0.3.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.3.0
* OBTERRE	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
ODENSE	0.2.0	0.0.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0
OLDENBURG_NE	1.1.0	2.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	1.0.0	0.0.0	2.3.0
OSNABRUCK	1.2.0	1.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	2.1.0
PALIC	0.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.1.0
PEAUGRES	0.5.0	1.1.0 (0.1.0)	0.2.0	0.2.0	0.0.0	0.0.0	0.2.0	1.3.0
PESSAC_NE	0.3.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
PLEUGUENEUC	0.2.0	2.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
PONT-SCORFF	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.0.0
POZNAN	3.3.0	0.0.0 (0.0.0)	0.0.0	3.0.0	0.0.0	0.0.0	0.1.0	0.2.0
PRESCOT	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	3.0.0
RAMAT-GAN	1.2.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
* RIGA	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
ROMA	1.3.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
* ROMANECHÉ	0.0.0	0.0.0 (0.0.0)	0.2.0	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0
SCHWERIN	2.1.0	1.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	2.1.0
ST-AIGNAN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
ST-PETERSBURG	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
SAARBRUCKEN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
* TABERNAS	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
TWYXCROSS	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
VALENCIA-PARC	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
WIEN-ZOO	1.2.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
WOBURN	0.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0
WROCLAW	2.1.0	1.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
ZLIN	0.2.0	0.1.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.2.0
Total (70)	78.110.0	29.30.0 (8.8.0)	11.24.0	11.24.0	0.0.0	4.1.0	16.17.0	79.114.0

Reticulated giraffe  
*Giraffa camelopardalis reticulata*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AMERSFOORT	3.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	2.0.0	3.0.0
		AMSTERDAM	1.5.0	2.0.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.2.0	3.1.0
		BERLIN-ZOO	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		BRATISLAVA	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		BRNO	1.3.0	0.0.0 (0.0.0)	0.1.0	0.1.0	0.0.0	0.0.0	0.1.0	1.2.0
		BUSSOLENGO	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		COLCHESTER	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DALTON-FURNESS	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		DEBRECEN	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.0.0
*		DRESDEN	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DUISBURG	2.3.0	1.1.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	2.3.0
		DVUR-KRALOVE	3.12.0	2.4.0 (0.0.0)	0.1.0	0.2.0	0.0.0	0.0.0	1.2.0	4.13.0
*		ERFURT	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0

	FRANKFURT	2.4.0	1.3.0 (0.1.0)	0.0.0	2.1.0	0.0.0	0.0.0	0.0.0	1.5.0
	KARLSRUHE	2.3.0	0.1.0 (0.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	0.1.0	1.4.0
	KOBENHAVN-ZOO	2.1.0	1.0.0 (0.0.0)	0.2.0	1.0.0	0.0.0	0.0.0	0.0.0	2.3.0
	KOLMARDEN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
	KOLN	1.5.0	2.1.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	0.0.0	2.5.0
*	KRISTIANSAND	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	LJUBLJANA	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	MUNCHEN	2.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
	MUNSTER	1.1.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
*	NEUNKIRCHEN	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	NURNBERG	1.3.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.4.0
	ODENSE	1.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0
	OSNABRUCK	2.1.0	0.2.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.3.0
	PRESCOT	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
	RAMAT-GAN	0.1.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
	ROTTERDAM	2.5.0	2.1.0 (1.0.0)	0.0.0	2.0.0	0.0.0	0.0.0	0.0.0	1.6.0
	SIGEAN	2.4.0	2.0.0 (2.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	1.3.0
	ST-AIGNAN	1.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
	ST-PETERSBURG	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
	STUTTGART	3.2.0	0.0.0 (0.0.0)	0.0.0	2.0.0	0.0.0	0.0.0	0.0.0	1.2.0
*	THOIRY	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	WHIPNADE	4.2.0	1.0.0 (0.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	1.1.0	3.2.0
	WROCLAW	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	Total (36)	50.57.0	15.15.0 (3.1.0)	12.7.0	12.7.0	0.0.0	0.0.0	11.9.0	51.62.0

### Masai giraffe *Giraffa camelopardalis tippelskirchi*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		BASEL	0.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.4.0
		KIRIAT-MOTZKIN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		RAMAT-GAN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	0.0.0
		Total (3)	2.6.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0	1.4.0

### Summary

Remarks on developments during 2007:

The total population of giraffes included in the Giraffe EEP increased by 7% (46 animals) till 725 animals. This is the highest growth rate ever in this EEP. More important than the net increase in numbers, is the increase in the share of pure giraffes: now 73% of the giraffes in the EEP is listed as of a certain pure subspecies; a year before this was 72%. On average the share of pure subspecies giraffes is increasing by 1% per annum. However, the number of hybrids and unknown subspecies giraffes is still (slowly) increasing and PM2000 demonstrates that this is not longer necessary. The number of spaces for giraffes increases with the same speed as the growth in number of pure giraffes, which means we do not need to increase the number of hybrid and unknown origin giraffes. Currently measures are being undertaken to further slow down the reproduction of hybrids by actively placing as many hybrids as possible in single sex groups. This development is expected to continue and go faster in the future as more and more hybrids are being excluded from reproduction and placed in single sex groups. For that reason single sex groups of hybrids will be needed also in the future.

The number of institutions participating in the Giraffe EEP increased by one till 137 during 2007. Banham/GB and Riga/LV started keeping giraffes, while Jerusalem sent two of their offspring as a backup to Rishon Le Zion\_NE/IL. There are now 9 non-EAZA members participating in the Giraffe EEP. Obterre/FR and Bayramoglu/TU both lost their last giraffe and are at the moment not keeping giraffes.

The EAZA Giraffe and Antelope TAG decided in 2003 to keep all subspecies of giraffes separated, although it could not be proved that Kordofan and Nigerian giraffes are two subspecies. During 2007 research proved that it are indeed two subspecies, but, more important, all so-called Nigerian giraffes turned out to be Kordofan giraffes, and this also applies to the crossbreeds of these two populations. The holders of giraffes of this subspecies and the Species Committee decided to accept the results of this scientific study and this was proposed to the EAZA Giraffe and Antelope TAG, who also accepted it. So from this moment on all former Nigerian giraffes, Kordofan giraffes as well as their crossbreeds are listed as Kordofan giraffes.



## Giraffe

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Remarks on developments during 2008:

The total population of giraffes included in the Giraffe EEP increased by only 3% (29 animals) till 754 animals. This is much lower than in 2007, when the EEP grew with 6% (46 giraffes). However, this is not as bad as it sounds at the first sight. In the first place a growth of 3% is enough to fill all additional spaces in the EEP; more important is that the reduced growth is mostly realised by a strong (6%) decrease in the population of hybrids; they now comprise 'only' 25% of the population; this was 27% at the end of 2007. Currently more measures are being undertaken to further slow down the reproduction of hybrids by actively placing as many hybrids as possible in single sex groups. This development is expected to continue and go faster in the future as more and more hybrids are being excluded from reproduction and placed in single sex groups. For that reason single sex groups of hybrids will be needed also in the near future.

The number of institutions participating in the Giraffe EEP increased by six till 143 during 2008. Dresden/DE and Gdansk/PL started with an all male group, while Blackpool/GB and Ebeltoft/DK started keeping a group of hybrid females. Planckendael/BE is also a new participant; they received the breeding group of Antwerp but as part of the deal Antwerp received a hybrid female group as well. Tabernas / ES is a new member of EAZA and is keeping an all male group. No institutions gave up keeping giraffes.

General actions for the year 2009 and later:

All pure giraffe females should be brought into a breeding situation as soon as possible; this means with a male of the same subspecies and without a male of another subspecies.

More important is to further restrict the breeding of hybrid giraffes. The EEP is now slowly coming in the position that the production of pure giraffes can cope with the growth in spaces in the EEP; these additional places should be taken by pure giraffes only. The year 2009 will be mainly used to discuss with the new species committee if we can slowly put more restrictive measurements on the production of hybrids and to stop the production of hybrids. All of this needs to be done carefully to avoid empty giraffe enclosures.

As already stated last year, we should avoid that hybrid males are in a breeding situation. In those exceptional cases where hybrid females are still breeding, they should do so with pure males. That way pure males can be 'tested' for their reproductive capabilities and in case there would be pure females available for this institution in the future, they already have a pure male. All hybrid males should be placed in bachelor groups.

In new, inexperienced, institutions the mortality of giraffes turns out to be higher than in experienced institutions. This can be declared by the fact that the keepers and staff are less experienced with giraffes and the facilities have not yet been tested by giraffes. For that reason all new institutions have to start with a single sex group, either males, or hybrid females, to gain experience. Once gained positive experience and if females become available at a certain point, one could switch to a breeding group. It would not be fair if new institutions start with a breeding group, while others, who already gained experience and who followed the recommendations, have to stick to a bachelor group. Please be prepared to wait long before getting a breeding group of pure giraffes; there are already over 30 institutions waiting in line at the moment and please be aware we will always need single sex groups to control the development of the population.

Still a few institutions are transporting giraffes without approval of the Giraffe EEP to non-EEP participants. As one can see further on, there are many alternative destinations within the Giraffe EEP. As in previous years, all transfers that have not been approved by the Giraffe EEP will have to be reported to the Antelope and Giraffe TAG, in the interest of the Giraffe EEP and the institutions who are cooperating.

Future holders

EAZA institutions currently building or planning for giraffes include:

Bristol / GB	(announced 2005; no fixed plans at the moment)
Chessington / GB	(announced 2007; plans for 2010)
Cotswold / GB	(announced 2007; plans for spring 2010)
Hamerton / GB	(announced 2007; no information about exact plans)
Krakow / PL	(announced 2005; plans for September 2010)
Montpellier / FR	(announced 2007; plans for september 2009)
Plaisance du Touch / FR	(announced 2005; plans for Autumn 2010)
Plzen / CR	(announced 2008; plans for June 2010)
Szeged / HU	(announced 2008, plans for end 2009, beginning 2010)
Veszprem / HU	(announced 2008, plans for February 2010)
Zagreb / CR	(announced 2006; no fixed plans yet)

So far, only one current member of EAZA, Montpellier/FR, will start keeping giraffes in 2009. They will start with a bachelor group of (maximum) four males. Pembrokeshire/GB, is not a member of EAZA yet, but has been inspected in the meantime and are awaiting the decision of EAZA about their membership. They have constructed a giraffe house and are willing to receive a male group.

Furthermore several non-EAZA institutions are planning or building for giraffes. However, as EEPs are initiated for EAZA members and as our goal is to establish a sustainable population within EAZA, it will be clear that these non-EAZA institutions cannot receive giraffes from the EAZA population for the time being. Especially if these institutions are situated within the EAZA region, the hybrid giraffe surplus will not be solved by sending them to non-EAZA institution, as these animals as well as their offspring, might return one day. The same happened years ago for example in the black-and-white ruffed lemur EEP (*Varecia v. variegata*).

Several EAZA members showed interest to send giraffes out of the EAZA region in exchange for other species. As the EAZA Giraffe EEP so far has had a 'phase out' policy for hybrids, this should be discussed with the new EAZA Giraffe Species Committee, which is elected in early 2009. If we can exchange giraffes with institutions in other regions for other EEP animals, and if these other EEPs are benefiting from this, this option should be



## Giraffe

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seriously considered, also because it is sure that these giraffes will never return in the program because of veterinary restrictions. Institutions that have sent such requests include Amersfoort/NL, Cambron/BE, Hamburg/DE, Hilvarenbeek/NL, Leipzig/DE and Port St Père/FR. With the new species committee these proposals will be discussed, if at all giraffes can be made available, and if positive, which individuals for which goal, of course in cooperation and with permission of other EEPs.

In 2010 the current EEP coordinator (Marc Damen - [directie@rotterdamzoo.nl](mailto:directie@rotterdamzoo.nl)) will stop coordinating this EEP and hand it over to Tim Rowlands ([t.rowlands@chesterzoo.co.uk](mailto:t.rowlands@chesterzoo.co.uk)). For more general information or information about a certain subspecies, please contact one of these persons.



# Okapi

## EEP Annual Report 2007 - 2008



### 1. Programme information

Okapi

*Okapia johnstoni*

**EEP established in 1985.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

Target population size A= 130 and B= 200

#### Additional comments

In the case of the okapi, the genetic target is set for the world population (EEP + SSP populations together). The EEP population alone cannot maintain 90% of gene diversity for 100 years. Assuming that a growth rate of at least 1% can be achieved for the world population, then about 264 okapi are needed at world level to maintain 90% of the gene diversity of the source population for 100 years. In order to build in a bit of a safety margin, and because more institutions means more funding for conservation, the target population for the EEP population was set at 200 individuals.

### 2. Programme personnel

#### Species Coordinator

Kristin Leus (Antwerpen)

#### Species Committee members

Friederike von Houwald (Basel)

Ragnar Kuhne (Berlin-zoo)

John Partridge (Bristol)

Mark Pilgrim (Chester)

Pavel Moucha (Dvur-kralove)

Stefan Stadler (Frankfurt)

Bengt Holst (Kobenhavn-zoo)

Waltraut Zimmermann (Köln)

Gerd Nötzold (Leipzig)

Eric Bairrao Ruivo (Lisboa-zoo)

David Field (London)

Peter Bircher (Marwell)

Julie Villemain (Paris-zoo)

Angela Glatston (Rotterdam)

Francoise Delord (St-aignan)

Ulrike Rademacher (Stuttgart)

Ulrich Schürer (Wuppertal)

#### Nutritional advisor

Joeke Nijboer (Rotterdam)

#### Veterinary advisor

Francis Vercammen (Antwerpen)

Willem Schaftenaar (Rotterdam)

Wolfram Rietschel (Stuttgart)

### 3. Activities

#### Species Committee

Last election: No election ever held.

Last meeting: 16 September 2008 Antwerpen

#### Conservation activities

Okapi holding institutions provide yearly financial support to the Okapi Conservation Project/Okapi Wildlife Reserve in the Democratic Republic of Congo, run by Gilman International Conservation (<http://www.giconline.org/okapi.asp>).

#### Research activities

Research activities are continuing in the fields of nutrition, glucosuria, necropsy results, locomotion and leg anatomy.



# Okapi

## EEP Annual Report 2007 - 2008



### 4. Publications

#### Studbook

Recent edition: 2004

Next edition: 2010

#### Husbandry guidelines

Published prior to 1996.

### 5. Status

#### Status and developments over the year 2007 - 2008

Okapi  
*Okapia johnstoni*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ANTWERPEN	1.4.0	1.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	2.3.0
		BASEL	1.1.0	0.1.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		BERLIN-ZOO	2.2.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0
		BRISTOL	1.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		CHESTER	1.1.0	0.0.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		DVUR-KRALOVE	2.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.1.0
		FRANKFURT	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.2.0
		KOBENHAVN-ZOO	1.1.0	0.0.0 (0.0.0)	1.0.0	0.1.0	0.0.0	0.0.0	0.0.0	2.0.0
		KOLN	1.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
		LEIPZIG	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		LISBOA-ZOO	2.0.0	0.0.1 (0.0.1)	0.1.0	0.0.0	0.0.0	0.0.0	2.0.0	0.1.0
		LONDON	1.1.0	0.1.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		MARWELL	3.3.0	0.1.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	0.0.0	3.4.0
		PARIS-ZOO	0.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0
		ROTTERDAM	3.3.0	0.1.1 (0.0.1)	0.1.0	2.0.0	0.0.0	0.0.0	0.1.0	1.4.0
		ST-AIGNAN	2.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		STUTTGART	3.3.0	2.1.0 (0.1.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	4.3.0
		WUPPERTAL	1.2.0	1.1.0 (1.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		Total (18)	27.26.0	7.6.2 (1.4.2)	5.3.0	5.3.0	0.0.0	0.0.0	3.2.0	30.26.0

#### Summary

The Okapi EEP continues to suffer from a too high mortality of reproductive age animals. Although over the last decade the pre and perinatal mortality has decreased compared to the two decades before, 2007 and 2008 again saw a high mortality in this category. Over the last decade, male first year mortality in the EEP has decreased to the level of the SSP, and female first year mortality in the EEP is similar to that of the males, but much higher than female first year mortality in the SSP, which is quite low. The research undertaken aims to find underlying causes for these observations.



## Bontebok/blesbok

### ESB Annual Report 2007 - 2008



#### 1. Programme information

Bontebok  
Blesbok

*Damaliscus dorcas dorcas*  
*Damaliscus dorcas phillipsi*

**ESB established in 1995.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

#### 2. Programme personnel

**European Studbook Keeper**

Hanny Verberkmoes (Kerkrade)

#### 3. Publications

##### Studbook

Recent edition: 2008

Next edition: 2009

##### Husbandry guidelines

Not yet published.

#### 4. Status

##### Status and developments over the year 2007 - 2008

Bontebok  
*Damaliscus dorcas dorcas*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		LISBOA-ZOO	0.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0
*		TABERNAS	0.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		Total (2)	0.1.0	0.0.0 (0.0.0)	0.1.0	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0

Blesbok  
*Damaliscus dorcas phillipsi*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AACHEN	1.1.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		AVINTES	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0
		BARCELONA-ZOO	1.3.0	1.1.2 (1.0.2)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.3.0
*		BELFAST	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		BERLIN-ZOO	2.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0	1.1.0
		BORAS	1.4.0	2.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	2.5.0
		BOSSIERE-DORE	1.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
*		BUSSOLENGO	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		CHAMPREPUS	3.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.0.0
*		DEIGNE	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		DVUR-KRALOVE	3.7.0	1.3.0 (1.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	1.2.0	2.7.0
*		EBELTOFT	3.2.0	1.2.0 (0.1.0)	1.0.0	0.0.0	0.0.0	0.0.0	2.1.0	3.2.0
*		FALCONARA	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		GELSENKIRCHEN	1.2.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		HANNOVER	2.3.0	2.0.0 (0.0.0)	1.0.0	3.0.0	0.0.0	0.0.0	1.1.0	1.2.0
		HEIDELBERG	2.7.0	1.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	1.6.0
		HILVARENBEEK	2.8.0	2.4.0 (1.1.0)	1.0.0	2.1.0	0.0.0	0.0.0	1.2.0	1.8.0
		JURQUES	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.1.0	1.1.0
		KARLSRUHE	2.3.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	1.1.0	0.2.0
		KATOWICE	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.2.0
		KESSINGLAND	5.5.0	2.2.0 (2.0.0)	0.0.0	3.0.0	0.0.0	0.0.0	1.0.0	1.7.0
*		KOBENHAVN-ZOO	0.0.0	0.1.0 (0.1.0)	2.2.0	1.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		KOLMARDEN	3.4.0	3.1.1 (1.0.1)	1.0.0	0.0.0	0.0.0	0.0.0	3.0.0	3.5.0
		KRISTIANSAND	2.3.0	0.2.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	1.0.0	1.4.0
		LES-MATHES	1.2.0	1.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.2.0
		LIBEREC	2.3.0	1.1.0 (1.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	0.1.0	1.4.0
		MONTPELLIER	3.3.0	1.2.0 (0.0.0)	0.0.0	2.0.0	0.0.0	0.0.0	0.0.0	2.5.0
		MUZILLAC	8.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	4.0.0	4.0.0
		NEUWIED	0.1.0	0.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.0.0	0.4.0
		NORDHORN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	0.0.0
		OBTERRE	1.2.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.2.0
*		OSNABRUCK	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		OSTRAVA	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		PEAUGRES	1.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		PLAISANCE-TOUCH	1.3.0	0.0.0 (0.0.0)	0.0.0	1.0.0	2.0.0	0.0.0	1.0.0	1.3.0
*		PLZEN	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		PRAHA	3.6.0	4.4.0 (1.2.0)	0.0.0	3.0.0	0.0.0	0.0.0	1.2.0	2.6.0
		SIGEAN	3.3.0	1.0.1 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.3.1
		ST-AIGNAN	1.2.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
		STUTTGART	3.7.0	0.0.0 (0.0.0)	0.0.0	3.7.0	0.0.0	0.0.0	0.0.0	0.0.0
		THOIRY	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0



## Bontebok/blesbok ESB Annual Report 2007 - 2008



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*	VALENCIA-PARC	0.0.0	0.1.0 (0.0.0)	2.5.0	0.0.0	0.0.0	1.0.0	0.0.0	1.6.0
	ZLIN	4.5.0	0.0.1 (0.0.1)	0.0.0	0.1.0	0.0.0	4.0.0	0.1.0	0.3.0
	Total (43)	75.97.0	27.27.5 (10.5.4)	22.11.0	22.11.0	2.1.0	6.0.0	26.19.0	62.101.1
	Non-EAZA Institutions (7)	15.16.0	3.2.3 (0.0.3)	0.0.0	0.0.0	5.0.0	0.0.0	3.5.0	20.13.0

### Discrepancy notes

#### Blesbok

##### *Damaliscus dorcas phillipsi*

EBELTOFT Status on 1 January 2007 is 3.2.0 instead of 0.0.0. Ebeltoft joined EAZA in 2007 and was consequently not listed in the 2006 annual report.

FALCONARA Status on 1 January 2007 is 1.2.0 instead of 0.0.0 as listed on 31 December 2006.

### Summary

#### Problems in past years:

- Less females available than required (females where too young still > next year 2009 will be better).
- Large number of surplus males.
- Experiences with bachelor herds of males that are not castrated have not been very successful. Even a group of two males had to be split up during the report period. Results on the influence of castration are not yet reliably available, as first castrations only carried in 2008. Where males have been castrated no problems have been reported so far (in breeding herds as well as bachelor groups)
- A fairly large number of animals were lost during transport. Hence, the use of a tranquilizer is recommended when transporting animals.



# Dama gazelle

## EEP Annual Report 2007 - 2008



### 1. Programme information

Dama gazelle

*Gazella dama*

**EEP established in 1989.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Gerardo Espeso Pajares (Almeria)

#### Species Committee members

Gerardo Espeso (Almeria)  
Conrad Ensenat (Barcelona-zoo)  
Mark Challis (Belfast)  
Manuel Lopez (Benidorm)  
Stefan Stadler (Frankfurt)  
Jose Maria Aguilar (Jerez-frontera)  
Beatrix Kohler (Munchen)  
Angela Glatston (Rotterdam)  
Pat Milham (Twycross)

### 3. Activities

#### Species Committee

Last election: 2005  
Last meeting:

#### Conservation activities

Not specified.

#### Research activities

- Sex ratio research.
- Artificial insemination techniques.
- Embryo implants.
- In vitro fecundation.
- Blood parameters study.
- Pathology research.

### 4. Publications

#### Studbook

Recent edition: 2004  
Next edition: 2010

#### Husbandry guidelines

Not yet published.



## Dama gazelle

### EEP Annual Report 2007 - 2008



## 5. Status

### Status and developments over the year 2007 - 2008

Dama gazelle  
*Gazella dama*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALMERIA	32.52.0	25.24.0 (0.0.0)	0.0.0	2.0.0	0.0.0	17.22.0	0.0.0	38.54.0
		BARCELONA-ZOO	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		BELFAST	0.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0
		BERLIN-TIERPARK	1.8.0	2.2.0 (0.0.0)	1.0.0	0.2.0	0.0.0	0.0.0	2.1.0	2.7.0
*		BUDAPEST	0.0.0	0.0.0 (0.0.0)	1.4.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		FRANKFURT	1.7.0	1.6.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.5.0	2.6.0
		JEREZ-FRONTERA	5.5.0	2.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0	4.3.0
		MADRID-ZOO	1.2.0	3.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	2.1.0	3.3.0
		MONTPELLIER	3.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	3.0.0
		MUNCHEN	4.12.0	5.8.0 (0.0.0)	0.2.0	2.2.0	0.0.0	0.0.0	2.4.0	5.16.0
		ROTTERDAM	2.5.0	0.1.0 (0.0.0)	1.2.0	1.2.0	0.0.0	0.0.0	1.0.0	1.6.0
*		TABERNAS	5.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0	2.0.0
		TWYXCROSS	3.0.0	0.0.0 (0.0.0)	0.0.0	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		VERGEL_NE	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	2.0.0
*		WOBURN	0.0.0	0.0.0 (0.0.0)	3.1.0	0.0.0	0.0.0	0.0.0	1.0.0	2.1.0
		Total (15)	62.94.0	38.43.0 (0.0.0)	8.9.0	8.9.0	0.0.0	17.22.0	17.13.0	66.102.0

### Summary

The main aim of the Dama gazelle EEP is to have a secure population of gazelles distributed among several zoos and the successful reintroduction of gazelles into their area of origin. To achieve this it is necessary to increase the population in order to make it more viable. Any reintroduction projects should be presented to the EEP coordinator and bonds between ongoing reintroduction projects and the EEP will need to be strengthened in the future.

Research is also a main task of the EEP programme and will focus on improving and establishing tools for the management of the captive populations.

Three new institutions, namely Woburn Zoo, Budapest Zoo and Tabernas zoo, joined to the program during the reporting period. Twycross and Belfast left the programme. A total of 31 animals have been transferred between institutions and the total captive population is increasing slowly.

### Notes

New publications:

Ruiz-López, M., Roldán E.R.S., Espeso G., Gomendio M. (2009). PEDIGREES AND MICROSATELLITES AMONG ENDANGERED UNGULATES: WHAT DO THEY TELL US ?. *Molecular Ecology* (2009) 18, 1352-1364

Moreno, E., & Espeso, G. (2008) Cuvier's gazelle, *Gazella Cuvieri* International Studbook. Managing and husbandry guidelines. Edit by Ayuntamiento de Roquetas de Mar. Almería. 152 pp. ISBN: 978-84-936827-0-5.

Gonzalez R., Berlinguer F., Espeso G., Ariu F., Del Olmo A., Garde J.J., Gomendio M., Ledda S., Roldan E.R.S. (2008). USE OF A NEUROLEPTIC IN ASSISTED REPRODUCTION OF THE CRITICALLY ENDANGERED MOHOR GAZELLE (*Gazella dama mhorr*) *Theriogenology* 69: 349-359.

Garde J.J., Del Olmo A., Soler A.J., Espeso G., Gomendio M., Roldan E.R.S. (2008) EFFECT OF SUGARS, EGG-YOLK AND GLICEROL ON SEMEN CRYOPRESERVATION OF ENDANGERED CUVIER'S GAZELLE (*Gazella cuvieri*) *Animal Reproduction Science*. 108 (2008) 384-401

Berlinguer F., Gonzalez R., Succu S., Del Olmo A., Garde J.J., Espeso G., Gomendio M., Ledda S., Roldan E.R.S. (2008). IN VITRO OOCYTE MATURATION, FERTILIZATION AND CULTURE AFTER OVUM PICK-UP IN AN ENDANGERED GAZELLE (*Gazella dama mhorr*). *Theriogenology* 69, 349-359.



# Saharawi dorcas gazelle

## EEP Annual Report 2007 - 2008



### 1. Programme information

Saharawi dorcas gazelle

*Gazella dorcas neglecta*

**EEP established in 2002.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Teresa Abaigar (Almeria)

### 3. Activities

#### Species Committee

Last election: Over 5 years ago.

Last meeting: 18 September 2008 Antwerpen

#### Conservation activities

- Surveys of wild populations in Banc d'Arguin National Park (Mauritania) 2005-2008.
- Survey of wild populations Grand Erg Occidental (Algeria) 2008.
- Reintroduction project of dorcas gazelle in Senegal, 2005-2011.

#### Research activities

Genetic characterization of dorcas gazelle populations in Morocco.

### 4. Publications

#### Studbook

Recent edition: 2008

Next edition: 2010

#### Husbandry guidelines

Not yet published.

### 5. Status

#### Status and developments over the year 2007 - 2008

Saharawi dorcas gazelle  
*Gazella dorcas neglecta*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALMERIA	38.49.0	24.21.0 (0.0.0)	8.8.0	1.0.0	2.0.0	7.14.0	13.13.0	51.51.0
		BARCELONA-ZOO	8.8.0	1.10.0 (0.0.0)	3.0.0	4.0.0	0.0.0	0.0.0	2.5.0	6.13.0
*		DOUE-FONTAINE	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		HANNOVER	3.7.0	4.2.0 (0.0.0)	2.0.0	6.3.0	0.0.0	0.2.0	2.2.0	1.2.0
		JEREZ-FRONTERA	6.7.0	3.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	7.2.0	2.7.0
		MADRID-ZOO	8.7.0	5.3.0 (0.0.0)	1.0.0	1.2.0	0.0.0	0.0.0	6.2.0	7.6.0
		MARWELL	6.15.0	4.1.0 (0.0.0)	1.0.0	5.6.0	0.0.0	0.0.0	3.3.0	3.7.0
*		STUTT GART	0.0.0	0.0.0 (0.0.0)	2.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
*		TABERNAS	5.0.0	1.0.0 (0.0.0)	0.2.0	3.0.0	0.0.0	0.1.0	0.0.0	3.1.0
		Total (9)	74.93.0	42.39.0 (0.0.0)	20.11.0	20.11.0	2.0.0	7.17.0	33.27.0	78.88.0

#### Discrepancy notes

Saharawi dorcas gazelle  
*Gazella dorcas neglecta*

ALMERIA

Status at 1 January 2007 is 38.49.0 instead of 37.47.0 as listed on 31 December 2006.

#### Summary

Not specified.



## Saharawi dorcas gazelle

### EEP Annual Report 2007 - 2008



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#### Notes

Status of *Gazella dorcas neglecta* at non-EEP zoos as per 31/12/2008:

\* Núcleo Zoológico "Coronel Duyos", Nueva de Llanes (Asturias, Spain): (1.5)

\* Reserve de Faune de Guembeul (Senegal): (12.24)

International Studbook published in 2009 with updated data till 31/12/2008.

More information: [abaigar@eeza.csic.es](mailto:abaigar@eeza.csic.es)



# Cuvier's gazelle

## EEP Annual Report 2007 - 2008



### 1. Programme information

Cuvier's gazelle

*Gazella cuvieri*

**EEP established in 2007.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Eulalia Moreno (Almeria)

### 3. Activities

#### Species Committee

Last election: No election ever held.

Last meeting:

#### Conservation activities

Not specified.

#### Research activities

The captive population of Cuvier's gazelle in Almería is included in a research project on host-parasite interactions along a latitudinal gradient. The Estación Experimental de Zona Áridas (CSIC-Almería), University of Murcia and Marwell Zoo are involved in the project, and look for more collaborators among the zoos included within this EEP.

A PhD is being undertaken on "Demographical study and consanguinity in captive populations of two endangered gazelles: Cuvier's and mhorr gazelles".

### 4. Publications

#### Studbook

Recent edition: 2008

Next edition: 2011

#### Husbandry guidelines

Published in 2008.

### 5. Status

#### Status and developments over the year 2007 - 2008

Cuvier's gazelle

*Gazella cuvieri*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
*		ALMERIA	41.56.0	47.40.0 (0.0.0)	1.0.0	9.0.0	0.0.0	0.0.0	17.18.0	63.78.0
*		ESTEPONA	0.0.0	0.0.0 (0.0.0)	5.0.0	0.0.0	0.0.0	0.0.0	2.0.0	3.0.0
*		TABERNAS	1.0.0	0.0.0 (0.0.0)	4.0.0	1.0.0	0.0.0	0.0.0	1.0.0	3.0.0
		Total (3)	42.56.0	47.40.0 (0.0.0)	10.0.0	10.0.0	0.0.0	0.0.0	20.18.0	69.78.0

#### Summary

The EEP has recently started, and new institutions to hold animals are needed.

Three EAZA institutions belong to the EEP. A non-EAZA institution, La Lajita, Fuerteventura has several animals and a breeding stock.



# Kirk's dik-dik

## ESB Annual Report 2007 - 2008



### 1. Programme information

Kirk's dik-dik

*Madoqua kirkii*

#### ESB established in 1999.

#### Goal(s)

Percentage of gene diversity 71% saved in 100 years.

Target population size A= 160 and B= 90

#### Additional comments

Maintaining 90% gene diversity in 100 years with the current population is not possible. In order to maintain a gene diversity of 70% in 100 years, without importing new founders the population size need to increase to 190 animals. Adding 8 new founders and increasing the population size to 160 animals makes it possible to retain 81% of gene diversity in 100 years. Current gene diversity is 82% with 70 animals. In the next 10 years the Kirk's dik-dik population in Europe needs at least 4 new founders.

### 2. Programme personnel

#### European Studbook Keeper

Klaus Muller-Schilling (Hannover)

### 3. Publications

#### Studbook

Recent edition: 2006

Next edition: 2011

#### Husbandry guidelines

Published in 2003.



# Kirk's dik-dik ESB Annual Report 2007 - 2008



## 4. Status

### Status and developments over the year 2007 - 2008

Kirk's dik-dik  
*Madoqua kirkii*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AMNEVILLE	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		ARNHEM	2.3.0	0.1.0 (0.1.0)	1.0.0	2.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		BASEL	1.0.0	1.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	2.1.0	0.0.0
		BERLIN-ZOO	1.3.0	5.2.0 (2.1.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0	4.3.0
		BOJNICE	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
*		CHESTER	0.0.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		COLCHESTER	2.1.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		DUBAI-WC	5.6.1	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	4.6.1
		DUISBURG	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		DVUR-KRALOVE	1.2.0	1.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.4.0
*		EBELTOFT	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	0.0.0
		EDINBURGH	5.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	4.0.0
*		EPE	0.0.0	2.1.0 (1.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		HANNOVER	4.12.0	8.9.0 (3.4.0)	2.0.0	8.6.0	0.0.0	0.0.0	0.3.0	3.8.0
		KERKRADE	1.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	1.1.0	1.1.0
		LANDAU	0.1.0	1.0.1 (0.0.1)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		LODZ	1.1.0	2.1.0 (1.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0	3.1.0
*		MONTPELLIER	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		PARIS-JARDIN	1.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		PLEUGUENEUC	2.0.0	0.0.0 (0.0.0)	1.1.0	1.0.0	0.0.0	0.0.0	1.0.0	1.1.0
		ROTTERDAM	1.3.0	1.3.0 (0.0.0)	0.1.0	1.4.0	0.0.0	0.0.0	0.1.0	1.2.0
*		VALENCIA-PARC	0.0.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		Total (22)	32.36.1	21.20.1 (7.6.1)	13.10.0	13.10.0	0.0.0	0.0.0	8.12.0	38.38.1
*		Non-EAZA Institutions	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	5.4.0	0.0.0	1.2.0	4.2.0

### Discrepancy notes

Kirk's dik-dik  
*Madoqua kirkii*

EBELTOFT	Ebeltoft Safari joined EAZA and consequently the ESB in 2007.
Non-EAZA Institutions	Tiblissi Zoo/ Georgia

### Summary

In 2007 37.40.3 Kirk's dik-dik were held in twenty European zoos. During the year 23 dik-dik were born and 18 animals died. In 2007 there was no import of new animals.

The founder population from Maktoum and Hannover were caught in Tanzania. The origin of the wildborn dik-dik female from Rotterdam is unknown. Imports of new founder animals are needed to maintain a viable population (see goals).



# Lowland nyala

## ESB Annual Report 2007 - 2008



### 1. Programme information

Lowland nyala

*Tragelaphus angasii*

**ESB established in 1996.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### European Studbook Keeper

Jose Dias Ferreira (Lisboa-zoo)

Lucilia Tiberio (Lisboa-zoo)

### 3. Publications

#### Studbook

Recent edition: 2008

Next edition: 2010

#### Husbandry guidelines

Not yet published.

#### 4. Status

##### Status and developments over the year 2007 - 2008

Lowland nyala  
*Tragelaphus angasii*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
*		ALMATY	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	1.2.0
		BERLIN-ZOO	1.3.0	0.1.0 (0.0.0)	1.0.0	0.2.0	0.0.0	0.0.0	0.1.0	2.1.0
		DOMPIERRE	2.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		DRESDEN	4.6.0	1.4.1 (0.0.0)	0.0.0	3.5.0	0.0.0	0.0.0	0.0.0	2.5.1
		DUBAI-WC	2.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.4.0
		DUISBURG	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	0.0.0
		DVUR-KRALOVE	9.18.0	8.15.0 (1.2.0)	0.0.0	2.3.0	0.0.0	0.0.0	5.4.0	9.24.0
*		EDINBURGH	1.0.0	2.3.1 (0.1.1)	3.4.0	0.0.0	0.0.0	0.0.0	1.0.0	5.6.0
		GELSENKIRCHEN	1.3.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.4.0
		HANNOVER	4.11.0	1.4.0 (0.0.0)	0.0.0	1.2.0	0.0.0	1.1.0	0.1.0	3.11.0
		HILVARENBEEK	1.3.0	3.1.1 (2.0.1)	1.6.0	1.0.0	0.0.0	0.0.0	1.2.0	1.8.0
		KATOWICE	5.3.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	2.0.0	2.2.0	2.1.0
		KESSINGLAND	2.0.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	1.0.0	1.2.0
		KIRIAT-MOTZKIN	1.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		KREFELD	2.2.0	0.2.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		KREINGLBACH	5.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	5.3.0
*		KRONBERG	0.5.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		LISBOA-ZOO	1.3.0	1.1.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	0.2.0	2.2.0
		LONDON	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.0.0
		MARWELL	11.14.0	2.6.0 (1.1.0)	0.0.0	8.2.0	0.0.0	0.0.0	3.2.0	1.15.0
*		MONTPELLIER	1.1.0	0.0.0 (0.0.0)	1.1.0	1.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		MUNCHEN	1.5.0	2.3.1 (0.0.1)	0.2.0	1.0.0	0.0.0	0.2.0	1.1.0	1.7.0
*		PLOCK	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
*		PLZEN	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		PRESCOT	0.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0
		RAMAT-GAN	1.5.15	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.15
*		WARMINSTER	0.0.0	0.0.0 (0.0.0)	8.0.0	0.0.0	0.0.0	0.0.0	0.0.0	8.0.0
		WIEN-ZOO	3.9.0	7.4.1 (0.0.1)	0.0.0	1.2.0	0.0.0	0.1.0	5.3.0	4.7.0
		Total (28)	62.108.15	27.45.5 (4.4.4)	20.16.0	20.16.0	0.0.0	3.4.0	21.22.0	61.123.16

#### Summary

Not specified.

#### Notes

Thanks to Susana Nolasco (Lisbon Zoo) for providing the annual report for 2007-2008. Susana will take over as ESB keeper in 2009.



## Eastern bongo

### EEP Annual Report 2007 - 2008



#### 1. Programme information

Eastern bongo

*Tragelaphus eurycerus isaaci*

**EEP established in 1987.**

##### Goal(s)

Percentage of gene diversity 87% saved in 100 years.

Target population size A= 339 and B= 350

##### Additional comments

The goal of 87% genetic diversity is in fact 87% of the total brought into Europe in 100 years time based on the fact that there is only 92% of that total currently available. Therefore, this goal reflects an aspiration to retain ~95% of the current genetic diversity available over the next 100 years or 87% of the original over the ~140 years since this bongo population was first brought into Europe.

These ambitious goals can only be achieved by strict and proactive management. As the population expands, the ability to manage this population becomes more problematic, in fact if the population is allowed to expand exponentially, with the inevitable relaxation in management that would result, PM2000 suggests it cannot reach as ambitious goals as it can if it is carefully managed with fewer animals. The evidence of the first three decades of captive management supports this belief, as does the Vortex simulation for the growth of the wild population in the absence of management. The Vortex prediction for wild bongo reveal these populations lose genetic diversity at a rate almost five times greater than can be retained within the EEP in part due to the fact that one male may monopolize many females.

Thus, reproduction must continue to be targeted in genetically important animals, now and into the future. As a result, the rate of population growth needs to be reduced, and the movement of animals within the EEP needs to be maintained. In particular, breeding in over-represented lines needs to be halted for several years at least until the founder representation is more evenly distributed.

#### 2. Programme personnel

##### Species Coordinator

Jake Veasey (Woburn)

##### Species Committee members

Mark Challis (Belfast)

Jiri Hruby (Dvur-kralove)

Richard Osterballe (Givskud)

Thierry Jardin (Lisieux)

Marleen Huyghe (Mechelen)

Christelle Vitaud (Peaugres)

##### Veterinary advisor

Sarah Hewitt (Paignton)



### 3. Activities

#### Species Committee

Last election: 2004  
Last meeting: 18 September 2008 Antwerpen

#### Conservation activities

The eastern or mountain bongo is currently only found in the wild in Kenya; surveys carried out by the Bongo Surveillance Programme (BSP) confirm the existence of remnant populations in four isolated locations with no scope for natural migration between them; the Aberdare National Park, Eburu, Mau and Mount Kenya Forests. In the early 80's it was estimated that the wild population of bongo in the Aberdares alone was well in excess of 500, however, in the last few decades there has been a rapid decline in the numbers of bongo due to poaching and human pressure on their habitat, with local extinctions in Cherangani, Mount Loldiani and potentially Mount Elgon and Chepalungu Hills. Wild bongo numbers in Kenya may now be as low as 100 or so animals. In 2004, a group of 18 Bongo were exported from North America to a captive facility at the Mount Kenya Wildlife Conservancy at Nanyuki where they joined a pre-existing captive herd. Despite a high level of mortality in the repatriated animals as a result of them succumbing to theileriosis, this captive herd has expanded and there is mounting pressure to release these animals into the Mount Kenya World Heritage Site.

During the course of 2007, links were established between the EEP and the Bongo Surveillance Programme (BSP) who operate primarily within the Aberdares but also in Mount Kenya, Eberu and Mau forests, and through them, the Kenya Wildlife Service. During the course of an expedition in 2008, in conjunction with the BSP, a population viability assessment on the remaining wild bongo was carried out using information provided by the BSP and the EEP. The BSP estimate the size wild bongo populations in Kenya to range from 50-80 in the Aberdares, 5-15 in the Mau, 5-20 in Eburu and 5-15 in Mount Kenya; meaning a total population of approximately 65-130 across Kenya as of August 2008. Based on a current assessment of the state of eastern bongo populations in Kenya, the degree of protection afforded to the known populations, as well as numerous other educated assumptions agreed with the BSP; a Vortex simulation revealed there is an extremely high likelihood (~93%) of the eastern bongo becoming extinct across Kenya within the next 50 years, most likely in the next 30 years as the situation currently stands. This surely makes the eastern bongo one of the most endangered large mammals in sub-Saharan Africa. However, with comprehensive protection on all four sites, the likelihood of extinction falls to 12% over 50 years with an expected loss in genetic diversity of 13%, highlighting the need for an effective meta-population management for this species as well as comprehensive protection. Over the next few years, it is hoped that working with the Kenya Wildlife Service and the Bongo Surveillance Programme, a comprehensive conservation strategy can be developed to help secure the species in the wild, but also provide a framework in which its genetic diversity can be conserved through a global management plan.

During the course of the visit, a commitment was made to the Kenya Wildlife Service on behalf of the Eastern bongo EEP to provide what support could be made available for this species within Kenya, including making bongo available to them as and when required.

#### Research activities

There are four principle research priorities over the coming years.

1. Review the relative genetic diversity and relatedness of all wild and captive bongo populations. This would be necessary to implement a global meta-population management plan in order to secure genetic diversity long term in the wild. Data from zoo animals is comparatively straightforward to collect; genetic data from the wild will be collected by the Bongo Surveillance Programme collecting faecal samples in the field as part of the ongoing fieldwork.
2. Investigate the incidence and significance of a chronic wasting condition seen in some captive bongo. The veterinary advisor for the EEP is collating data relating to bongo mortality following a period of chronic weight loss in an attempt to determine the cause, significance and possible treatment of this condition.
3. Develop a protocol for the effective transfer of bongo embryos. In order to most effectively implement a global meta-population management plan should that situation arise, a methodology of inserting captive bred embryos into captive surrogates in situ in Kenya, such as those at Nanyuki, could prove to be a vital tool to secure genetic diversity in the remaining wild populations which eliminate much of the risk, stress and cost of repatriating live bongo.
4. Develop a selective reversible contraception for bongo. In order to achieve the ambitious genetic goals within the Eastern bongo EEP there is a need to target reproduction in higher ranking animals. Since bongos are typically managed in a herd situation, it would be desirable to contracept lower ranking females.

### 4. Publications

#### Studbook

Recent edition: 2006  
Next edition: 2007

#### Husbandry guidelines

Not yet published.

## 5. Status

### Status and developments over the year 2007 - 2008

Eastern bongo  
*Tragelaphus eurycerus isaaci*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ANTWERPEN	0.3.0	0.1.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.4.0
		ARNHEM	1.4.0	2.0.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	1.1.0	2.1.0
		BARCELONA-AQUA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		BEKESBOURNE	1.5.0	1.1.0 (0.0.0)	0.1.0	0.1.0	0.0.0	0.0.0	0.1.0	2.5.0
		BELFAST	1.6.0	4.4.0 (2.1.0)	0.0.0	0.3.0	0.0.0	0.0.0	0.2.0	3.4.0
		BERGAMO_NE	1.2.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		BERLIN-ZOO	1.4.0	1.5.0 (0.1.0)	2.0.0	2.0.0	0.0.0	0.0.0	1.1.0	1.7.0
		BLACKPOOL	1.4.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.4.0
		BOJNICE	1.5.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.7.0
*		BORAS	0.0.0	0.0.0 (0.0.0)	0.5.0	0.0.0	0.0.0	0.0.0	0.0.0	0.5.0
		CHESTER	3.3.0	1.1.0 (0.0.0)	0.0.0	3.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		DUBAI-WC	2.2.0	3.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	4.1.0
		DUBLIN	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		DUISBURG	2.1.0	1.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	3.1.0
		DVUR-KRALOVE	1.8.0	2.3.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	1.10.0
		EBELTOFT	3.0.0	0.0.0 (0.0.0)	4.0.0	2.0.0	0.0.0	0.0.0	1.0.0	4.0.0
		EDINBURGH	1.4.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.4.0	1.2.0
		FRANKFURT	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		GIVSKUD	4.7.0	1.7.0 (0.1.0)	1.0.0	4.5.0	0.0.0	0.0.0	1.1.0	1.7.0
		JEREZ-FRONTERA	1.1.0	0.1.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		KERKRADE	1.2.0	0.2.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		KRAKOW	1.2.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.2.0
		LIBEREC	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		LISBOA-ZOO	2.3.0	3.2.0 (0.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	0.0.0	4.6.0
		LISIEUX	1.2.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.2.0
		LYMPNE	1.2.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		MADRID-ZOO	1.1.0	0.0.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	1.0.0	0.1.0
		MAGDEBURG	1.1.0	1.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		MARWELL	1.10.0	1.0.0 (0.0.0)	0.0.0	1.2.0	0.0.0	0.0.0	0.1.0	1.7.0
		MECHELEN	0.3.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.2.0
		MONTPELLIER	1.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		MUNSTER	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		NURNBERG	1.2.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	1.1.0	0.0.0
*		OPOLE	0.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		PAIGNTON	2.6.0	1.2.0 (1.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.7.0
		PEAUGRES	3.4.0	0.0.1 (0.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.4.0
		PRAHA	7.7.0	1.2.0 (1.2.0)	0.0.0	3.0.0	0.0.0	0.2.0	1.2.0	3.3.0
		PRESCOT	1.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		RHENEN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		ROTTERDAM	1.4.0	0.0.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	1.0.0	0.4.0
		STUTTGART	3.3.0	0.2.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	1.0.0	1.4.0
		THOIRY	4.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	1.0.0	5.0.0
*		VALENCIA-PARC	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.0.0
		WARMINSTER	3.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	2.0.0	3.0.0
		WARSZAWA	1.4.0	2.2.0 (1.2.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		WHIPSNADE	3.5.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.5.0
		WOBURN	1.6.0	2.3.0 (2.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	1.2.0	1.8.0
		WUPPERTAL	0.4.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.4.0	0.0.0
		Total (48)	70.144.0	28.43.1 (8.9.1)	23.16.0	23.16.0	0.0.0	0.2.0	19.29.0	71.147.0



## Eastern bongo

### EEP Annual Report 2007 - 2008



#### Summary

The Eastern bongo EEP was 20 years old in 2007. However, in that time, 8% of the original genetic diversity had already been lost. However, with 29 founders, caught singly over several years, there is still a healthy founder base to work with. Furthermore, this EEP benefits from having 100% known ancestry.

Since 2004, by focusing on bringing genetically important bongo into reproductive situations within the EEP, the predicted rate of genetic drift has been dramatically reduced in comparison to the historic rate. So much so in fact, that the estimated rate of genetic drift in the wild under the most optimistic of scenarios; with a complete cessation of poaching and habitat loss, is still six times greater than is predicted to be achieved within the EEP according to PM2000 and Vortex simulations.

These Vortex simulations for bongo in Kenya predict that as things stand, the Eastern bongo will in all probability be extinct in the wild within the next 30 years, and even with total protection of animals and habitat, this species will need careful genetic management. It is for this reason that the EEP population must be considered as a vital conservation resource irrespective of the fate of bongo in the wild.

The EEP population is in excellent health, a situation which contrasts dramatically with eastern bongo in the wild. Over the next few years it is planned to continue to maintain the population at an optimal level for effective genetic management rather than allow it to grow unchecked with all the issues inherent in that for bongo and other species they may displace. In addition to ex situ efforts, it is hoped the EEP will expand its role in situ to assist in the conservation of this species in the wild.



# Lesser kudu

## ESB Annual Report 2007 - 2008



### 1. Programme information

Lesser kudu

*Tragelaphus imberbis*

**ESB established in 1997.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

**European Studbook Keeper**

Pavel Moucha (Dvur-kralove)

### 3. Publications

#### Studbook

Recent edition: 2008

Next edition: 2009

#### Husbandry guidelines

Not yet published.

### 4. Status

#### Status and developments over the year 2007 - 2008

Lesser kudu

*Tragelaphus imberbis*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		BASEL	3.5.0	7.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	6.0.0	3.5.0
		DVUR-KRALOVE	10.23.0	10.12.0 (0.0.0)	1.0.0	1.3.0	0.0.0	5.0.0	8.9.0	7.23.0
		EDINBURGH	1.3.0	1.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	2.1.0	1.2.0
		HANNOVER	2.5.0	3.1.0 (0.0.0)	0.0.0	2.3.0	0.0.0	0.0.0	0.1.0	3.2.0
*		LODZ	0.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		MONTPELLIER	3.0.0	0.0.0 (0.0.0)	2.2.0	1.0.0	0.0.0	0.0.0	2.0.0	2.2.0
		OSNABRUCK	1.1.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	2.2.0	0.1.0
		STUTTGART	3.5.0	2.1.0 (0.0.0)	1.0.0	2.0.0	0.0.0	0.0.0	1.1.0	3.5.0
		Total (8)	23.42.0	23.14.0 (0.0.0)	7.6.0	7.6.0	0.0.0	5.0.0	21.14.0	20.42.0
		Non-EAZA Institutions	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.2.0

#### Summary

The lesser kudu population remains stable at around 60 animals. Breeding is problematic and is maintained through experience of four major breeders. Establishing stable breeding groups in other EAZA zoos have failed despite repeated efforts.

#### Notes

Increasing inbreeding in the population has so far not shown any negative effect on offspring. Unclear genetic origins of the founders still did not allow the importation of new blood.



## Western sitatunga

### ESB Annual Report 2007 - 2008



#### 1. Programme information

Western sitatunga

*Tragelaphus spekii gratus*

**ESB established in 1999.**

##### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

Target population size A= 450 and B= 450

#### 2. Programme personnel

**European Studbook Keeper**

Peter Zwanzger (Köln)

#### 3. Publications

##### Studbook

Recent edition: Not yet published.

Next edition: 2010

##### Husbandry guidelines

Not yet published.

#### 4. Status

##### Status and developments over the year 2007 - 2008

Western sitatunga  
*Tragelaphus speki gratus*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AMSTERDAM	1.8.0	2.6.2 (2.3.2)	0.0.0	0.2.0	0.0.0	0.0.0	1.2.0	0.7.0
		ATHINAI	2.2.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.4.0
		BALLAUGH	0.2.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		BELFAST	4.5.0	3.3.0 (1.2.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	5.5.0
		BERLIN-ZOO	2.6.0	2.5.0 (0.1.0)	0.0.0	0.0.0	0.0.0	3.0.0	0.2.0	1.8.0
		BLACKPOOL	2.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.4.0
*		BRATISLAVA	0.0.0	0.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0
*		BUSSOLENGO	0.0.0	0.0.0 (0.0.0)	2.3.0	0.0.0	0.0.0	0.0.0	0.0.0	2.3.0
		CAMBRON-CASTEAU	3.2.0	0.0.1 (0.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	1.2.0
		CHARD	4.5.0	1.0.3 (0.0.2)	0.0.0	0.0.0	0.0.0	3.0.0	0.0.0	2.5.1
		CHESTER	5.9.0	11.5.4 (2.0.3)	0.0.0	1.0.0	0.0.0	7.5.0	0.0.1	6.9.0
		DEIGNE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DOMPIERRE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		DVUR-KRALOVE	2.8.0	2.7.0 (0.2.0)	1.2.0	0.0.0	0.0.0	3.2.0	1.2.0	1.11.0
		FUENGIROLA	1.6.0	0.2.0 (0.0.0)	0.0.0	0.3.0	0.0.0	0.0.0	1.0.0	0.5.0
		GDANSK	2.7.0	3.3.1 (3.2.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	2.6.1
		GELSENKIRCHEN	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		HILVARENBEEK	5.16.0	4.4.0 (2.2.0)	0.0.0	2.3.0	0.0.0	0.0.0	4.1.0	1.14.0
		KATOWICE	3.8.0	6.6.1 (2.1.0)	0.0.0	0.0.0	1.0.0	3.2.0	0.2.0	5.9.1
		KESSINGLAND	0.6.0	2.3.0 (2.1.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.7.0
		KOLN	1.3.0	1.4.0 (1.2.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.5.0
*		KREINGLBACH	0.0.0	0.0.1 (0.0.0)	1.3.0	0.0.0	0.0.0	0.0.0	0.1.0	1.2.1
		LISBOA-ZOO	3.4.0	0.7.0 (0.2.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	2.9.0
		LODZ	3.4.0	2.2.0 (1.1.0)	0.0.0	0.0.0	0.0.0	3.0.0	0.0.0	1.5.0
		LYMPNE	1.5.0	1.0.3 (0.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.4.2
		MADRID-ZOO	9.13.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	1.0.0	7.13.0
		MARWELL	1.12.0	9.11.1 (6.4.1)	0.0.0	1.0.0	0.0.0	0.0.0	0.4.0	3.15.0
		MECHELEN	2.7.0	5.4.2 (2.3.2)	0.0.0	0.0.0	0.0.0	0.0.0	3.4.0	2.4.0
		MULHOUSE	5.11.0	7.5.0 (6.4.0)	0.0.0	1.3.0	0.0.0	0.0.0	1.1.0	4.8.0
		NYIREGYHAZA	0.3.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0	0.1.0
		OBTERRE	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	2.0.0
		ODENSE	4.4.0	3.2.2 (1.0.2)	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0	3.4.0
		OPOLE	1.7.0	5.5.0 (4.3.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.8.0
		PARIS-ZOO	3.4.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.4.0
		PLZEN	1.2.0	1.4.0 (0.0.0)	0.2.0	0.3.0	0.0.0	0.0.0	1.1.0	1.4.0
		POZNAN	4.13.0	5.5.1 (3.5.1)	0.0.0	0.0.0	0.0.0	4.2.0	0.6.0	2.5.0
		PRAHA	6.7.0	6.5.0 (2.2.0)	0.0.0	0.2.0	0.0.0	0.0.0	2.0.0	8.8.0
		PRESCOT	3.5.0	6.1.2 (2.1.1)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	6.4.1
		RHEINE	3.11.0	7.5.0 (3.1.0)	0.0.0	0.0.0	0.0.0	3.1.0	2.4.0	2.10.0
		SALZBURG-ZOO	3.4.0	3.4.0 (0.1.0)	0.0.0	0.0.0	0.0.0	3.1.0	0.1.0	3.5.0
		SIGEAN	9.13.5	0.0.2 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	4.2.4	5.11.3
		ST-AIGNAN	2.5.0	4.1.0 (2.1.0)	1.0.0	1.0.0	0.0.0	0.0.0	0.3.0	4.2.0
		ST-MARTIN-PLAIN	1.4.0	3.3.0 (1.2.0)	0.0.0	0.0.0	0.1.0	0.0.0	1.4.0	2.2.0
		SZEGED	1.2.0	1.1.0 (0.0.0)	0.0.0	0.0.0	1.0.0	1.3.0	2.0.0	0.0.0
		THOIRY	2.16.0	10.9.1 (4.4.1)	1.0.0	1.0.0	0.0.0	0.0.0	2.4.0	6.17.0
*		VALENCIA-PARC	0.0.0	2.1.1 (1.0.1)	1.3.0	0.0.0	0.0.0	0.0.0	0.0.0	2.4.0
		WARSZAWA	2.6.0	4.4.0 (0.0.0)	0.0.0	0.0.0	0.0.0	2.2.0	0.0.0	4.8.0
		WHIPSNADE	1.10.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.10.0
		WOBURN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		WROCLAW	1.4.0	4.3.0 (2.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	2.6.0



## Western sitatunga ESB Annual Report 2007 - 2008



ZAGREB	3.6.0	2.3.0 (0.0.0)	0.0.0	0.0.0	0.0.0	2.2.0	1.1.0	2.6.0
Total (51)	119.284.5	127.136.28 (55.50.18)	10.16.0	10.16.0	2.1.0	37.20.0	40.60.5	116.291.10
Non-EAZA Institutions (17)	13.33.4	1.6.9 (0.1.2)	0.0.0	0.0.0	20.20.0	1.5.4	12.4.0	21.49.7

### Discrepancy notes

Western sitatunga

*Tragelaphus spekii gratus*

LYMPNE	Status on 1 January 2007 is 1.5.0 instead of 1.4.1 as listed on 31 December 2006
MECHELEN	Status on 1 January 2007 is 2.7.0 instead of 2.4.3 as listed on 31 December 2006
ODENSE	Status on 1 January 2007 is 4.4.0 instead of 4.4.1 as listed on 31 December 2006.
POZNAN	Status on 1 January 2007 is 4.13.0 instead of 4.12.1 as listed on 31 December 2006.
SIGEAN	Status on 1 January 2007 is 9.13.5 instead of 10.13.3 as listed on 31 December 2006.
Non-EAZA Institutions (17)	Status on 1 January 2007 is 13.33.4 instead of 10.31.5 as listed on 31 December 2006.

### Summary

For the first time in a number of years, the sitatunga population in Europe increased considerably during 2007 (from 408 to 426 individuals in EAZA zoos). This was caused not only by a high number of births but also by a comparably low mortality rate of adults. The opposite has happened in 2008 when the population decreased to 417 sitatunga.

Details for the year 2007:

- 408 (119.284.5) individuals kept in 47 EAZA zoos as of 1 January 2007.
- 145 (63.64.18) born during 2007 of which 62 (27.22.13) did not survive.
- 13 (5.8) transfers between EAZA zoos.
- 25 (16.9) transfers to non-EAZA zoos or animal dealers.
- (1.0) transfer from a non-EAZA zoo to an EAZA zoo.
- 41 (17.20.4) deaths.
- 426 (123.297.6) individuals kept in 48 EAZA zoos as of 31 December 2007. Plus more than 60 further individuals being kept in 14 non-EAZA zoos, bringing the total ESB population living as of 31 December 2007 close to 500 sitatunga!

Details for the year 2008:

- 426 (123.297.6) individuals kept in 48 EAZA zoos as of 1 January 2008.
- 146 (64.72.10) born during 2008 of which 61 (28.28.5) did not survive.
- 13 (5.8) transfers between EAZA zoos.
- 32 (21.11) transfers to non-EAZA zoos or animal dealers.
- 2 (1.1) individuals from non-EAZA sources to EAZA zoos.
- 64 (23.40.1) deaths.
- 417 (116.291.10) individuals kept in 48 EAZA zoos as of 31 December 2008. Plus more than 70 further Sitatunga being kept in 17 non-EAZA zoos.

### Notes

A paper titled "Identification of the founders of the present European population of Western Sitatunga (*Tragelaphus spekii gratus*) - Preliminary results" is available from the studbook keeper on request (peter20er@aol.com). This paper provides a very good overview of the founding bloodlines as long as the historical studbook is not published.

According to the preliminary results of this extensive research, the present European population of Western sitatunga can be traced back to a minimum of 25 imported founders (24 from Western Central Africa, one from the USA). This represents the most pessimistic view, whereas it is very likely that about five to ten more founders have contributed their genes, at Antwerpen, Paris-Zoo and Barcelona, but unfortunately - for the time being - this can not be proven.



**Greater kudu**  
**ESB Annual Report 2007 - 2008**



**1. Programme information**

Greater kudu

*Tragelaphus strepsiceros*

**ESB established in 1995.**

**Goal(s)**

Percentage of gene diversity 90% saved in 100 years.

**2. Programme personnel**

**European Studbook Keeper**

Jiri Hruby (Dvur-kralove)

**3. Publications**

**Studbook**

Recent edition: 2005

Next edition: 2010

**Husbandry guidelines**

Not yet published.

#### 4. Status

##### Status and developments over the year 2007 - 2008

Greater kudu  
*Tragelaphus strepsiceros*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AALBORG	1.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		ALMATY	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		ARNHEM	1.2.0	1.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		BARCELONA-ZOO	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0	0.0.0
		BEKESBOURNE	2.3.0	0.2.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		BERLIN-ZOO	2.4.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		BOJNICE	1.6.0	0.2.0 (0.0.0)	0.0.0	0.3.0	0.0.0	0.0.0	0.0.0	1.5.0
		BOSSIERE-DORE	2.3.0	2.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.3.0
		COLCHESTER	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
		DEIGNE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		DUBAI-WC	3.1.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	2.0.0
		DUISBURG	2.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	2.1.0
		DVUR-KRALOVE	3.13.0	4.3.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	1.1.0	6.14.0
*		ESTEPONA	0.0.0	0.0.0 (0.0.0)	2.1.0	0.0.0	0.0.0	0.0.0	1.0.0	1.1.0
		GELSENKIRCHEN	4.4.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	4.5.0
		HAMBURG	1.2.0	1.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.2.0
		HEIDELBERG	2.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
*		HILVARENBEEK	0.0.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
	*	HOYERSWERDA	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		KATOWICE	3.7.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0	2.6.0
		KERKRADE	2.3.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.4.0
		KREFELD	2.1.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
		KRONBERG	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		LES-MATHES	3.7.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0	2.5.0
		LISBOA-ZOO	1.3.0	2.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	1.2.0
		LYMPNE	4.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	2.0.0	3.0.0
		MADRID-ZOO	2.0.0	0.0.0 (0.0.0)	0.1.0	1.1.0	0.0.0	0.0.0	1.0.0	0.0.0
		MARWELL	1.11.0	0.0.0 (0.0.0)	0.0.0	0.4.0	0.0.0	0.0.0	0.1.0	1.6.0
		MUNCHEN	2.2.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0
		PARIS-ZOO	2.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.1.0
*		PLZEN	0.0.0	0.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0
		ROTTERDAM	1.3.0	1.0.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		SIGEAN	4.11.0	3.2.0 (2.2.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	4.11.0
		TALLINN	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		THOIRY	6.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0	3.0.0
*	*	VALENCIA-PARC	0.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		WHIPNADE	0.6.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.5.0
		Total (37)	63.103.0	19.15.0 (6.2.0)	4.9.0	4.9.0	0.0.0	0.0.0	19.16.0	57.100.0
*		Non-EAZA Institutions (3)	1.1.0	1.0.0 (1.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	1.0.0	0.1.0

#### Summary

The greater kudu population is quite stable. Barcelona, Madrid and Monde Sauvage left the programme during the reporting years whilst Estepona, Hilvarenbeek, Plzen and Valencia joined as new participants. The number of births and deaths are very similar and therefore the population remained stable. Genetic analyses have not been finished yet. The main problem that the programme faces is the poor percentage of the pedigree that is known.



# Blue duiker

## EEP Annual Report 2007 - 2008



### 1. Programme information

Blue duiker

*Cephalophus monticola*

**EEP established in 2005.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Wineke Schoo (Arnhem)

#### Species Committee members

Sander Hofman (Antwerpen)

Jesus Recuero (Fuengirola)

Martin Straube (Krefeld)

#### Behavioural advisor

Luc Lorca (Asson\_NE)

#### Conservation advisor

Luc Lorca (Asson\_NE)

### 3. Activities

#### Species Committee

Last election:

Last meeting:

#### Conservation activities

Not specified.

#### Research activities

Not specified.

### 4. Publications

#### Studbook

Recent edition: 2008

Next edition: 2009

#### Husbandry guidelines

Not yet published.

### 5. Status

#### Status and developments over the year 2007 - 2008

Blue duiker  
*Cephalophus monticola*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ANTWERPEN	0.1.0	0.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.1.0	0.3.0
		ARNHEM	0.3.0	2.0.0 (0.0.0)	1.2.0	0.3.0	0.0.0	0.0.0	1.0.0	2.2.0
*		ASSON_NE	8.11.0	1.4.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	6.8.0	2.6.0
		FUENGIROLA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		KREFELD	2.2.0	1.2.0 (0.1.0)	0.0.0	0.1.0	0.0.0	0.0.0	1.0.0	2.2.0
		RANDERS	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.0.0
		Total (6)	11.19.0	4.6.0 (0.1.0)	1.5.0	1.5.0	0.0.0	0.0.0	8.10.0	7.14.0

### Summary

In 2007 and 2008 a total of ten (4.6) offspring were born. Since initiation of the studbook for blue duikers, the population remained more or less stable at some 35 animals until 2004. Since 2005 the population was more or less stable at around 30 animals. In 2008 this number has dropped to 21 animals which is an alarming decrease (!). As with a lot of studbooks with only a small number of animals, breeding is depending on only a small number of participants. When deaths exceed births by far, the decrease in animals can go very fast.

#### Programme difficulties:

From the beginning of the blue duiker studbook it was accepted that this studbook was dealing with an animal species that was not threatened but was nevertheless interesting because of its educational value, small population size in captivity and model-value for future breeding of threatened species of duiker as e.g. Ader's Duiker (*Cephalophus adersi*). Therefore it was agreed in the 2001 EAZA Antelope TAG meeting to try to keep the schultzei-subpopulation pure as long as possible, but to try to mix surplus schultzei animals into the hybrid population to increase the number of founders of this subpopulation. There are only fertile females in the hybrid population, no males. Unfortunately, there has not been any success in mixing hybrid females with pure schultzei males. The reasons for this are unknown. Some contacts have been made with the Wageningen University (NL) to do some research regarding subspecies. Hopefully, we will be able to determine the reason regarding unsuccessful breeding with hybrids in combination with pure schultzei animals.

Due to import restrictions (because of the occurrence of blue-tongue) it has not been possible to import *Cephalophus monticola bicolor* specimens from the United States. An import of a bicolor male from Singapore was not carried out. It is possible that *Cephalophus monticola maxwelli* is a separate species. Because of the fact that until now hybrids cannot be mixed with schultzei the question is whether it is a good idea to introduce other subspecies in the population. Because of this it is recommended to introduce only animals from subspecies schultzei. Cameroon houses pure schultzei. The EEP tries to establish contacts to see what the import possibilities could be.

#### Programme recommendations:

To maintain a population of blue duiker in Europe it will be clear that a close cooperation between the institutions keeping blue duikers is necessary. A large part of the population (40%) is kept by Asson. We still need to try to establish successful breeding groups in different institutions to spread the risk of rapid loss of animals, for example in case of a disease.

### Notes

As ASSON was not listed I was not able to add Luc Lorca as a Species Committee member or create a new member. All participating EAZA institutions are represented in the Species Committee.

#### Programme difficulties:

From the beginning of the blue duiker studbook it was accepted that this studbook was dealing with an animal species that was not threatened but was nevertheless interesting because of its educational value, small population size in captivity and model-value for future breeding of threatened species of duiker as e.g. Ader's Duiker (*Cephalophus adersi*). Therefore it was agreed in the 2001 EAZA Antelope TAG meeting to try to keep the schultzei-subpopulation pure as long as possible, but to try to mix surplus schultzei animals into the hybrid population to increase the number of founders of this subpopulation. There are only fertile females in the hybrid population, no males. Unfortunately, there has not been any success in mixing hybrid females with pure schultzei males. The reasons for this are unknown. Some contacts have been made with Wageningen University to do some research regarding subspecies. Hopefully, we will be able to determine the reason regarding unsuccessful breeding with hybrids in combination with pure schultzei animals.

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#### Programme recommendations:

To maintain a population of blue duiker in Europe it will be clear that a close cooperation between the institutions keeping blue duikers is necessary. A large part of the population (40%) is kept by Asson. We still need to try to establish successful breeding groups in different institutions to spread the risk in case of a disease for example.



# Addax

## EEP Annual Report 2007 - 2008



### 1. Programme information

Addax

*Addax nasomaculatus*

**EEP established in 1992.**

#### Goal(s)

Percentage of gene diversity 77% saved in 100 years.

Target population size A= 350 and B= 250

#### Additional comments

The current gene diversity in the EEP population is 0,8359. The potential gene diversity is 0,9256. Without importing new founders maintaining 90% gene diversity in 100 years is not possible. To attain a goal of 77% gene diversity in 100 years the target population size has to be 350 addax. With a population size of 231 addax only 74% gene diversity can be saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Heiner Engel (Hannover)

#### Species Committee members

Ludek Culik (Dvur-kralove)

Dag Enke (Nurnberg)

Jaroslav Simek (Praha)

Angela Glatston (Rotterdam)

Eric Bairrao Ruivo (St-aignan)

Jake Veasey (Woburn)

### 3. Activities

#### Species Committee

Last election: 2007

Last meeting: 1 September 2004 [Click on arrow to view list](#)

#### Conservation activities

Ongoing Reintroduction in Tunisia and Morocco.

Conservation activities for the remaining population in Niger. ([www.saharaconservation.org](http://www.saharaconservation.org))

#### Research activities

Age determination using photographs.

### 4. Publications

#### Studbook

Recent edition: 2006

Next edition: 2011

#### Husbandry guidelines

Published in 1999.

## 5. Status

### Status and developments over the year 2007 - 2008

Addax

*Addax nasomaculatus*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		BERLIN-TIERPARK	1.6.0	2.4.0 (0.1.0)	1.0.0	0.0.0	0.0.0	3.3.0	0.0.0	1.6.0
		BEWDLEY	4.5.0	5.2.0 (1.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	7.5.0
		BRATISLAVA	2.5.0	2.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	4.4.0
		BRNO	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		COTTBUS_NE	2.1.0	2.0.0 (1.0.0)	0.0.0	2.1.0	0.0.0	1.0.0	0.0.0	0.0.0
		DVUR-KRALOVE	8.9.0	5.7.0 (1.1.0)	1.1.0	0.0.0	0.0.0	7.0.0	1.5.0	5.11.0
		EBERSWALDE	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	0.0.0
		EDINBURGH	2.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.3.0
		HANNOVER	4.6.0	2.2.0 (0.0.0)	0.0.0	4.1.0	0.0.0	0.1.0	0.0.0	2.6.0
		KATOWICE	3.5.0	0.0.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	1.0.0	2.5.0
		KESSINGLAND	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		KOLMARDEN	3.11.0	5.8.1 (1.3.1)	0.0.0	0.0.0	0.0.0	1.1.0	2.5.0	4.10.0
		KRAKOW	3.2.0	1.1.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	1.0.0	3.4.0
		LISBOA-ZOO	6.11.0	0.0.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.3.0	2.1.0	4.7.0
*		MARLOW	0.0.0	0.0.0 (0.0.0)	2.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
		MARWELL	2.8.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.8.0
		MONTPELLIER	6.8.0	2.3.1 (0.0.0)	0.2.0	0.2.0	0.0.0	0.0.0	1.0.0	7.11.1
		MULHOUSE	3.2.0	1.1.0 (0.1.0)	0.2.0	0.2.0	0.0.0	0.0.0	1.0.0	3.2.0
		NURNBERG	3.3.0	2.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	4.0.0	2.5.0
		NYIREGYHAZA	2.4.0	1.1.0 (1.0.0)	0.0.0	0.0.0	0.0.0	2.0.0	0.2.0	0.3.0
		OLOMOUC	1.4.0	2.6.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0	4.9.0
		OPOLE	2.3.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.3.0
		PARIS-ZOO	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.1.0
		PEAUGRES	6.1.0	0.2.0 (0.0.0)	0.1.0	1.0.0	0.0.0	0.0.0	1.0.0	4.4.0
		PRAHA	6.7.0	1.0.0 (0.0.0)	0.0.0	1.1.0	0.0.0	2.2.0	3.0.0	1.4.0
		RAMAT-GAN	2.12.0	4.2.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	4.13.0
		ROTTERDAM	1.3.0	1.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0	2.4.0
		STUTTGART	4.3.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.1.0	1.1.0	2.1.0
		USTI-NAD-LABEM	3.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	1.0.0	2.0.0
		WOBURN	3.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.4.0
		ZAGREB	1.3.0	1.2.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		ZLIN	3.5.0	3.4.0 (1.2.0)	0.0.0	0.0.0	0.0.0	1.1.0	0.2.0	4.4.0
		Total (32)	91.138.0	42.49.2 (8.9.1)	11.8.0	11.8.0	0.0.0	17.12.0	26.23.0	82.143.1

#### Summary

- The Addax population in European zoos is more or less stable.
- The import of 4 males from the USA in 2007 has positive effects on the genetic status of the European population.



# Roan antelope

## EEP Annual Report 2007 - 2008



### 1. Programme information

Roan antelope

*Hippotragus equinus*

**EEP established in 2000.**

#### Goal(s)

Percentage of gene diversity 80% saved in 100 years.

Target population size A= 250 and B= 150

#### Additional comments

The current gene diversity in the EEP population is 0,7928. To attain a goal of 80% gene diversity the population needs 5 new founders. Without importing new founders the gene diversity of the current population will be 66% at the end of 100 years.

### 2. Programme personnel

#### Species Coordinator

Klaus Brunsing (Hannover)

#### Species Committee members

Ilona Schappert (Dortmund)

Jiri Hruby (Dvur-kralove)

Lubomir Melichar (Liberec)

John Pullen (Marwell)

### 3. Activities

#### Species Committee

Last election: 2007

Last meeting:

#### Conservation activities

Not specified.

#### Research activities

Not specified.

### 4. Publications

#### Studbook

Recent edition: 2005

Next edition: 2010

#### Husbandry guidelines

Published in 2005.

## 5. Status

### Status and developments over the year 2007 - 2008

Roan antelope  
*Hippotragus equinus*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ARNHEM	2.5.0	1.2.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	1.5.0
		BUSSOLENGO	0.1.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		DORTMUND	1.1.0	2.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0
		DVUR-KRALOVE	8.15.0	9.5.0 (4.0.0)	0.0.0	0.0.0	0.0.0	4.3.0	1.3.0	8.14.0
		HANNOVER	3.3.0	3.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	2.0.0	0.0.0	4.3.0
*		HODONIN_NE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		LIBEREC	1.3.0	3.0.0 (0.0.0)	1.0.0	1.1.0	0.0.0	0.0.0	0.0.0	4.2.0
		LISBOA-ZOO	3.6.0	2.2.1 (1.1.1)	1.0.0	2.0.0	0.0.0	0.0.0	1.1.0	2.6.0
*		LYMPNE	6.8.0	4.2.3 (1.0.2)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	7.9.1
		MARWELL	1.9.0	6.7.0 (2.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0	5.12.0
		ROSTOCK	1.4.0	0.1.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	0.3.0
		SIGEAN	4.7.0	4.1.0 (1.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	4.0.0	3.7.0
		WHIPNADE	0.4.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		WIEN-ZOO	1.3.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.1.0	1.1.0
		Total (14)	32.69.0	35.20.4 (9.5.3)	3.2.0	3.2.0	0.0.0	6.3.0	12.12.0	40.69.1

### Summary

The roan population in European zoos is more or less stable. The main problem of the management of this population is the high number of unknown parentage in the studbook, the high inbreeding coefficient and the low genetic diversity. To maintain a healthy zoo population in the future, new founders from other regions are needed.



# Sable antelope

## ESB Annual Report 2007 - 2008



### 1. Programme information

Sable antelope

*Hippotragus niger niger*

#### ESB established in 2002.

#### Goal(s)

Percentage of gene diversity 90% saved in 10 years.

Target population size A= 0 and B= 170

#### Additional comments

Long term demographic and genetic population goals have not been set. It seem feasible to maintain 90% of gene diversity in the coming 10 years with a population of 170 animals.

### 2. Programme personnel

#### European Studbook Keeper

Richard Osterballe (Givskud)

### 3. Publications

#### Studbook

Recent edition: 2007

Next edition: 2010

#### Husbandry guidelines

Not yet published.

#### 4. Status

##### Status and developments over the year 2007 - 2008

Sable antelope  
*Hippotragus niger niger*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AUGSBURG	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		BANDHOLM	3.9.0	3.0.0 (0.0.0)	1.0.0	1.0.0	0.0.0	0.0.0	5.2.0	1.7.0
		BASEL	2.4.0	2.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	2.4.0
		BERLIN-ZOO	2.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.4.0
*	*	CABARCENO	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		DEIGNE	3.0.0	0.0.0 (0.0.0)	2.2.0	1.0.0	0.0.0	0.0.0	0.0.0	4.2.0
	*	DVUR-KRALOVE	7.22.0	0.0.0 (0.0.0)	1.0.0	0.2.0	0.0.0	0.0.0	0.0.0	8.20.0
		FRANKFURT	4.3.0	0.0.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	1.0.0	2.2.0
		GELSENKIRCHEN	2.3.0	1.0.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	0.0.0	2.2.0
		GIVSKUD	5.6.0	3.3.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0	5.9.0
		HILVARENBEEK	1.5.0	1.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0	2.6.0
	*	HOYERSWERDA	3.5.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	3.5.0
		KOBENHAVN-ZOO	1.1.0	0.1.0 (0.0.0)	2.2.0	0.0.0	0.0.0	0.0.0	2.0.0	1.4.0
		KOLMARDEN	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.0.0
		LISBOA-ZOO	2.4.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	3.3.0
		MARWELL	3.11.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	3.11.0
		MONTPELLIER	4.5.0	3.0.0 (0.0.0)	0.0.0	2.2.0	0.0.0	0.0.0	0.0.0	5.3.0
		MOSKVA	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
	*	OBTERRE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	*	PARIS-ZOO	1.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0
	*	PRAHA	4.1.0	1.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	5.3.0
		RAMAT-GAN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	*	SIGEAN	4.7.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.7.0
		ST-AIGNAN	2.5.0	0.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.5.0
		THOIRY	2.2.0	1.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	1.2.0
		WARSAWA	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.0.0
		Total (26)	67.107.0	17.12.0 (0.0.0)	7.6.0	7.6.0	0.0.0	0.0.0	18.13.0	66.106.0

#### Summary

As of 31-12-2008 the studbook contains 66.106 animals most of which are in EAZA member institutions. The population is based on 16 founders and currently 87% gene diversity is retained. With the current management it is possible to retain another 90% of the current GD within the next 10 generations. However, the sable antelope population is one of the programmes that suffers from a rather low proportion of known ancestry (45%).

Preliminary information suggests inbreeding problems with blindness and spinal cord deformities. However institutional willingness to supply further information has been very slow. Mean inbreeding at the moment is 12,5%.

Largest problem is the management of this species in heavy male biased breeding groups. This creates a major male surplus problem and resulting loss of gene diversity. The behaviour of the species makes bachelor groups a difficult and un-attractive recommendation.

Holders are provided with an important male list every second year. In general holders apply to EEP level breeding recommendations. General institutional recommendations will not be performed until the 2010 update.



# Scimitar-horned oryx

## EEP Annual Report 2007 - 2008



### 1. Programme information

Scimitar-horned oryx

*Oryx dammah*

**EEP established in 1989.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Tania Gilbert (Marwell)

#### Species Committee members

Marjo Hoedemaker (Amersfoort)

Jamie Craig (Burford)

Bob Barathy (Chard)

Mike Jordan (Chester)

Jiri Hruby (Dvur-kralove)

Gerd Nötzold (Leipzig)

Eric Bairrao Ruivo (Lisboa-zoo)

Marleen Huyghe (Mechelen)

Jaroslav Simek (Praha)

Jake Veasey (Woburn)

Jens Lilleor (Aalborg)

#### Veterinary advisor

Edmund Flach (Whipsnade)

### 3. Activities

#### Species Committee

Last election: 2008

Last meeting: 19 September 2005 Madrid-zoo

#### Conservation activities

The scimitar-horned oryx is listed as extinct in the wild by the IUCN (IUCN, 2004) but the species is well represented in zoos, safari parks, ranches and private holdings with approximately 5-6,000 oryx in captive institutions around the world. A number of reintroduction projects have taken place in Tunisia, Morocco and Senegal, with the aim of re-establishing the species within its former range. The most recent project took place in December 2007 when seven North American (SSP) and two European (EEP) oryx were released into Dghoumes National Park, Tunisia. These nine oryx joined a group of eight that had been transferred from Bou Hedma National Park in Tunisia earlier in the year. The oryx have now established themselves within Dghoumes National Park and are producing surviving offspring. The population is growing steadily due to a low mortality rate and high reproductive rate and the Park now has ~35 oryx spanning three generations.

#### Research activities

There are a number of ongoing research initiatives for the species including studies on parasitology, demography, genetics, morphology, population dynamics and reproduction. Recent published papers include the following:

Berg, N., Lavi, R., Steinberger, Y., Vikinski, Y. & Shore, L.S. (2008): Hormonal patterns associated with social rank and season in male oryxes *Oryx dammah* and elands *Taurotragus oryx*. *Acta Zoologica Sinica* 54 (1): 44-51

Harwood, D., Griffiths, W.H., Bradshaw, J.W. & Gilbert, T. (2009): Uterine endometrial carcinoma associated with dystocia in a captive scimitar-horned oryx (*Oryx dammah*). *Veterinary Record* 164: 661 – 662.

Iyengar, A., Gilbert, T., Woodfine, T., Knowles, J.M., Diniz, F.M., Breneman, R.A., Louis Jr. E.E. & Maclean, N. (2007): Remnants of ancient genetic diversity preserved within captive groups of scimitar-horned oryx (*Oryx dammah*). *Molecular Ecology* 16 (12): 2436 - 2449.

Russello, M.A. & Amato, G. (2007): On the horns of a dilemma: molecular approaches to refine ex-situ conservation in crisis. *Molecular Ecology* 16 (12): 2405 – 2406.



**Scimitar-horned oryx**  
**EEP Annual Report 2007 - 2008**



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**4. Publications**

**Studbook**

Recent edition: 2008

Next edition: 2010

**Husbandry guidelines**

Published in 2004.

## 5. Status

### Status and developments over the year 2007 - 2008

Scimitar-horned oryx  
*Oryx dammah*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AALBORG	6.15.0	8.13.0 (0.4.0)	1.0.0	0.0.0	0.0.0	0.0.0	10.8.0	5.16.0
		AMERSFOORT	0.4.0	1.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0	1.5.0
		AMSTERDAM	3.7.0	3.3.0 (1.0.0)	0.1.0	2.0.0	0.0.0	0.0.0	0.0.0	3.11.0
		ATHINAI	4.7.0	9.2.0 (2.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.3.0	11.4.0
		BARCELONA-ZOO	2.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.3.0
		BERGAMO_NE	6.5.0	4.1.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.3.0	7.3.0
		BERLIN-TIERPARK	2.7.0	3.2.0 (1.0.0)	0.0.0	1.0.0	0.0.0	3.8.0	0.1.0	0.0.0
		BERLIN-ZOO	3.8.0	3.2.0 (0.0.0)	0.2.0	1.4.0	0.0.0	0.0.0	1.3.0	4.5.0
		BOSSIERE-DORE	0.4.0	0.1.0 (0.0.0)	1.3.0	0.4.0	0.0.0	0.0.0	0.0.0	1.4.0
		BRATISLAVA	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	1.3.0	0.0.0	0.0.0
		BURFORD	3.7.0	5.3.0 (3.1.0)	0.3.0	3.2.0	0.0.0	0.0.0	1.3.0	1.7.0
		BUSSOLENGO	2.0.0	1.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	1.0.0	0.0.0	2.2.0
		CHARD	1.7.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	1.4.0	1.5.0
		CHESTER	0.8.0	6.0.0 (1.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0	6.7.0
		DEIGNE	6.0.0	0.0.0 (0.0.0)	0.4.0	1.0.0	0.0.0	0.0.0	3.0.0	2.4.0
		DOMPIERRE	3.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	1.0.0	0.0.0	5.0.0
		DUBLIN	1.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.4.0
		DVUR-KRALOVE	1.9.0	4.1.0 (1.1.0)	1.0.0	0.0.0	0.0.0	1.0.0	2.1.0	2.8.0
*		ESTEPONA	10.8.0	7.6.0 (3.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	5.3.0	9.10.0
		FOTA	3.11.0	2.4.0 (1.1.0)	1.0.0	1.2.0	0.0.0	1.0.0	2.1.0	1.11.0
		GDANSK	2.3.0	2.1.0 (0.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0	1.1.0
		JERUSALEM	2.6.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.6.0
*		JURQUES	2.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.2.0
		KARLSRUHE	1.5.0	3.4.0 (0.1.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.1.0	4.5.0
		KATOWICE	4.3.0	1.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	3.0.0	1.0.0	0.3.0
		KREFELD	0.3.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.4.0
		LEIPZIG	2.8.0	7.2.1 (2.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0	4.8.0
		LES-MATHES	1.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.4.0
		LISBOA-ZOO	1.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0	1.2.0
		LISIEUX	2.9.0	1.2.0 (0.0.0)	1.0.0	2.0.0	0.0.0	0.0.0	0.2.0	2.9.0
		LODZ	1.2.0	1.1.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.2.0
		MADRID-ZOO	6.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	4.0.0
		MARWELL	3.15.0	8.9.0 (5.3.0)	0.2.0	1.3.0	0.0.0	0.0.0	2.3.0	3.17.0
		MECHELEN	1.5.0	2.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	3.5.0
		MONTPELLIER	1.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		MUZILLAC	0.5.0	0.1.0 (0.0.0)	0.4.0	0.3.0	0.0.0	0.0.0	0.2.0	0.5.0
		OBTERRE	3.9.0	1.0.1 (1.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	2.1.0	3.8.1
		OPOLE	2.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.4.0
		PARIS-ZOO	0.5.0	0.0.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.1.0	0.2.0
		PELLISSANE	1.6.0	4.1.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	2.6.0
		PLAISANCE-TOUCH	2.4.0	3.1.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	4.5.0
		PLOCK	2.6.0	3.2.1 (0.1.1)	0.0.0	1.1.0	0.0.0	0.0.0	1.0.0	3.6.0
		PLZEN	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0	1.0.0
		PORT-ST-PERE_NE	7.11.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	3.0.0	1.0.0	3.11.0
		PRAHA	4.8.0	4.1.0 (1.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	5.7.0
		PRESCOT	7.4.0	1.4.0 (0.2.0)	1.0.0	0.0.0	0.0.0	0.0.0	4.1.0	5.5.0
		RAMAT-GAN	20.40.0	11.4.0 (1.0.0)	0.0.0	0.0.0	0.0.0	13.5.0	2.4.0	15.35.0
		VESZPREM	1.2.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	1.1.0	0.0.0	1.1.0
		WARMINSTER	0.5.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		WARSAWA	2.3.0	1.1.0 (0.0.0)	0.0.0	1.1.0	0.0.0	2.0.0	0.0.0	0.3.0



## Scimitar-horned oryx EEP Annual Report 2007 - 2008



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WHIPNADE	1.6.0	1.1.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.3.0	1.4.0
WOBURN	4.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	1.0.0	0.0.0	2.0.0
WROCLAW	4.5.0	2.2.0 (1.0.0)	1.2.0	0.0.0	0.0.0	3.3.0	1.1.0	2.5.0
ZAGREB	2.7.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	2.0.0	0.0.0	0.7.0
Total (54)	151.325.0	112.78.3 (27.17.2)	17.26.0	17.26.0	0.0.0	37.20.0	58.65.0	141.301.1

### Summary

The population is demographically stable with no major areas of concern at the present time. Juvenile mortality has been artificially elevated due to euthanasia of surplus stock, in particular surplus males. Current retention of genetic diversity is ~91%, however this is based on the analytical studbook as there is a large amount of missing pedigree data in the true studbook. Maintenance of genetic diversity is a priority along with the avoidance of inbreeding as these two genetic measures are likely to have a negative impact on the long-term persistence and health of the captive population, and on the success of reintroductions. The current bluetongue restrictions in Europe are impacting on the management of the captive population, in particular the transfer of males between institutions. If this continues into the foreseeable future, then it may result in increased levels of inbreeding and a reduction in gene diversity.



# Arabian oryx

## EEP Annual Report 2007 - 2008



### 1. Programme information

Arabian oryx

*Oryx leucon*

**EEP established in 1991.**

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### Species Coordinator

Jackie Ossowski-Mackie (London)

#### Species Committee members

Jean-Christophe Bertho (Deigne)

Graham Catlow (Edinburgh)

Angela Glatston (Rotterdam)

Colomba De La Panouse (Thoiry)

Robert Zingg (Zurich)

#### Nutritional advisor

Kristin Leus (Antwerpen)

### 3. Activities

#### Species Committee

Last election: 2001

Last meeting: 19 September 2001 Praha

#### Conservation activities

Not specified.

#### Research activities

Not specified.

### 4. Publications

#### Studbook

Recent edition: 2002

Next edition: 2010

#### Husbandry guidelines

Not yet published.

## 5. Status

### Status and developments over the year 2007 - 2008

Arabian oryx  
*Oryx leucoryx*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALWABRA	3.11.0	5.9.0 (1.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.6.0	7.14.0
		ASKANIYANOVA_NE	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
		BERLIN-TIERPARK	1.6.0	4.5.0 (1.0.0)	0.0.0	1.3.0	0.0.0	0.0.0	2.0.0	1.8.0
		CHAMPREPUS	0.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0
*		DEIGNE	0.0.0	0.0.0 (0.0.0)	0.3.0	0.0.0	0.0.0	0.0.0	0.3.0	0.0.0
		DUBAI-WC	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DVUR-KRALOVE	3.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	2.0.0	0.1.0	1.4.0
		JEREZ-FRONTERA	1.1.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		JERUSALEM	4.8.0	3.6.0 (0.1.0)	0.0.0	3.0.0	0.0.0	0.2.0	1.2.0	3.9.0
		KESSINGLAND	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.1.0	0.1.0	0.0.0
*		KRENLBACH	0.0.0	0.0.0 (0.0.0)	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
		LISBOA-ZOO	5.6.0	0.2.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	3.1.0	3.7.0
		MARWELL	0.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.1.0	0.0.0	0.3.0
		MECHELEN	1.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.4.0
		MONCHIQUE	1.1.0	0.0.0 (0.0.0)	0.0.0	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0
		MONTPELLIER	1.5.0	2.4.0 (0.0.0)	0.0.0	0.3.0	0.0.0	0.0.0	1.1.0	2.5.0
		PEAUGRES	0.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.5.0
*		RAMAT-GAN	0.0.0	0.0.0 (0.0.0)	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		ROTTERDAM	1.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		SHARJAH	14.23.0	16.17.0 (2.1.0)	0.0.0	0.0.0	0.0.0	2.2.0	9.7.0	17.30.0
		SOFIA_NE	1.2.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.3.0
		THOIRY	4.6.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	4.5.0
		WHIPSNADE	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		ZLIN	0.3.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.2.0
		ZURICH	2.3.0	2.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.3.0
		Total (25)	44.105.0	32.43.0 (4.2.0)	6.7.0	6.7.0	0.0.0	4.6.0	16.26.0	52.114.0

#### Summary

This EEP will be handed over to a new coordinator, Ian Goodwin, at Marwell Wildlife in 2009.

Many gaps remain in the data in this studbook and this needs further investigation.

#### Notes

EEP meeting for this species is part of the mid year giraffe and antelope TAG meeting.

This report was provided by the new EEP co-ordinator Ian Goodwin.



# Lechwe

## ESB Annual Report 2007 - 2008



### 1. Programme information

Lechwe	<i>Kobus leche</i>
Kafue lechwe	<i>Kobus leche kafuensis</i>
Red lechwe	<i>Kobus leche leche</i>
Black lechwe	<i>Kobus leche smithemani</i>
Lechwe HYBRID	<i>Kobus leche HYBRID</i>

### ESB established in 2007.

#### Goal(s)

Percentage of gene diversity 90% saved in 100 years.

### 2. Programme personnel

#### European Studbook Keeper

John McLaughlin (Fota)

### 3. Publications

#### Studbook

Recent edition: Not yet published.

Next edition: 2010

#### Husbandry guidelines

Not yet published.

### 4. Status

#### Status and developments over the year 2007 - 2008

Kafue lechwe  
*Kobus leche kafuensis*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ATHINAI	2.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.1.0
		BEWDLEY	8.34.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	8.34.0
		BOJNICE	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
		CHARD	0.6.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.5.1
		CHESTER	0.8.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.8.0
		DEIGNE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		DOMPIERRE	2.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.1.0
		DVUR-KRALOVE	2.29.0	15.13.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	5.4.0	12.38.0
		FOTA	1.6.0	2.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	2.7.0
		KESSINGLAND	0.9.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.9.0
		LISBOA-ZOO	1.8.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0	1.6.0
		LJUBLJANA	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.0.0
		MALTON	5.8.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	3.8.0
		NEWQUAY	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	0.3.0
		PAIGNTON	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		PEAUGRES	6.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	2.0.0	0.0.0	2.0.0	6.0.0
		PLZEN	2.4.3	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.4.3
		PRAHA	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
		PRESCOT	3.15.10	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.15.10
		ST-AIGNAN	0.10.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.10.0
		THOIRY	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		USTI-NAD-LABEM	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		WOBURN	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		Total (23)	42.156.14	19.15.0 (0.0.0)	0.0.0	0.0.0	2.0.0	0.0.0	13.9.0	50.162.14
		Non-EAZA Institutions	9.41.0	1.3.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	9.44.0



## Lechwe

### ESB Annual Report 2007 - 2008



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#### Summary

The pedigree of lechwe kept in Europe is very incomplete thus making an accurate genetic analysis difficult which in turn makes setting programme goals and making breeding recommendations impossible.

#### Notes

It is believed that all the lechwe in EAZA are either Black or Kafue, this may still need to be proven. At present the only lechwe in the Lechwe ESB are those recorded as *Kobus leche kafuensis*.



**Nile lechwe**  
**EEP Annual Report 2007 - 2008**



**1. Programme information**

Nile lechwe

*Kobus megaceros*

**EEP established in 1996.**

**Goal(s)**

Percentage of gene diversity 90% saved in 100 years.

**2. Programme personnel**

**Species Coordinator**

Nick Lindsay (Whipsnade)

**Species Committee members**

Mark Challis (Belfast)

Andreas Ochs (Berlin-zoo)

Donata Grassi (Bussolengo)

Pavel Moucha (Dvur-kralove)

Terry Hornsey (Kessingland)

Ute Magiera (Osnabruck)

Yitzhak Yadid (Roma)

Marianne Bilbaut (Sigean)

**Veterinary advisor**

Edmund Flach (Whipsnade)

**3. Activities**

**Species Committee**

Last election: Over 5 years ago.

Last meeting: 22 September 2002 Barcelona-zoo

**Conservation activities**

The Wildlife Conservation Society (WCS) has had a field programme in Southern Sudan which has obtained information on Nile lechwe in the wild. Information on this project and wild lechwe is to be circulated to holding zoos.

**Research activities**

Not specified.

**4. Publications**

**Studbook**

Recent edition: 2008

Next edition: 2010

**Husbandry guidelines**

Not yet published.



## Nile lechwe EEP Annual Report 2007 - 2008



### 5. Status

#### Status and developments over the year 2007 - 2008

Nile lechwe  
*Kobus megaceros*

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		BELFAST	4.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0	2.0.0
		BERGAMO_NE	6.13.0	3.3.2 (0.0.0)	0.0.0	0.0.0	0.0.0	5.7.0	1.1.0	3.8.2
		BERLIN-ZOO	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	0.0.0
		BOSSIERE-DORE	2.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.4.0
*		BUDAPEST	0.0.0	0.0.0 (0.0.0)	1.5.0	0.0.0	0.0.0	0.0.0	0.0.0	1.5.0
		BUSSOLENGO	5.11.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	5.11.0
		CAMBRON-CASTEAU	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	0.0.0
		DVUR-KRALOVE	8.17.0	5.8.1 (2.0.1)	0.0.0	1.2.0	0.0.0	2.5.0	5.1.0	3.17.0
		ESTEPONA	5.8.0	1.3.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0	6.8.0
		KESSINGLAND	1.19.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.9.0	1.10.0
		LYON	1.4.0	4.1.0 (1.1.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.4.0
		MONTPELLIER	2.3.0	1.4.0 (0.0.0)	0.0.0	0.3.0	0.0.0	0.0.0	0.0.0	3.4.0
		OSNABRUCK	2.2.0	2.0.0 (2.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0	1.0.0
		PRAHA	4.1.0	2.1.0 (0.0.0)	1.2.0	0.0.0	0.0.0	0.0.0	2.1.0	5.3.0
		ROMA	13.22.1	1.2.2 (0.2.2)	0.0.0	1.2.0	0.0.0	0.0.0	0.0.0	13.20.1
*		SIGEAN	4.8.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1	4.8.0
		WHIPSNADE	9.20.1	11.10.8 (9.2.1)	0.0.0	0.0.0	0.0.0	0.0.0	5.3.2	6.25.6
		Total (17)	67.134.3	30.32.13 (14.5.4)	2.7.0	2.7.0	0.0.0	7.12.0	18.22.3	58.127.9

#### Summary

With one more new holding institution the EEP is doing well but there is still a no breeding recommendation for the programme.

Some specimens have now left the EEP going to non-EAZA zoos and outside the region. There is a need for holders to contact the EEP Coordinator before agreeing to these moves to ensure the programme does not lose specimens that may be important and to ensure these moves have some coordination in case of heavy demands for the species.

#### Notes

There is a need to produce husbandry guidelines, to circulate information on the status of the species in the wild and to hold a species committee election.