

European Studbook for Forest Reindeer, *Rangifer tarandus fennicus*, 2018



Leif Blomqvist

NORDENS
ARK





The mission of the European studbook programme is to establish a healthy *ex situ* population of forest reindeer in Europe by promoting the use of good management practices and to maintain a sustainable, cooperatively managed stock that can contribute to reintroductions and re-stockings in the wild.

Copyright 2019 by Nordens Ark Foundation. All rights reserved. No part of this publication may be reproduced in hard copy or other formats without advance written permission from Nordens Ark. Members of EAZA may copy this information for their own use. EAZA and Nordens Ark recommend that users of this information consult with the ESB keeper for any interpretation and for the most recent data.

Acknowledgements: The studbook keeper wants to thank **Laurie Bingaman Lackey** from the EAZA Population Management Advisory Group for her constructive comments on the manuscript and her critical evaluation of the English language. My thanks also go to **Milla Niemi** from Metsähallitus who has allowed me to use her photos from the off-site breeding facilities in two Finnish national parks.

Reference: **Blomqvist, L. (2019):** European Studbook for forest reindeer *Rangifer tarandus fennicus* 2018. Nordens Ark Foundation

Leif Blomqvist - ESB keeper
Nordens Ark, Hunnebostrand, Sweden
leif.blomqvist@nordensark.se

Front cover: © Erik Edvardsson, Nordens Ark





Contents:

2018 Update for Forest Reindeer ESB

1.	Introduction	4
2.	Reintroductions carried out in the 1980s	4
3.	<i>In situ</i> population status in the EU	4
4.	Reasons for decline	5
	4.1. Landscape changes	5
	4.2. Carnivore predation	5
	4.3. Traffic accidents	5
	4.4. Poaching	6
5.	Conservation activities in Finland: LIFE Project supports on-site breeding and new reintroductions/re-stockings ...	6
	5.1. New founders incorporated to improve gene pool	7
6.	The <i>ex situ</i> population	8
	6.1. Main events in 2018	8
	6.2. Demographic overhaul of the ESB population	9
	6.3. Fecundity	9
	6.4. Mortality	9
	6.5. Genetic summary of the 2018 population	10
7.	References	12
8.	Studbook	14
	8.1. Living population per location as of 1.1.2019	14
	8.2. Birth 2018	23
	8.3. Deaths 2018	25
	8.4. Transfers 2018	27
	8.5. Releases	28
	8.6. Historical listing	29
	8.7. Location glossary	58

2018 Update for Forest Reindeer ESB



Photo: Milla Niemi

Leif Blomqvist, ESB keeper
leif.blomqvist@nordensark.se

1. Introduction

Finland is the only EU country with a wild population of reindeer. In the past, Eurasian forest reindeer (*Rangifer tarandus fennicus*) were widespread in most parts of the country but due to extensive hunting the population crashed and the wild forest reindeer became extinct in the early 1900s. Fortunately wild populations survived in the western parts of the former Soviet Union and after World War II, the subspecies slowly started to re-colonize Finland with the first births observed in the 1950s (Heikura *et al.* 1985). During the following decades, forest reindeer numbers started to grow and by the early 1980s, roughly 500 animals were living in the border zones of eastern Finland. From being extinct for almost half a century, forest reindeer had through natural dispersal returned to the country.

2. Reintroductions carried out in the 1980s

Stochastic events make isolated populations more vulnerable to extinction than animals with a widespread distribution. Because of the limited Finnish distribution obvious risks existed that a potential epidemic could wipe out the entire population. To avoid another eradication, two males and eight females, six of which were pregnant, were caught in 1979-1980 and transferred to an on-site enclosure in the Suomenselkä area in central Finland where breeding was conducted for five years before the animals were released in Salamajärvi National Park in the early 1980s (Kojola 1982; Kojola 1993; Bisi & Härkönen 2007; Hulkko 2011; Blomqvist & Richardson 2012). A second backup population was later established in the Karstula-Ähtäri area in central Finland, where three males and fourteen females were released from the zoo in Ähtäri from 1988-1994 (Blomqvist 2008).

3. *In situ* population status in the EU

The Finnish subpopulations have been monitored regularly through aerial censuses. The eastern population in Kainuu expanded to 900 animals in the mid-1990s, while the reintroduced stock in Suomenselkä increased to 250 head. A peak was reached in the early 21st century when the total number of animals in the country was put close to 2.500 head (Blomqvist 2015). After 2003 the expansion, however, levelled off at around 1.500 individuals in Suomenselkä, while the eastern subpopulation has decreased by 10% per year and stagnated to the same size as in the early 1980s (Figure 1). The reintroduced population in Karstula-Ähtäri has never taken root, and the past two years' surveys reveal that it has stagnated at a level of not more than 20-30 animals. The current stronghold therefore lies in central Finland where the winter survey in 2018 estimated the population at 1.500 animals, 18% of which were calves, while corresponding numbers for the eastern subpopulation simultaneously revealed some 750 animals, with 11% calves. The population assessment for Finland was consequently estimated at around 2.250 animals in 2018 (Figure 1).

Although the decline in Kainuu appears to have levelled off, its meagre size makes it henceforth vulnerable to stochastic events including increased predation, diseases, traffic accidents and climate warming. The reintroduced subpopulation in the central part of the country has moved northwards over the last few years and is expected to increase in number (Paasivaara *et al.* 2018). Currently forest reindeer are classified as *Near Threatened* in the Finnish Red Data Book (2019) and listed in Annex II of the EU Habitat Directive where it is assessed as “unfavourable-inadequate” in Article 17.

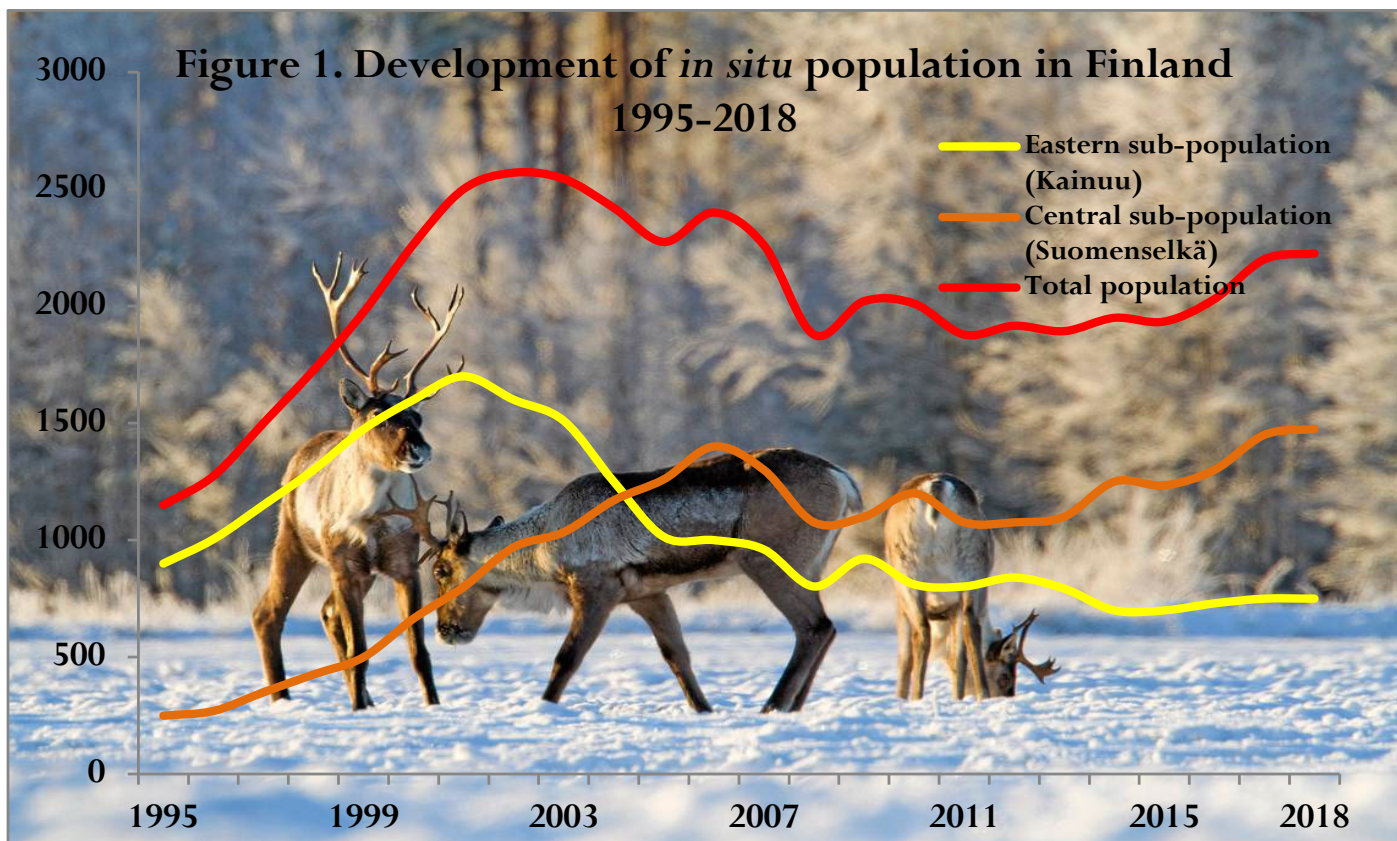


Figure 1. Development of in situ population in Finland 1995-2018

4. Reasons for decline

Forest reindeer have a low reproductive rate and unlike the other deer species in Finland, moose (*Alces alces*), white-tailed deer (*Odocoileus virginianus*) and roe deer (*Capreolus capreolus*), forest reindeer give birth to only a single calf at a time. If mortality starts to rise, growth can end abruptly and turn into a decline.

4.1. Landscape changes

Like the North American woodland caribou (*Rangifer t. caribou*), the Eurasian subspecies is sensitive to human-induced changes that have taken place in the boreal forest over recent decades. Marshes have been drained, forests cut down, power lines built, and road networks extended into large areas of previously untouched forests. Intensified forestry has also reduced the age structure of the forests and created excellent habitat for moose whilst forest reindeer seem to be one of many losers in the modified landscapes (Kojola et al. 2009) where diverse and untouched forests cover ever smaller fractions of the boreal forest belt.

4.2. Carnivore predation

Whilst logging and clear-cutting has created suitable pasturelands for moose, the increase in the number of large carnivores is considered a key reason for reindeer declines in eastern Finland. Brown bear (*Ursus arctos*) mainly prey on calves in spring and early summer, while lynx (*Lynx lynx*) concentrate on hinds and one-year old calves. Kojola has shown that juvenile mortality among forest reindeer is twice as high in areas with dense wolf (*Canis lupus*) populations as in areas where wolves are rare, and that there is clear correlation between extended large carnivores

density and reindeer decline in the Kuhmo area (Kojola et al. 2009; Karlsson 2009; Kojola 2011). Because of its lower reproductive potential, forest reindeer are more impacted by predation than are moose.

4.3. Traffic accidents

The risk of traffic accidents is high if spring and fall migration routes traverse busy roads (Figure 2). Car accidents seldom lead to human fatalities, but accidents are more frequent than in the past. As forest reindeer populations expand and yearly migration routes between feeding grounds become longer, animals will cross roads and railway lines more frequently than in the past.



Figure 2. The risk of traffic accidents is increasing in vicinity of busy roads.

4.4. Poaching

Individual cases of poaching have occasionally been reported from Finland, although they are rare. In western Russia, poaching is one of the most serious obstacles restricting the subspecies' recovery (Sirkka 2015). In early spring, large herds stay in the vicinity of lakes and often become targets of illegal hunting. In winter, forest reindeer prefer to gather on frozen lakes where they are easy targets for hunting from snowmobiles. Illegal hunting from Russia is also reported in summer when animals swim between the mainland and islands (Karelia ENPI CBC Programme project 2013-2014).

An evident lack of guards in Russia makes monitoring difficult. As roughly one-third of the animals in Eastern Finland regularly cross the border zone, illegal poaching in Russia negatively affects the Finnish population. Although only five to six illegal killings are reported annually in Russia, local residents claim that the actual number is significantly higher. A large number of local inhabitants seem to be ignorant of the subspecies' status, and so to promote its protection in Russian Karelia, the Russian-Finnish Wild Forest Reindeer Project has produced pamphlets and information sheets to be distributed among schoolchildren and local residents (<https://www.suomenpeura.fi/en/population-management/karelia-enpi-cbc-programme-project-2013-2014.html>).

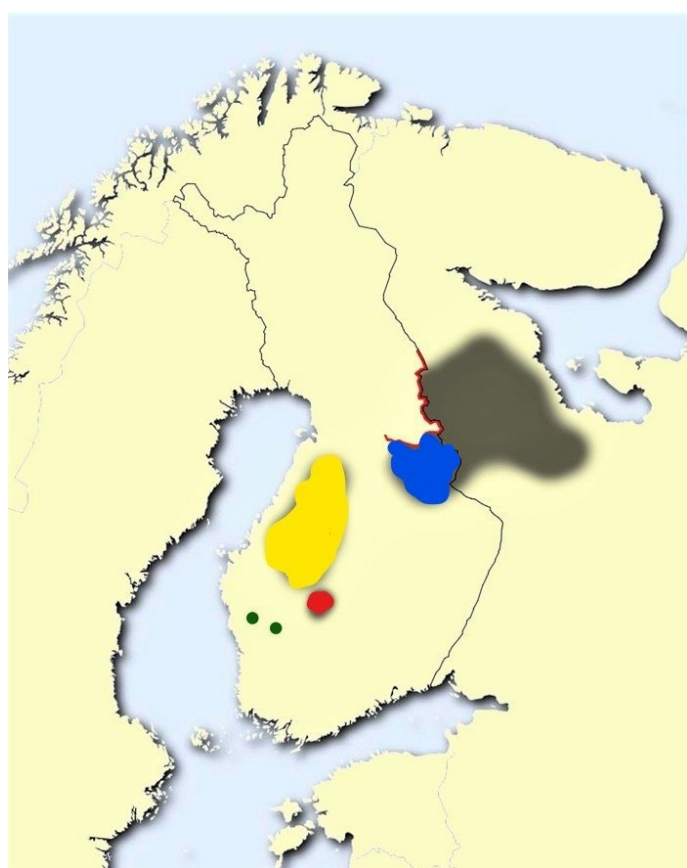


Figure 3. Current distribution and planned reintroduction sites of forest reindeer in Finland. Yellow: Suomenselkä, Blue: Kainuu, Red: Ähtäri-Karstula, Grey: Russia, Green dots: New reintroductions sites in Seitsemien and Lauhanvuori NPs.

5. Conservation activities in Finland: LIFE Project supports on-site breeding and new reintroductions/re-stockings

To interrupt the decreasing population trends in eastern Finland and to



expand the current distribution, new populations will be established through on-site breeding and reintroductions (Blomqvist & Mykrä 2017; Blomqvist 2018), actions that were already recommended in the Finnish management plan for wild forest reindeer (Ministry of Agriculture & Forestry 2007). Experiences from previous reintroductions in the 1980s will be used in the project. Two national parks in SW Finland, Seitsemien and Lauhanvuori, have been selected as new reintroduction sites (Figure 3). The two national parks, 45 and 53km² in size, located 60km apart, have been selected mainly because of their suitable biotopes with lichen heaths and marshes, but also because of their lower carnivore densities compared to eastern Finland. Two on-site breeding enclosures of 14 and 31 hectares have been built in the national parks (Figure 4). Breeding females have been donated from participating EAZA zoos: Ähtäri, Ranua, Helsinki and Nordens Ark (Blomqvist 2018). A six hectare large "transit" enclosure for collecting individuals that will be used for re-stocking the fragmented population in the Karstula-Ähtäri-area was also built in the Aittosuo Natural Reserve in 2018.

The reintroduction sites are located in two Natura2000 areas that were inhabited by forest reindeer two centuries ago. In the years to come, it is hoped that the reintroduced animals will merge and blend with the core population in central Finland, thus advancing the expansion of forest reindeer in the country. If the project proves successful, the new reintroduction sites might serve as future core areas for wild reindeer, facilitating the subspecies in reclaiming its historical range in the south-western parts of the country. As the scientific name refers to, *R.t. fennicus* has a strong symbolic value for Finland as part of the country's cultural heritage and it has been assumed that Finland was partly inhabited by people following this important game species northwards (Hulkko 2011). The reintroduction effects are expected to bring strong media coverage to both national parks and promote tourism in the areas (Hiedanpää & Pellikka 2013). The reintroduced subpopulation in Suomenselkä has proved to be a prominent tourist attraction, and the planned actions could have a positive effect on the attractiveness of the national parks in Seitsemien and Lauhanvuori. After breeding in the on-site enclosures, the wild-caught animals will be transferred to the captive stock to diversify the gene composition of the captive population.

The project is coordinated by Wildlife Service Finland, with nine collaborating partners (LIFE15 NAT/FI/000881). The budget for the LIFE project is estimated at €5.16 million, 60% of which will be provided by the EU, while the remainder will be financed by the Finnish state, the Finnish Hunters' Association, plus a number of collaborating



Figure 4. On-site breeding enclosure at Lauhanvuori NP. Photo: Milla Niemi, Metsähallitus

and supporting stakeholders, including EAZA. The reintroduction costs are estimated at €1 million. The majority of the funding is allocated towards habitat restoration, studies on habitat requirements, landscape utilization of the released animals and measures to reduce traffic mortality. To facilitate field censuses, more than 100 individuals will be equipped with satellite collars.

5.1. New founders incorporated to improve gene pool

Gene diversity (GD) is vital to all animals for their evolution. The primary goal of the breeding programme is to also maintain a demographically robust *ex situ* population that is genetically representative of its wild counterparts and to sustain these characteristics for the foreseeable future. Sufficient levels of GD must therefore be retained to allow the captive population to adapt to a variety of future environmental conditions (Blomqvist & Sliwa 2016). Forest reindeer are currently exhibited in 25 European zoo collections, three of which are non-EAZA members (Lauhanvuori National Park, Seitsemien National Park and Zapovednik Kerzhensky in Russia).

It is known that the more founders a population descends from, the better its prospects for future generations. Isolated populations lose part of their GD with each successive generation, and the loss of alleles has eroded the level of GD during the decades reindeer have been maintained in captivity. Prior to 2018, the captive stock descended from only eight founders, the last one of which was brought to Ähtäri Zoo in 2004. An effective way to expand the gene pool is to incorporate new founders at regular intervals (Lees & Wilcken 2013) and periodic supplementation of wild-caught animals has been a priority issue for the programme. To enrich GD, not only among the animals that will be released, but also among the animals kept in captivity, two males

and a pregnant female were captured in Kainuu in eastern Finland in 2017 and transferred to the breeding enclosures in Seitsemien and Lauhanvuori National Parks (Blomqvist 2018). The wild-caught individuals have been mixed with 10 captive-bred females (Figure 5) in the two enclosures where breeding will continue until 2022, with reintroductions starting in 2019 and ending in 2023.

The native zoos of Ähtäri, Helsinki and Ranua have agreed to provide the on-site facilities with fawns each year for as long as breeding continues. In 2018, five calves were born in the two facilities and at the end of the year, 21 individuals were kept in the on-site enclosure in the two national parks (Table 1).



Figure 5. Captive-bred females have been mixed with wild-caught individuals in the on-site breeding enclosures in the two national parks. Photo: Milla Niemi, Metsähallitus

After breeding in Lauhanvuori and Seitsemien in 2018-19, the wild-caught stags were transferred to the zoos in Ähtäri and Ranua where they hopefully will spread their genomes to the captive population. In 2019, the breeding males were replaced with two new potential founders caught in central Finland. In March 2019, an additional wild-caught hind and her female calf from the core population in Eastern Finland were also caught and transferred to the breeding herd in Lauhanvuori National Park.

Incorporation of new founders into the captive population enables an establishment of a Finnish zoo population that represents a reservoir of genetically distinct individuals, the offspring of which can be transferred to foreign zoos to reduce inbreeding in the European *ex situ* population. The captive population can subsequently function as a nucleus to produce and prepare individuals for further supplementations and reintroductions if new conservation strategies will become necessary for forest reindeer in Fennoscandia.

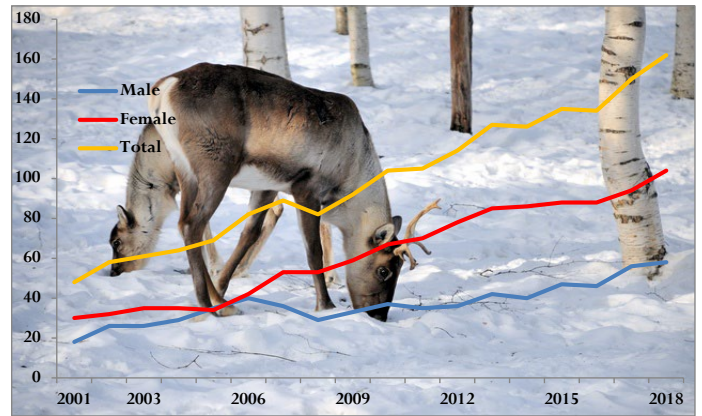


Figure 6. Census of *ex situ* population 2001-2018

6. The *ex situ* population

6.1. Main events in 2018

The total number of animals in the captive population increased by 12 individuals from 150 animals in 2017 to 162 in 2018 (Figure 6). The main events during the year are summarized in Table 1, showing that 49 calves (25.24)

Participant	Status			In	Out	Total Deaths	Status 1.1.2019
	1.1.2018	Born	DNS				
Ahtari/FIN	8.7	2.3	1.1	1.0 Helsinki	6.0 Wild*	2.1	3.9
Arnhem/NL	1.8	2.2	1.0	-	0.2 Bern 1.0 Kronberg	1.0	1.8
Berlin Zoo/D	1.5	-	-	1.0 Riga	1.0 Han sur Lesse	-	1.5
Bern/CH	1.1	0.1	-	0.2 Bern	-	-	1.4
Gothenburg/S	1.3	-	-	-	-	-	1.3
Han sur Lesse/B	-	-	-	2.0 Jarvso 2.0 Prague 1.0 Magdeburg 1.0 Berlin Zoo	-	-	6.0
Helsinki/FIN	2.5	1.2	-	-	0.2 Seitsemien 1.0 Ahtari	-	2.5
Hunnebostrand/S	2.3	1.1	0.1	1.0 Kronberg 0.1 Jarvso	1.0 Lycksele	1.2	2.3
Jarvso/S	3.4	0.3	0.1	-	2.0 Han sur Lesse 0.1 Hunnebostrand	0.1	1.5
Kerkrade/NL	1.8	1.3	1.1	-	-	1.2	1.9
Kerzhensk/RUS	7.2	1.1	-	-	-	-	8.3
Kingussie/UK	1.2	-	-	-	-	-	1.2
Kronberg/D	3.0	-	-	1.0 Arnhem 1.0 Prague	1.0 Hunnebostrand	1.0	3.0
Lauhanvuori Nat.Park/FIN	2.5	3.0	-	0.1 Ranua	-	-	5.6
Liberec/CZ	1.2	1.0	1.0	-	-	1.0	1.2
Lycksele/S	3.4	1.1	-	1.0 Hunnebostrand	-	3.1	2.4
Magdeburg/D	1.0**	-	-	-	1.0 Han sur Lesse	-	-
Moscow/RUS	5.8	3.2	-	-	-	1.0	7.10
Pleugueneuc/F	1.4	2.1	2.0	-	-	2.1	1.4
Plock/POL	1.3	-	-	-	-	0.1	1.2
Prague/CZ	3.3	2.1	1.0	-	2.0 Pleugueneuc 1.0 Kronberg	1.1	1.3
Ranua/FIN	3.4	1.2	1.1	-	0.1 Lauhanvuori	1.3	3.2
Riga/LAT	2.4	1.0	1.0	-	1.0 Berlin Zoo	1.0	1.4
Rotterdam/NL	1.2	1.1	1.1	-	-	1.1	1.2
Salzburg/AUT	1.2	-	-	-	-	-	1.2
Seitsemien Nat.Park/FIN	1.5	2.0	-	0.2 Helsinki	-	-	3.7
Total	56.94	25.24	10.6	12.6	18.6	17.14	58.104
(in 25 institutions)	(150)	(49)	(16)	(18)	(24)	(31)	(162)

Table 1. Changes in captive forest reindeer population 2018. New participant marked in italic.

* Transf. to acclimatisation area and released 11. May 2019 ** Earlier informed as 2.0

were born, 33% (10.6) of which died within half a year. The total of deceased individuals was 31 (17.14) head, while 18 (12.6) reindeer were transferred between the participating institutions in the programme. As planned, the free-living subpopulation in the Karstula-Ähtäri area will be supplemented with captive-bred individuals and in 2018, six captive-bred stags were transferred to the transit enclosure in Aittasuo Nature Reserve for release in spring 2019.

As Magdeburg left the ESB whilst Han-sur-Lesse joined the programme during 2018, the number of participating institutions remained at 25 institutions. An encouraging sign is that three zoos - Opel Zoo (Kronberg), Reservé d'Animaux Sauvage (Han-sur-Lesse) and Augsburg - have agreed to keep bachelor herds. Although females represent the main reproductive unit in a population, the genomes of both sexes are equally important, particularly in polygamous species where dominant stags monopolize breeding of multiple hinds. The establishment of bachelor herds where stags can temporarily be maintained for exhibit until moved into breeding situations elsewhere is consequently beneficial for the breeding programme.

Additional holders are encouraged to keep backup groups of stags that can be rotated for breeding among participating holders. Four additional zoos have showed interest in surplus animals and have signed up for participation in 2019-2020 when animals will become available.

6.2. Demographic overhaul of the ESB population

The aim of the breeding programme is to establish a healthy population of forest reindeer in European zoos by promoting the use of good management practices to maintain a sustainable and jointly managed *ex situ* population that can contribute to viable populations in the wild. Since the establishment of the breeding programme, the studbook population has grown from 48 (18.30) animals in 2001 to 162 (58.104) individuals at the end of 2018 (Figure 6). Figure 7 shows that this favourable population development has been a result of captive births exceeding the number lost animals during 2001-2018. In the last five years, the captive population has exhibited an average yearly growth rate of 6.5% (average λ of 1.065).



Figure 7. Number of captive births/ deaths 2001-2018



Figure 8. Time of delivery. Figure based on 683 birth events 1980-2018

6.3. Fecundity

Forest reindeer are seasonal breeders and all recorded births have taken place from late April until mid-August, with a peak in May when 77% of all calves have been delivered (Figure 8). In captive conditions both sexes start to reproduce during the third year and females continue to give birth until the age of 13 when fecundity sharply drops (Figure 9). The oldest captive-bred female to have given birth was 15 years when she delivered her last calf. In captive conditions, stags have a shorter reproductive period than do females and the oldest male of known age to have sired a calf was 13 years and four months. It is worth mentioning, however, that the shorter fecundity in stags does not reflect their biological potential, but rather indicates the results of management practices utilized to avoid inbreeding, where males are rotated out of breeding situations after a short time. Among free-roaming forest reindeer, young stags unlikely have opportunities to mate when younger than two years.

Forest reindeer have a low reproductive potential and among the 683 calves that have been born, only one twin birth has been recorded. On this occasion, only one of the twins survived while the other was delivered stillborn (personal communication from Helsinki Zoo). Twin calves are also extremely rare in free-ranging populations (*Bisi & Härkönen 2017*).

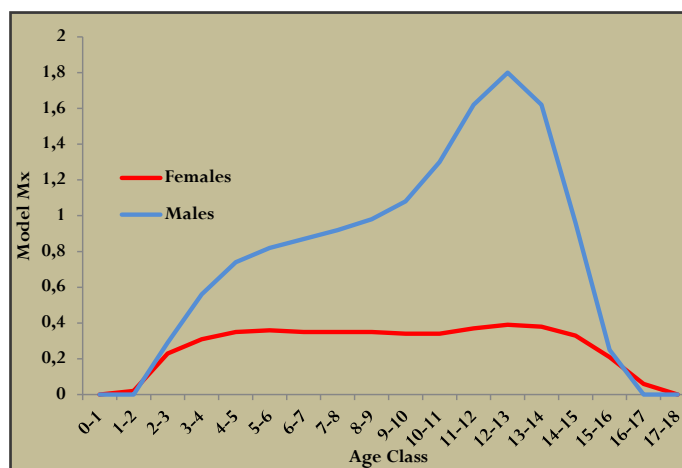


Figure 9. Age specific fecundity (Mx) calculated out of 634 birth events prior to 1.1. 2019

6.4. Mortality

Data of 501 death events for captive-born animals in the studbook reveals that the first six months are crucial for reindeer calves - there is a 34% chance that the calf will not survive its first year of life. Figure 10 illustrates that mortality drops after the first year and both sexes can live for more than ten years. The oldest captive-born stag lived for fourteen years and five months while the oldest female lived sixteen years and one month. In the current population, the oldest stag is twelve years and six months old, whereas the oldest hind is twelve years and seven months old. After eight years of age, mortality slowly starts to increase in both sexes and accelerates after age of ten.

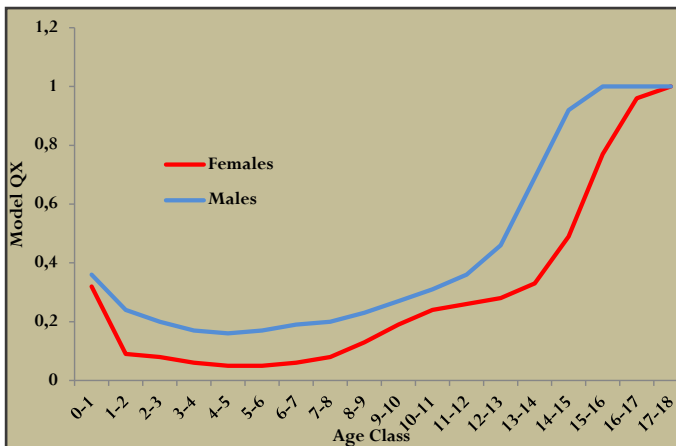


Figure 10. Age specific mortality (Q_x) calculated out of 501 death events prior to 1.1.2019

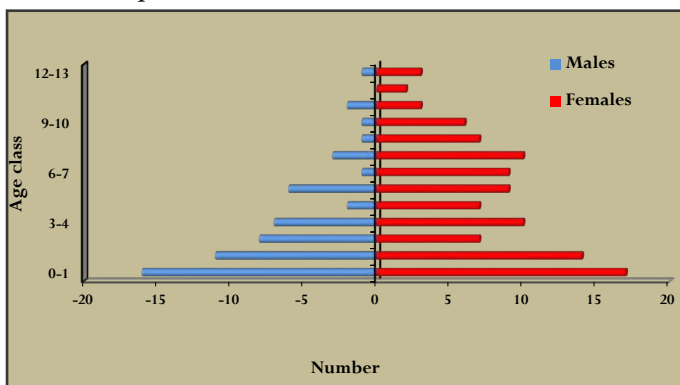


Figure 11. Age/sex pyramid in captive population as of 1.1.2019

The age structure of the studbook population is fairly stable, with a sex ratio skewed towards females (Figure 11) as can be expected in a polygamous species. Particularly during the last five years, the population has grown rapidly with an average of 42 births and 34 deaths each year (Figure 7). According to the current growth rate, the population will grow to about 250 individuals in the next few years. Worth remembering is, however, that all captive-bred animals in the two national parks will be used for reintroductions/re-stockings and the increase will therefore be significantly smaller than projected.

6.5. Genetic summary of the 2018 population

A critical factor in managing small populations is the number of founders from which the population descends. Twenty to 30 founders are recommended as the minimum number needed to maintain a long-term sustainable population (Leus

2011; Leus et al. 2011). Table 2 shows that although 20 wild-caught forest reindeer were brought into captivity, only eleven reproduced. Lack of breeding success among the 4.5 wild-caught individuals that did not reproduce may depend on a variety of reasons such as unsuccessful management in the past, advanced age or poor health status. Also, many founders that do breed may only have a few calves that themselves do not reproduce well and therefore show only a marginally visible representation in the current population. The disproportionate breeding results among the founders and their descendants is illustrated in Figure 12, showing a highly skewed contribution where one stag alone has contributed to half of the population's gene pool. Needless to say, populations with unequal founder representations contain less GD than populations with the same number of founders but where these have contributed more equally to future generations (Lacy 1989). Such a disproportionate founder contribution is common not only among a number of *ex situ* populations, but can also be found in the wild where the fittest individuals tend to produce more offspring.

The 11 wild-caught reindeer that have bred constitute the founder base in the existing *ex situ* population. Three wild-caught animals were alive in the collection in 2018. Thanks to the successful propagation of two of these in 2018, the number of founders increased from eight to 11 with one additional potential founder still living. Table 2 also shows that among the living animals, 16 stags and 57 hinds have reproduced at least once. A common misapprehension is that the number of living breeders corresponds to the effective population size (N_e). This is not the case - the effective population size can be calculated by using the equation:

$$N_e = 4 \times (M \times F) / M + F$$

where M = is the number of current breeding males and F = the number of current breeding females. Accordingly, N_e is not the number of currently reproducing individuals (73) in the population but de facto 42.5 (Table 3), representing 26% of the entire population. The ratio of N_e to N is thus a good indicator of the demographic and genetic health status of the population, informing the rate at which gene diversity is lost. The effective population size is normally substantially smaller than the actual population size (N) of 162 animals. Polygamous species where a dominant male controls

	Males	Females	Unknown	Total
Total registered	334	346	23	703
Wild-born	9	11	0	20
Captive-born	325	335	23	683
Alive 1.1.2019	58	104	0	162
Wild-born	2	1	0	3
Captive-born	56	103	0	159
Total number breeding animals	68	162	0	230
Wild-born	5	6	0	11
Captive-born	63	156	0	219
Breeding animals alive 1.1.2019	16	57	0	73
Wild-born	1	1	0	2
Captive-born	15	56	0	71

Table 2. Extracted data from studbook 1.1.2019.

breeding, further decreases N_e . The smaller N_e is, the more GD has been lost. In wild populations, the ratio of N_e/N is reported to lie at approximately 0.1 (Frankham 1995), whereas captive populations mostly have a N_e/N ratio that is larger than in the wild and ranges from 0.2 to 0.4 (Frankham et al. 2002; Mace 1986). In the forest reindeer studbook population, the N_e/N ratio of 0.26 (Table 3) falls within the range common to several captive populations (Mace 1986).

The amount of gene diversity is also linked to the numbers of individuals in the population and when the number of animals drops, GD declines. When a large number of animals breed, their cumulative genetic contribution will be passed on to the following generations allowing the population to better retain GD over time (Long et al. 2011). The current GD in the population is 85%, well below the ideal value of 90% or higher (Tetzloff 2016).

Because of bottleneck effects and the uneven reproductive success among the founders, the population has lost 15% of its GD during the 46 years reindeer have been managed in captive conditions. The current stock of 162 individuals thus displays the same amount of GD one finds among roughly three wild-born individuals ($F_{ge} = 3.27$). The most important event in 2018 was therefore without doubt the successful propagation of a pair of potential founders, the hind of which had been covered by a wild stag before she was captured. Further breeding with these new wild-born animals is consequently a priority for the breeding programme.

Table 3 shows, that simulations with the software Population Management 2000 (Pollak et al. 2002) indicate that if the

	Current	Potential
Population size (N)	162 (58.104)	
Number of descendants	159 (56.103)	
Percent known	99.7 %	
Effective population size (N_e)	42.48	
N_e/N	0.26	
Generation length in years (T)	5.7	
Percent population change/year (λ)	1.08	
Number of founders (Fnd)	11	1
Gene diversity (GD)	0.847	0.945
Mean kinship (MK)	0.153	
Fnd genome equivalents (Fge)	3.27	9.18
Mean inbreeding coefficient (F)	0.127	

Table 3. Demographic and genetic summary of captive population 1.1.2019

existing wild-caught animals can be bred successfully, GD can be significantly increased from its current level of 84.7%. If the potential founders that arrived in 2019 also can be incorporated into the breeding pool, the gene composition can be further improved. The on-going LIFE project has enabled the establishment of a distinctive *ex situ* population in Finnish zoos that currently represents a reservoir of new founders, the offspring of which can be transferred to captive populations abroad to reduce the level of inbreeding. Captive-born animals can consequently function as a nucleus to prepare individuals also for new restocking and reintroduction attempts if this becomes a suitable conservation strategy for wild forest reindeer also in other parts of Fennoscandia.

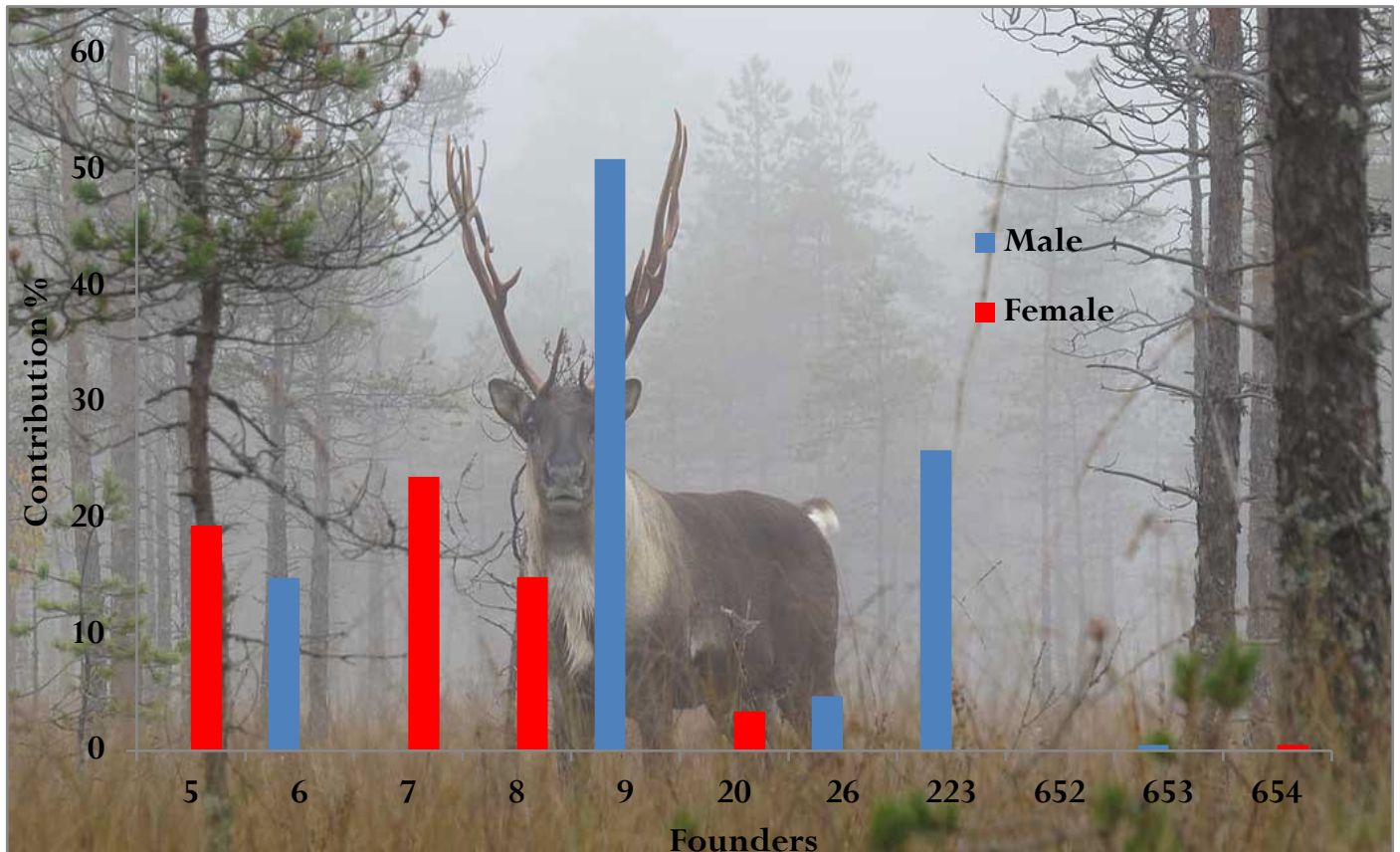


Figure 12. Founder contribution in *ex situ* population as of 1.1.2019

7. References

- Bisi, J. and S. Härkönen (2007): *Status of the wild forest reindeer population. In: Management Plan for the Wild Forest Reindeer Population in Finland.* pp. 21-26. <http://julkaisut.valtioneuvosto.fi/handle/10024/80554>
- Blomqvist, L. (2008): *The forest reindeer, Rangifer t. fennicus. Status in the EU and in captivity.* Helsinki Zoo Ann. Rep. 2006: 23-31. Helsinki Zoo
- Blomqvist, L. & D. M. Richardson (2012): *The forest reindeer. A success story of a large herbivore in Europe. In: European studbook for forest reindeer, Rangifer tarandus fennicus 2011.* pp. 3-7. Nordens Ark Foundation
- Blomqvist, L. (2015): *EAZA Husbandry guidelines for Eurasian forest reindeer, Rangifer t. fennicus, Lönnb. 1909 and the 2014 European studbook (ESB).* 59 pp. Nordens Ark Foundation
- Blomqvist, L. , A. Sliwa (2016): *Role of zoos in snow leopard conservation: Management of captive snow leopards in the EAZA region.* Pp 293-300. In: P. J. Nyhuis, T. McCarthy and D. Mallon (Eds.) *Biodiversity of the world: Conservation from genetics to landscapes. 1st edition. Snow Leopards.* Elsevier Press, London
- Blomqvist, L. and S. Mykrä (2017): *Reindeer recovery.* Zooquaria 96: 20-21
- Blomqvist, L. (2018): *Recovery plan for forest reindeer in the EU and the 2017 status for the species in European zoo collections. In: European studbook for forest reindeer, Rangifer tarandus fennicus, 2017: 4-11.* Nordens Ark Foundation
- Frankham, R. (1995): *Effective population size/adult population size ratios: A review.* Genet. Res. 66: 95-107
- Frankham, R., J. D. Ballou, D. A. Briscoe (2002): *Introduction to Conservation Genetics.* Cambridge University Press. Cambridge
- Heidanpää, J. and J. Pellikka (2013): *Metsäpeuran palautusistutuksen sosiaalisten vaikutusten ja niiden merkittävyyden arviointi. Suomen Riista 59: 64–85. (Finnish with Eng. summary). Social impact assessment of the potential reintroduction of wild forest reindeer Rangifer tarandus fennicus*
- Heikura, K., E. Pulliainen, P. I. Danilov, E. Erkinaro, V. A. Markovsky, L. Bljudnik, S. Sulkava, E. Kojola, I. Lindgren (1985): *Wild forest reindeer, Rangifer tarandus fennicus Lönn., its historical and recent occurrence and distribution in Finland and the Karelian ASSR (USSR) with special reference to the development and movements in Kuhmo (Finland) – Kamennojezero (USSR) subpopulation.* Aquilo Ser. Zool. 23: 22-45
- Hulkko, L. (2011): *Metsäpeura pelastui viime hetkellä. Suomen Luonto 4/2011: 18-20 (Finnish)*
Karelia ENPI CBC Programme project 2013-2014: <https://www.suomenpeura.fi/en/population-management/karelia-enpi-cbc-programme-project-2013-2014.html>
- Karlsson, A. (2009): *Metsäpeurat yhä useammin suden suuhun. Suomen Luonto 2/2009: 39 (Finnish)*
- Kojola, I. (1982): *Siirtopeurat Suomenselällä. In: Metsäpeuran paluu Kuhmosta Suomenselälle. (ed. R. Veijonen). WWF Finland, Metsähallitus, Metsästäjäin Keskusjärjestö. Kainuun Sanomain Kirjapaino (Finnish)*
- Kojola, I. (1993): *Peura- ja poroistutusten ekologiaa. Suomen Riista 39: 74-84 (Finnish)*
- Kojola, I., J. Tuomivaara, S. Heikkinen, K. Heikura, K. Kilpeläinen, J. Keränen, A. Paasivaara & V. Ruusila (2009): *European wild forest reindeer and wolves: endangered prey and predators. Ann. Zool. Fennici 46: 416-422*
- Kojola, I. (2011): *Large carnivores and the wild forest reindeer. In: From wild forest reindeer to biodiversity studies and environmental education. Abstracts of the 20th anniversary symposium of the Finnish – Russian Nature Reserve Friendship. (eds. O. Isokääntä and J. Heikkilä). Finnish Environment Institute, p. 30. http://helda.helsinki.fi/bitstream/handle/10138/40358/Abstracts_fnr20_symposium.pdf?sequence=1*
- Lacy, R. C. (1989): *Analysis of founder representation in pedigrees: Founder equivalents and founder genome equivalents. Zoo*

Biol. 8: 111-123

Lees, C. M & J. Wilcken (2013): *Global programmes for sustainability. WAZA Magazine* 12: 2-5

Leus, K. (2011): *The global captive population of the red panda – Possibilities for the future. In: Redpada. Biology and conservation of the first panda (ed. A. Glatston) pp. 335-356. Elsevier Press, London*

Leus, K., L. Bingaman Lackey, W. van Lint, D. de Man, S. Riewald, A. Veldkam, J. Wijmans (2011): *Sustainability of European Association of Zoos and Aquaria birds and mammal populations. WAZA Magazine* 12: 11-14

Long, S., C. Dorsey & P. Boyle (2011): *Status of association of zoos and aquariums cooperatively managed populations. WAZA Magazine* 12:15-18

Mace, G. M. (1986): *Genetic management of small populations. Int. Zoo Yearb.* 24/25: 167-174

Ministry of Agriculture and Forestry (2007): *Management plan for wild forest reindeer population in Finland. 77. pp <http://julkaisut.valtioneuvosto.fi/handle/10024/80554>*

Paasivaara, A., M. Gavrilov, A. Juntunen, S. Kokko, L. Korhonen, R. Ovaskainen and P. Timonen (2018): *Suomen metsäpeurakanta 2017. In: P. Helle (ed.) Riistakannat 2017. Luke 15/2018, Helsinki. 53 pp. (Finnish) http://jukuri.luke.fi/bitstream/handle/10024/541662/luke-luobio_15_2018.pdf?sequence=1&isAllowed=y*

Pollak, J. P., R. C. Lacy and J. D. Ballou. (2002): *Population Management 2000, version 1.163. Chicago Zoological Society, Brookfield, IL*

Red List of Finnish species (2019): <http://hdl.handle.net/10138/299501>

Sirkka, M. (2015): *Karjalan metsäpeuroja tutkitaan. Suomen Luonto* 9/2015: 54-57 (Finnish)

Tetzloff, J. (2016): *Role of zoos in snow leopard conservation: The Species Survival Plan in North America. Pp 301-310. In: P. J. Nyhuis, T. McCarthy and D. Mallon (Eds.) Biodiversity of the world: Conservation from genetics to landscapes. 1st edition. Snow Leopards. Elsevier Press, London*

8 Studbook

8.1. Living Forest reindeer population as of 1.1.2019 according to geographical location. Changes taking place after 1.1.2019 marked in red.

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
416	F	11 May 2011	270	173	HELSINKI SALZBURG	11 May 2011 7 Nov 2013	211007 S1863	Birth Transfer	GREEN 241	DUULI	95600008413264
557	M	26 May 2015	429	400	RIGA KRONBERG SALZBURG	26 May 2015 26 Oct 2015 15 Feb 2017	M15077 2475 S2372	Birth Transfer Transfer		SEPPI	9851170002978608
620	F	21 May 2017	506	416	SALZBURG	21 May 2017	S2406	Birth		LENNJA	040094501003889

Totals: 1.2.0 (3)

Reserve D'Animaux Sauvage, Han-sur-Lesse Roche, Namur, Belgium

314	M	7 May 2008	176	198	ARNHEM KERKRADE ROTTERDAM MAGDEBURG BERLINZOO HANSURLES	7 May 2008 12 Mar 2009 9 Feb 2010 20 Oct 2011 7 Feb 2013 10 Oct 2018 11 Sep 2019	614626 M08017 107965 443023 M0800020 GR333	Birth Transfer Transfer Transfer Transfer Transfer Death		RINUS	000680B219
611	M	12 Jun 2016	408	407	ARNHEM MAGDEBURG HANSURLES	12 Jun 2016 30 Nov 2016 10 Oct 2018	7076 443025 GR335	Birth Transfer Transfer	YELLOW		528257000004171
616	M	18 May 2017	401	447	PRAHA HANSURLES	18 May 2017 9 May 2018 11 Sep 2019	170156 GR318	Birth Transfer Death			
621	M	22 May 2017	266	420	JARVZOO HANSURLES	22 May 2017 19 Apr 2018	JZM17012 GR134	Birth Transfer			968000010584210
622	M	24 May 2017	266	350	JARVZOO HANSURLES	24 May 2017 19 Apr 2018	JZM17013 GR135	Birth Transfer			968000010592436
623	M	25 May 2017	401	431	PRAHA HANSURLES	25 May 2017 9 May 2018	170157 GR317	Birth Transfer			

Totals: 6.0.0 (6)

Parc Zoologique De La Bourbansais, Pleugueneuc, Ille-et-Vilaine, France

452	F	9 May 2013	355	343	BERLINZOO PLEUGUEN	9 May 2013 24 Mar 2014	M1300031 CR3	Birth Transfer			00074-EF37B
454	M	16 May 2013	330	259	HUNBSTRND PLEUGUEN	16 May 2013 25 Apr 2014	213019 CR4	Birth Transfer	WHITE	KOFF	968000010080420
456	F	24 May 2013	311	284	BERN PLEUGUEN	24 May 2013 24 Mar 2014	B30052 CR1	Birth Transfer			756098100629617
457	F	24 May 2013	311	264	BERN PLEUGUEN	24 May 2013 24 Mar 2014	B30053 CR2	Birth Transfer			756098100631100
656	F	9 May 2018	454	457	PLEUGUEN	9 May 2018	CR7	Birth			250229600071700

Totals: 1.4.0 (5)

Burgers' Zoo, Arnhem, Gelderland, The Netherlands

337	M	17 May 2009	223	235	AHTARI KERKRADE ARNHEM	17 May 2009 5 Nov 2013 14 Dec 2016	209006 M09200 7382	Birth Transfer Transfer	258 BLACK	JOHAN	985170002298737
-----	---	-------------	-----	-----	------------------------------	------------------------------------------	--------------------------	-------------------------------	-----------	-------	-----------------

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
397	F	17 May 2011	330	307	HUNBSTRND ARNHEM	17 May 2011 13 Apr 2012	211039 616968	Birth Transfer	D.BLUE/D.BLUMIRKA		977200007675453
407	F	22 May 2011	176	179	ARNHEM	22 May 2011	616407	Birth			0007023863
430	F	11 May 2012	176	198	ARNHEM	11 May 2012	617027	Birth	Light pink		00071AFBB4
490	F	14 May 2014	408	397	ARNHEM	14 May 2014	2313	Birth	Orange		5280934900326
562	F	31 May 2015	408	198	ARNHEM	31 May 2015	6531	Birth	Orange		528257000003282
633	F	21 May 2017	408	430	ARNHEM	21 May 2017	7572	Birth	L.blue		528257000036206
655	F	7 May 2018	337	397	ARNHEM AUGSBURG	7 May 2018 28 Feb 2019	8295 2019AH	Birth Transfer	YELLOW		528257000048768
659	F	11 May 2018	337	430	ARNHEM AUGSBURG	11 May 2018 28 Feb 2019 8 May 2019	8299 2019AG	Birth Transfer Death	Light Blue		528257000048767

Totals: 1.8.0 (9)

GaiaZOO Kerkrade, Kerkrade, Limburg, The Netherlands

267	F	22 May 2006	223	101	AHTARI KERKRADE	22 May 2006 20 Apr 2007 17 Jul 2019	206010 M06024	Birth Transfer Death	213 GREEN	JASSU	985120028553783
317	F	23 May 2008	184	206	KERKRADE	23 May 2008	M08037	Birth	BROWN/BLACK	GAIA 9	0006B8A44E
367	F	25 May 2009	184	267	KERKRADE	25 May 2009	M09058	Birth	BROWN 020	GAIA 16	0006C92CB6
408	M	29 May 2011	311	264	BERN ARNHEM KERKRADE	29 May 2011 20 Sep 2012 14 Dec 2016	B10069 617259 M11754	Birth Transfer Transfer		BILLY	756098100543212
570	F	7 Jun 2015	337	206	KERKRADE	7 Jun 2015	M15123	Birth	GREEN 002		528257000009128
579	F	21 Jun 2015	337	367	KERKRADE	21 Jun 2015	M15160	Birth	WHITE 013	GAIA 31	529257000009158
605	F	30 May 2016	337	267	KERKRADE	30 May 2016	M16249	Birth	BLUE 052	GAIA 34	528257000004302
639	F	3 Jun 2017	337	367	KERKRADE	3 Jun 2017	M17221	Birth	Pink 013	Gaia 38	528257000028958
680	F	31 May 2018	408	367	KERKRADE PRAHA	31 May 2018 14 Mar 2019	M18141 190068	Birth Transfer	White 050	Gaia 40	528257000033829
681	F	31 May 2018	408	267	KERKRADE PRAHA	31 May 2018 14 Mar 2019 14 May 2019	M18142 190069	Birth Transfer Death	Brown 039	Gaia 41	528257000033824

Totals: 1.9.0 (10)

Rotterdam Zoo, Rotterdam, South Holland, The Netherlands

341	F	26 May 2009	116	141	HUNBSTRND BORAS ROTTERDAM	26 May 2009 12 May 2010 10 Dec 2010	209021 HR0037 Z10058	Birth Transfer Transfer	RED/RED	RITA	977200007250298
565	M	2 Jun 2015	266	420	JARVZOO ROTTERDAM	2 Jun 2015 25 Sep 2017	JZM15029 Z17395	Birth Transfer	035	JAQUES	968000010594012
581	F	29 May 2015	187	341	ROTTERDAM	29 May 2015 30 May 2019	Z15118	Birth Death		SJAKIRA	528210004193881

Totals: 1.2.0 (3)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
-------	-----	------------	------	-----	----------	------	---------	-------	----------	------	-------------

Miejski Ogród Zoologiczny Plock, Plock, Poland

532	M	28 May 2014	187	341	ROTTERDAM PLOCK	28 May 2014 21 Oct 2015	Z14215 A20537	Birth Transfer		FEREK	528046000025976
547	F	19 May 2015	401	446	PRAHA PLOCK	19 May 2015 22 Mar 2016	150148 A20565	Birth Transfer			900032001749463
593	F	24 May 2016	266	158	JARVZOO PLOCK	24 May 2016 22 Nov 2017	JZM16007 A20644	Birth Transfer		MINA	968000010592607

Totals: 1.2.0 (3)

Tierpark Dählholzli, Bern, Switzerland

264	F	28 May 2006	137	120	HELSINKI BERN	28 May 2006 22 Mar 2007	206043 A70029	Birth Transfer	LIGHT BLUE	9YYLI	968000004143265
311	M	8 Jun 2008	270	200	HELSINKI BERN	8 Jun 2008 16 Nov 2009 27 Nov 2019	208039 A90261	Birth Transfer Death	PINK 193	AHTI	968000000397344
586	F	12 May 2016	408	430	ARNHEM BERN	12 May 2016 4 Jan 2018	7056 B80001	Birth Transfer	PURPLE		52825700004186
632	F	20 May 2017	408	397	ARNHEM BERN	20 May 2017 4 Jan 2018	7571 B80002	Birth Transfer	Yellow		528257000032396
686	F	3 Jun 2018	337	586	BERN	3 Jun 2018	B80169	Birth			75609810081152

Totals: 1.4.0 (5)

Zoologischer Garten Berlin Ag, Berlin, Germany

322	F	16 May 2008	219	115	RIGA BERLIN TP BERLINZOO	16 May 2008 26 Feb 2010 24 Mar 2010	M08137 M0800019	Birth Transfer Transfer		RAGNA	428098100000223
343	F	16 May 2009	219	220	RIGA BERLIN TP BERLINZOO	16 May 2009 26 Feb 2010 24 Mar 2010	M09070 M0900027	Birth Transfer Transfer			428098100000125
393	F	12 Jun 2010	176	315	BERLINZOO	12 Jun 2010	M1000015	Birth			0006B2B584
422	F	31 May 2011	355	322	BERLINZOO	31 May 2011	M1100025	Birth			0006B2FEB2
425	F	11 May 2012	355	343	BERLINZOO	11 May 2012	M1200027	Birth			0006B25C24
597	M	20 May 2016	429	400	RIGA BERLINZOO	20 May 2016 26 Nov 2018	M16097 M1600166	Birth Transfer			985141000868116

Totals: 1.5.0 (6)

Opel-Zoo Von Opel Hessische Zoostiftung, Kronberg, Hesse, Germany

459	M	4 Jun 2013	219	298	RIGA KRONBERG	4 Jun 2013 26 Oct 2015	M13096 2744	Birth Transfer		LIETUTINS	98511000344060
663	M	13 May 2018	401	447	PRAHA KRONBERG	13 May 2018 10 Dec 2018	180109 4145	Birth Transfer	White		900008800526412
668	M	19 May 2018	337	407	ARNHEM KRONBERG	19 May 2018 6 Dec 2018 30 May 2019	8300 4136	Birth Transfer Death	Green		528257000048764

Totals: 3.0.0 (3)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
-------	-----	------------	------	-----	----------	------	---------	-------	----------	------	-------------

The Prague Zoological Garden, Praha, Czech Republic

401	M	19 May 2011	219	298	RIGA PRAHA	19 May 2011 28 Oct 2013	M11060 130427	Birth Transfer		LORDS	985170000942082
431	F	17 May 2012	311	284	BERN PRAHA	17 May 2012 9 Oct 2013	B20077 130383	Birth Transfer			7560998100562596
447	F	10 May 2012	316	317	KERKRADE PRAHA	10 May 2012 6 Nov 2013	M12019 130451	Birth Transfer	PINK 001	GAIA 19	528093490007253
664	F	16 May 2018	401	446	PRAHA LIBEREC	16 May 2018 11 Mar 2019	180110 665009	Birth Transfer		SAANA	203094100001580

Totals: 1.3.0 (4)

Zoologicka Zahrada Liberec, Liberec, Severocesky, Czech Republic

426	F	12 May 2012	330	259	HUNBSTRND LIBEREC	12 May 2012 10 May 2013	212032 665001	Birth Transfer	ROSA/ROSA	YKSI	977200008167014
428	F	14 May 2012	330	307	HUNBSTRND LIBEREC	14 May 2012 10 May 2013	212035 665002	Birth Transfer	WHITE/WHITE	KAKSI	977200008167119
602	M	28 May 2016	337	367	KERKRADE LIBEREC	28 May 2016 28 Sep 2017	M16234 665007	Birth Transfer	BROWN	TEEMU	528257000004301

Totals: 1.2.0 (3)

591	M	22 May 2016	408	397	ARNHEM KINGUSSIE	22 May 2016 24 Oct 2017	7055 6058	Birth Transfer	WHITE	SVEN	528257000004181
608	F	30 May 2016	401	431	PRAHA KINGUSSIE	30 May 2016 23 Oct 2017	160161 6057	Birth Transfer		FREYA	

Totals: 1.2.0 (3)

Zoo Ahtari, Ahtari, Finland

375	F	13 May 2010	266	261	JARVZOO AHTARI	13 May 2010 16 Apr 2013	JZM10010 213005	Birth Transfer		GLENDIA	968000004326763
439	F	19 May 2012	266	280	JARVZOO AHTARI	19 May 2012 16 Apr 2013	JZM12006 213003	Birth Transfer	29	GERSTIN	968000004325683
440	F	20 May 2012	266	375	JARVZOO AHTARI	20 May 2012 16 Apr 2013	JZM12007 213004	Birth Transfer	26	GRETA	968000004320483
479	F	20 May 2013	266	375	AHTARI	20 May 2013	213016	Birth	0107	LENITA	985170002270017
505	F	13 May 2014	223	375	AHTARI	13 May 2014	214028	Birth	BLUE 385	FLOORA	
585	M	16 May 2016	270	369	HELSINKI AHTARI	16 May 2016 30 Oct 2017	216040 217039	Birth Transfer	Blue	ILMARI	934000011107143
600	M	24 May 2016	270	458	HELSINKI AHTARI	24 May 2016 30 Oct 2017	216043 217038	Birth Transfer	GREEN	IIVARI	934000011107147
629	F	19 May 2017	482	505	AHTARI LAUHANVUO	19 May 2017 15 Feb 2019	217015 PIPSA	Birth Transfer	Red 464	PIPSA	
631	F	21 May 2017	482	440	AHTARI	21 May 2017	217017	Birth	White	MONA	

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
660	F	14 May 2018	482	505	AHTARI	14 May 2018	218013	Birth	Yellow 070	HILMA	
661	M	15 May 2018	482	375	AHTARI	15 May 2018	218014	Birth	Orange 660	SVEN	
698	F	9 Jul 2018	600	440	AHTARI	9 Jul 2018	218039	Birth	Liliac 564	TONTTU	
					HELSINKI	23 Oct 2019	219103	Transfer			

Totals: 3.9.0 (13)

Seitsemien National Park, Ylojarvi, Finland

491	F	14 May 2014	330	307	HUNBSTRND	14 May 2014	214012	Birth	PINK	FINLANDIA	968000010165788
					AHTARI	4 Oct 2016	216053	Transfer			
					SEITSEMIN	28 Nov 2017	PINK	Transfer			
497	F	29 May 2014	330	373	HUNBSTRND	29 May 2014	214036	Birth	RED	FINKA	968000010166031
					AHTARI	4 Oct 2016	216051	Transfer			
					SEITSEMIN	28 Nov 2017	RED	Transfer			
					FINLAND	26 Nov 2019	Red	Release			
555	F	24 May 2015	389	227	RANUA	24 May 2015	215030	Birth	DARK PURPLE	MINNIPENNI	978101080838251
					SEITSEMIN	15 Nov 2017	56	Transfer			
					FINLAND	28 Nov 2019	Purple	Release			
594	F	20 May 2016	389	418	RANUA	20 May 2016	216023	Birth	Green 19	DIDI	978101080835409
					SEITSEMIN	15 Nov 2017	19	Transfer			
636	F	7 Jun 2017	567	458	HELSINKI	7 Jun 2017	217040	Birth	Red	JOIKU	934000011107127
					SEITSEMIN	6 Oct 2018	JOIKU	Transfer			
640	F	12 Jun 2017	567	369	HELSINKI	12 Jun 2017	217049	Birth	Green	JUOLUKKA	943000011107122
					SEITSEMIN	6 Oct 2018	JUOLUKKA	Transfer			
652	M	~ 2011	WILD	WILD	FINLAND	7 Nov 2017	NONE	Capture	Yellow AA	SAKARI	
					SEITSEMIN	8 Nov 2017	YELLOWAA	Transfer			
					RANUA	28 Mar 2019	219009	Transfer			
654	F	~ 2011	WILD	WILD	FINLAND	7 Nov 2017	NONE	Capture	Yellow		978101081038436
					SEITSEMIN	8 Nov 2017	YELLOW87	Transfer			
701	M	24 May 2018	WILD	654	SEITSEMIN	24 May 2018	701	Birth			
					FINLAND	29 Nov 2019		Release			
702	M	26 May 2018	480	491	SEITSEMIN	26 May 2018	702	Birth			
					FINLAND	29 Nov 2019		Release			

Totals: 3.7.0 (10)

Lauhanvuori National Park, Isojoki, Finland

388	F	13 May 2010	223	101	AHTARI	13 May 2010	210005	Birth	WHITE 189	JADE	985121018050353
					LAUHANVUO	1 Nov 2017	189	Transfer			
403	F	19 May 2011	223	235	AHTARI	19 May 2011	211001	Birth	WHITE 186	ELVIIRA	
					LAUHANVUO	1 Nov 2017	186	Transfer			
					FINLAND	3 Dec 2019	186	Release			
492	F	16 May 2014	330	259	HUNBSTRND	16 May 2014	214015	Birth	WHITE	JETZIN	968000010174269
					AHTARI	4 Oct 2016	216052	Transfer			
					LAUHANVUO	28 Nov 2017	WHITE	Transfer			
530	F	22 May 2012	223	253	AHTARI	22 May 2012	212004	Birth	Blue 328	JAFFA	
					LAUHANVUO	1 Nov 2017	328	Transfer			
					FINLAND	12 Dec 2019	328	Release			
558	F	21 May 2015	270	485	HELSINKI	21 May 2015	215028	Birth	Pink	HILLA	934000007103
					AHTARI	31 Oct 2016	216060	Transfer			
					LAUHANVUO	1 Nov 2017	PINK	Transfer			
618	F	20 May 2017	389	527	RANUA	20 May 2017	217012	Birth	Orange 191	CARLA	9781010808351165
					LAUHANVUO	11 Oct 2018	CARLA	Transfer			
638	M	6 Jun 2017	482	558	AHTARI	6 Jun 2017	217020	Birth	Violet 561	PATE	
					LAUHANVUO	1 Nov 2017	561	Transfer			
					FINLAND	10 Sep 2019		Release	Yel3/Blue37		

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
653	M	~ 2013	WILD	WILD	FINLAND	7 Nov 2017	NONE	Capture	Yellow BB	KALLE JUHANI	978101081038795
					LAUHANVUO	8 Nov 2017	YELLOWBB	Transfer			
					AHTARI	21 Mar 2019	219005	Transfer			
662	M	21 May 2018	480	492	LAUHANVUO	21 May 2018	662	Birth			
					FINLAND	12 Dec 2019	UNK	Release			
700	M	23 May 2018	MULT	558	LAUHANVUO	23 May 2018	700	Birth			
			Mult possible parents:		Sires: 482	(75%), 653 (25%),					
					FINLAND	12 Dec 2019	UNK	Release			
703	M	30 Jun 2018	653	403	LAUHANVUO	30 Jun 2018	703	Birth			
					FINLAND	10 Sep 2019		Release			

Totals: 5.6.0 (11)

Ranua Wildlife Park, Ranua, Finland

418	F	23 Jun 2011	270	200	HELSINKI	23 Jun 2011	211052	Birth	RED	DIMMA	956000001734688
					RANUA	16 Nov 2012	212061	Transfer			
489	F	1 Jun 2013	413	374	LYCKSELE	1 Jun 2013	LRTS1301	Birth	SE039435-001	MAJBRIIT	968000003414806
					RANUA	30 Apr 2015	215005	Transfer			
619	M	21 May 2017	389	489	RANUA	21 May 2017	217013	Birth	Green 020	MASA	
					LAUHANVUO	9 Apr 2019	MASA	Transfer			
					FINLAND	10 Sep 2019		Release	Green0020		
645	M	20 Jun 2017	389	418	RANUA	20 Jun 2017	217037	Birth	Grey 001	DUOMAS	
					LAUHANVUO	9 Apr 2019	DUOMAS	Transfer			
					FINLAND	10 Sep 2019		Release	Grey001		
676	M	21 May 2018	389	418	RANUA	21 May 2018	218007	Birth	L.purple 011	DIMI	
					LAUHANVUO	9 Apr 2019	011	Transfer			
					FINLAND	3 Dec 2019	LIFE42	Release			

Totals: 3.2.0 (5)

Helsinki Zoo, Helsinki, Finland

369	F	15 May 2010	270	173	HELSINKI	15 May 2010	210012	Birth	GREEN 274/BLCLIO		956000001737456
458	F	20 May 2013	219	220	RIGA	20 May 2013	M13092	Birth	YELLOW	KRUSA	98570002681727
					HELSINKI	25 Feb 2014	214001	Transfer			
485	F	3 Jun 2013	270	288	HELSINKI	3 Jun 2013	213044	Birth	WHITE	FINKA	956000008419397
						3 Jun 2019		Death			
567	M	15 May 2015	223	479	AHTARI	15 May 2015	215031	Birth	WHITE 170	MAXI	9851110057860
					HELSINKI	27 Oct 2016	216101	Transfer			
657	M	12 May 2018	567	458	HELSINKI	12 May 2018	218006	Birth	Light blue	KAIKU	934000011107195
					SEITSEMIN	13 Mar 2019	KAIKU	Transfer			
665	F	16 May 2018	567	485	HELSINKI	16 May 2018	218008	Birth	L.green	Kaarna	934000011107191
					SEITSEMIN	7 Oct 2019	Kaarna	Transfer			
666	F	16 May 2018	567	369	HELSINKI	16 May 2018	218009	Birth	Red	Karpalo	934000011107193
					RANUA	8 Oct 2019	219052	Transfer			

Totals: 2.5.0 (7)

Jarvzoo, Jarvso, Gavleborg, Sweden

261	F	24 May 2006	168	157	HUNBSTRND	24 May 2006	206018	Birth	GREEN/GREEN	MIKAELA	977200004210694
					JARVZOO	14 May 2007	JZM07031	Transfer			
						3 Oct 2019		Death			
266	M	2 Jun 2006	207	204	BORAS	2 Jun 2006	HR0023	Birth		CIRIUS	968000000272488
					JARVZOO	23 Jan 2008	JZM08004	Transfer			
						18 Sep 2019		Death			

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
350	F	15 Jun 2009	240	279	LYCKSELE JARVZOO	15 Jun 2009 22 Nov 2011	LRTS0902 JZM11029	Birth Transfer	Purple	FLORA	968000004367726
420	F	20 May 2011	240	279	LYCKSELE JARVZOO	20 May 2011 22 Nov 2011	LRTS1103 JZM11028	Birth Transfer		HILDUR	968000003399786
672	F	22 May 2018	266	350	JARVZOO	22 May 2018	18010	Birth		ODA	
673	F	14 May 2018	266	261	JARVZOO	14 May 2018	JZM18009	Birth		OLIVIA	

Totals: 1.5.0 (6)

Nordens Ark, Hunnebostrand, Sweden

373	F	26 May 2010	116	145	HUNBSTRND	26 May 2010	210031	Birth		IRMA	977200007465015
599	F	23 May 2016	330	373	HUNBSTRND	23 May 2016	216054	Birth	WHITE	PYRY	968000010165467
604	M	30 May 2016	506	416	SALZBURG KRONBERG HUNBSTRND	30 May 2016 14 Feb 2017 16 Nov 2018	S2275 3782 218177	Birth Transfer Transfer			040094501003862
617	F	18 May 2017	266	261	JARVZOO HUNBSTRND	18 May 2017 24 Apr 2018	JZM17011 218034	Birth Transfer		ROHKEA	968000010595938
674	M	26 May 2018	571	373	HUNBSTRND JARVZOO	26 May 2018 22 Mar 2019	218044 JZM19002	Birth Transfer	Light green	KALLIO	968000010165152

Totals: 2.3.0 (5)

Slottsskogen Zoo, Goteborg, Sweden

539	M	15 May 2015	330	307	HUNBSTRND SLOTTSKOG	15 May 2015 9 Mar 2016	215015 2016002	Birth Transfer	LILIAC	RAKKI	752098100700395
550	F	22 May 2015	311	264	BERN SLOTTSKOG	22 May 2015 8 Mar 2016	B50104 2016001	Birth Transfer		LAVRA	756098100688686
566	F	22 May 2015	266	350	JARVZOO SLOTTSKOG	22 May 2015 21 Mar 2016 1 Sep 2019	JZM15020 2016004	Birth Transfer Death	034	AILA	968000010080094
574	F	16 May 2015	266	158	JARVZOO SLOTTSKOG	16 May 2015 21 Mar 2016	JZM15018 2016003	Birth Transfer	033	NOOMI	968000010080969

Totals: 1.3.0 (4)

Lycksele Djurpark/Zoo, Lycksele, Sweden

278	F	15 May 2007	116	157	HUNBSTRND LYCKSELE	15 May 2007 5 Feb 2008	207020 LRTS0701	Birth Transfer	GREEN/GREEN	RANJA	977200004321311
374	F	17 May 2010	240	278	LYCKSELE	17 May 2010	LRTS1001	Birth		RITA	968000003432874
646	M	22 Jun 2017	571	307	HUNBSTRND LYCKSELE	22 Jun 2017 23 Apr 2018	217135 LRTS1705	Birth Transfer	Yellow	PAKKILA	752098100816663
650	F	7 Jun 2017	560	279	LYCKSELE	7 Jun 2017	LRTS1704	Birth		MIESSI	
691	M	19 May 2018	560	278	LYCKSELE	19 May 2018 14 May 2019	LRTS1801	Birth Death			
692	F	21 May 2018	560	374	LYCKSELE	21 May 2018	LRTS1802	Birth			

Totals: 2.4.0 (6)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
-------	-----	------------	------	-----	----------	------	---------	-------	----------	------	-------------

Riga Zoo, Riga, Latvia

298	F	25 May 2007	223	235	AHTARI RIGA	25 May 2007 24 Apr 2008	207004 M07219	Birth Transfer	536 LILAC	LIME	246098100189586
400	F	14 May 2011	219	220	RIGA	14 May 2011	M11059	Birth		REZIJA	985170000942783
402	F	26 May 2011	219	115	RIGA	26 May 2011	M11064	Birth		KALME	985170000951327
429	M	18 May 2012	270	173	HELSINKI RIGA	18 May 2012 27 Feb 2014	212005 M12290	Birth Transfer		ELMO	956000001842455
523	F	27 May 2014	219	298	RIGA	27 May 2014	M14119	Birth		LAIMINA	

Totals: 1.4.0 (5)

Moscow Zoological Park, Moscow, Russia

325	F	15 May 2008	223	101	AHTARI MOSCOW	15 May 2008 16 Dec 2011	208008 110669	Birth Transfer	WHITE 184	REBEKKA	985121005406388
338	F	19 May 2009	223	253	AHTARI MOSCOW	19 May 2009 16 Dec 2011	209007 110671	Birth Transfer	LILIAC 547	NEELA	
354	F	14 Aug 2009	270	200	HELSINKI MOSCOW	14 Aug 2009 16 Dec 2011	209063 110664	Birth Transfer	PINK	BAJAJAGA	956000001838283
381	M	14 May 2010	219	115	RIGA MOSCOW	14 May 2010 20 Apr 2011	M10149 110183	Birth Transfer		RANTANS	972270000005576
392	F	26 May 2010	228	172	RANUA MOSCOW	26 May 2010 16 Dec 2011	210026 110667	Birth Transfer	GREEN 10	MANJA	985170000342098
461	M	19 May 2013	380	354	MOSCOW	19 May 2013	130109	Birth	132		
466	M	5 Jun 2013	381	339	MOSCOW	5 Jun 2013	130260	Birth			
588	F	16 May 2016	381	392	MOSCOW	16 May 2016	160176	Birth			
624	F	20 May 2017	381	325	MOSCOW	20 May 2017	170889	Birth			
625	M	22 May 2017	381	354	MOSCOW	22 May 2017	170890	Birth			
626	F	24 May 2017	381	338	MOSCOW	24 May 2017	170891	Birth			
627	F	26 May 2017	381	392	MOSCOW	26 May 2017 13 Nov 2019	170892	Birth Death			
669	M	19 May 2018	381	354	MOSCOW	19 May 2018	180248	Birth			
670	M	20 May 2018	461	588	MOSCOW	20 May 2018	180249	Birth			
671	F	20 May 2018	381	325	MOSCOW KERZHENSK	20 May 2018 15 Feb 2019	180250 18020313	Birth Transfer		VETLUJHKA	6430941100491559
685	M	25 May 2018	381	392	MOSCOW	25 May 2018	180277	Birth			
695	F	28 Jun 2018	381	338	MOSCOW KERZHENSK	28 Jun 2018 15 Feb 2019	180337 18020414	Birth Transfer		VICHONKA	643094100491558

Totals: 7.10.0 (17)

Zapovednik Kerzhensky, Nizhny Novgorod, Russia

462	F	19 May 2013	381	390	MOSCOW KERZHENSK	19 May 2013 4 Dec 2014	130110 462	Birth Transfer		LENA	
464	M	20 May 2013	380	387	MOSCOW KERZHENSK	20 May 2013 25 Dec 2014	130112 464	Birth Transfer	135	IGNAT	
518	M	19 May 2014	381	390	MOSCOW KERZHENSK	19 May 2014 4 Dec 2014	140162 518	Birth Transfer		ZAHAR	

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
521	F	28 May 2014	380	354	MOSCOW KERZHENSK	28 May 2014 4 Dec 2014	140238 521	Birth Transfer		LUSYA	
540	M	12 May 2015	381	325	MOSCOW KERZHENSK	12 May 2015 17 Mar 2016 12 Dec 2019	150195 150101-6	Birth Transfer Death			
543	M	17 May 2015	380	339	MOSCOW KERZHENSK	17 May 2015 17 Mar 2016	150207 543	Birth Transfer			
564	M	2 Jun 2015	381	338	MOSCOW KERZHENSK	2 Jun 2015 17 Mar 2016	150253 564	Birth Transfer			
612	M	14 Jun 2016	464	462	KERZHENSK	14 Jun 2016	ZINOVIY	Birth		ZINOVIY	
641	M	10 Jun 2017	518	521	KERZHENSK	10 Jun 2017	17101-10	Birth		TOSHA	
667	F	15 May 2018	518	521	KERZHENSK	15 May 2018	18201-11	Birth			
687	M	8 Jun 2018	464	462	KERZHENSK	8 Jun 2018	18010211	Birth			180102-11

Totals: 8.3.0 (11)

TOTALS: 58.104.0 (162)

25 Institutions

Compiled by: Leif Blomqvist thru Nordens Ark
 Data current thru: 1.1. 2019 - European regional
 Printed on 11 Jun 2019 using Sparks v1.65

8.2. Forest reindeer births 2018. Changes taking place after 1.1.2019 marked in red.

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
655	F	7 May 2018	337	397	ARNHEM AUGSBURG	7 May 2018 28 Feb 2019	8295 2019AH	Birth Transfer	YELLOW		528257000048768
656	F	9 May 2018	454	457	PLEUGUEN	9 May 2018	CR7	Birth			250229600071700
657	M	12 May 2018	567	458	HELSINKI SEITSEMIN FINLAND	12 May 2018 13 Mar 2019 26 Nov 2019	218006 KAIKU L.Blue	Birth Transfer Release	Light blue	KAIKU	934000011107195
658	M	14 May 2018	337	490	ARNHEM	14 May 2018 18 May 2018	8298	Birth Death	Yellow		528257000048763
659	F	11 May 2018	337	430	ARNHEM AUGSBURG	11 May 2018 28 Feb 2019 8 May 2019	8299 2019AG	Birth Transfer Death	Light Blue		528257000048767
660	F	14 May 2018	482	505	AHTARI	14 May 2018	218013	Birth	Yellow 070	HILMA	
661	M	15 May 2018	482	375	AHTARI	15 May 2018	218014	Birth	Orange 660	SVEN	
662	M	21 May 2018	480	492	LAUHANVUO FINLAND	21 May 2018 12 Dec 2019	662 UNK	Birth Release			
663	M	13 May 2018	401	447	PRAHA KRONBERG	13 May 2018 10 Dec 2018	180109 4145	Birth Transfer	White		900008800526412
664	F	16 May 2018	401	446	PRAHA LIBEREC	16 May 2018 11 Mar 2019	180110 665009	Birth Transfer		SAANA	203094100001580
665	F	16 May 2018	567	485	HELSINKI SEITSEMIN	16 May 2018 7 Oct 2019	218008 Kaarna	Birth Transfer	L.green	Kaarna	934000011107191
666	F	16 May 2018	567	369	HELSINKI RANUA	16 May 2018 8 Oct 2019	218009 210952	Birth Transfer	Red	Karpalo	934000011107193
667	F	15 May 2018	518	521	KERZHENSK	15 May 2018	18201-11	Birth			
668	M	19 May 2018	337	407	ARNHEM KRONBERG	19 May 2018 6 Dec 2018 30 May 2019	8300 4136	Birth Transfer Death	Green		528257000048764
669	M	19 May 2018	381	354	MOSCOW	19 May 2018	180248	Birth			
670	M	20 May 2018	461	588	MOSCOW	20 May 2018	180249	Birth			
671	F	20 May 2018	381	325	MOSCOW KERZHENSK	20 May 2018 15 Feb 2019	180250 18020313	Birth Transfer		VETLUJHKA	6430941100491559
672	F	22 May 2018	266	350	JARVZOO	22 May 2018	18010	Birth		ODA	
673	F	14 May 2018	266	261	JARVZOO	14 May 2018	JZM18009	Birth		OLIVIA	
674	M	26 May 2018	571	373	HUNBSTRND JARVZOO	26 May 2018 22 Mar 2019	218044 JZM19002	Birth Transfer	Light green	KALLIO	968000010165152
675	F	28 May 2018	408	570	KERKRADE	28 May 2018 25 Jun 2018	M18138	Birth Death	Green 0004		528257000033825
676	M	21 May 2018	389	418	RANUA LAUHANVUO FINLAND	21 May 2018 9 Apr 2019 3 Dec 2019	218007 011 LIFE42	Birth Transfer Release	L.purple 011	DIMI	
677	M	29 May 2018	408	569	KERKRADE	29 May 2018 16 Jun 2018	M18137	Birth Death	Yellow 002		528257000033830
678	F	20 May 2018	389	527	RANUA	20 May 2018 20 May 2018	218006	Birth Death			
679	F	21 May 2018	389	489	RANUA	21 May 2018 3 Jul 2018	218008	Birth Death	D.purple 003	MINDI	
680	F	31 May 2018	408	367	KERKRADE PRAHA	31 May 2018 14 Mar 2019	M18141 190068	Birth Transfer	White 050	Gaia 40	528257000033829
681	F	31 May 2018	408	267	KERKRADE PRAHA	31 May 2018 14 Mar 2019 14 May 2019	M18142 190069	Birth Transfer Death	Brown 039	Gaia 41	528257000033824

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
682	F	31 May 2018	571	599	HUNBSTRND	31 May 2018 3 Jul 2018	218066	Birth Death	L.blue	RINNE	968000010172686
683	F	3 Jun 2018	266	420	JARVZOO	3 Jun 2018 18 Jun 2018	JZM18011	Birth Death		OSA	
684	M	22 May 2018	401	431	PRAHA	22 May 2018 10 Oct 2018	180133	Birth Death			
685	M	25 May 2018	381	392	MOSCOW	25 May 2018	180277	Birth			
686	F	3 Jun 2018	337	586	BERN	3 Jun 2018	B80169	Birth			75609810081152
687	M	8 Jun 2018	464	462	KERZHENSK	8 Jun 2018	18010211	Birth		180102-11	
688	M	9 Jun 2018	454	456	PLEUGUEN	9 Jun 2018 25 Jun 2018	CR8	Birth Death			250229600071606
689	M	19 Jun 2018	454	452	PLEUGUEN	19 Jun 2018 19 Jun 2018	CR9	Birth Death			
690	M	15 Jun 2018	429	402	RIGA	15 Jun 2018 12 Sep 2018	M18096	Birth Death		MERKUIJS	900182001758111
691	M	19 May 2018	560	278	LYCKSELE	19 May 2018 14 May 2019	LRTS1801	Birth Death			
692	F	21 May 2018	560	374	LYCKSELE	21 May 2018	LRTS1802	Birth			
693	M	9 Jun 2018	482	439	AHTARI	9 Jun 2018 9 Jun 2018	218021	Birth Death			
694	F	28 Jun 2018	565	341	ROTTERDAM	28 Jun 2018 23 Jul 2018	Z18173	Birth Death		ELLA	528210004716843
695	F	28 Jun 2018	381	338	MOSCOW KERZHENSK	28 Jun 2018 15 Feb 2019	180337 18020414	Birth Transfer		VICHONKA	643094100491558
696	M	4 Jul 2018	565	581	ROTTERDAM	4 Jul 2018 28 Jul 2018	Z18183	Birth Death		SVEN	528210004716969
697	M	18 Jul 2018	602	426	LIBEREC	18 Jul 2018 18 Jul 2018	665008	Birth Death			
698	F	9 Jul 2018	600	440	AHTARI HELSINKI	9 Jul 2018 23 Oct 2019	218039 219103	Birth Transfer	Liliac 564	TONTTU	
699	F	28 Jul 2018	600	479	AHTARI	28 Jul 2018 3 Aug 2018	218044	Birth Death	Blue 373		
700	M	23 May 2018	MULT Mult possible parents:	558	LAUHANVUO	23 May 2018 (75%), 653 (25%),	700	Birth			
					FINLAND	12 Dec 2019	UNK	Release			
701	M	24 May 2018	WILD	654	SEITSEMIN FINLAND	24 May 2018 29 Nov 2019	701	Birth Release			
702	M	26 May 2018	480	491	SEITSEMIN FINLAND	26 May 2018 29 Nov 2019	702	Birth Release			
703	M	30 Jun 2018	653	403	LAUHANVUO FINLAND	30 Jun 2018 10 Sep 2019	703	Birth Release			

TOTALS: 25.24.0 (49)

Compiled by: Leif Blomqvist thru Nordens Ark
Data current thru: 1.1.2019 - European regional
Printed on 11 Jun 2019 using Sparks v1.65

8.3. Forest Reindeer deaths 2018. Death events taking place after 1.1.2019 marked in red.

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
307	F	19 May 2008	116	157	HUNBSTRND	19 May 2008 21 Feb 2018	208031	Birth Death	VIOLET/VIOLEERAJA		977200007078792
389	M	16 May 2010	223	237	AHTARI RANUA	16 May 2010 20 Nov 2011 27 Aug 2018	210007 211058	Birth Transfer Death	BLUE 336	JOKKE	985121018247575
446	F	27 May 2012	270	288	HELSINKI PRAHA	27 May 2012 28 Oct 2013 10 Jul 2018	212016 130428	Birth Transfer Death	Pink	ELOVEENA	956000008385445
463	M	20 May 2013	381	325	MOSCOW	20 May 2013 16 Sep 2018	130111	Birth Death			
480	M	26 May 2013	389	172	RANUA AHTARI	26 May 2013 8 Oct 2015 8 Aug 2018	213008 215068	Birth Transfer Death	GREEN 003	MAGNUS	978101081198891
527	F	16 May 2014	413	349	LYCKSELE RANUA	16 May 2014 30 Apr 2015 26 Jun 2018	LRTS1401 215006	Birth Transfer Death	SE0394350013	CAROLA	968000003468955
544	M	19 May 2015	311	284	BERN KRONBERG	19 May 2015 21 Apr 2016 25 Sep 2018	B50088 3783	Birth Transfer Death			7560981006969824
560	M	30 May 2015	266	261	JARVZOO LYCKSELE	30 May 2015 22 Sep 2015 18 Apr 2018	JZM15030 LRTS1505	Birth Transfer Death	Blue	VIKING	968000010110947
569	F	5 Jun 2015	337	267	KERKRADE	5 Jun 2015 4 Oct 2018	M15122	Birth Death	RED 038		528257000009127
571	M	15 May 2015	223	440	AHTARI HUNBSTRND	15 May 2015 28 Oct 2016 14 Oct 2018	215032 216181	Birth Transfer Death	BLUE 309	ALVAR	985111001057859
595	F	26 May 2016	266	420	JARVZOO PLOCK	26 May 2016 22 Nov 2017 3 Oct 2018	JZM16008 A20645	Birth Transfer Death		MEDINA	968000010592830
643	F	22 May 2017	454	457	PLEUGUEN	22 May 2017 7 Apr 2018	CR5	Birth Death			955000004050807
648	M	29 May 2017	560	349	LYCKSELE	29 May 2017 18 Apr 2018	LRTS1701	Birth Death		ESTERKALV	
649	M	5 Jun 2017	560	278	LYCKSELE	5 Jun 2017 18 Apr 2018	LRTS1702	Birth Death		RANJAKALV	
651	F	8 Jun 2017	560	374	LYCKSELE	8 Jun 2017 18 Apr 2018	LRTS1703	Birth Death		RITAKALV	
658	M	14 May 2018	337	490	ARNHEM	14 May 2018 18 May 2018	8298	Birth Death	Yellow		528257000048763
675	F	28 May 2018	408	570	KERKRADE	28 May 2018 25 Jun 2018	M18138	Birth Death	Green 0004		528257000033825
677	M	29 May 2018	408	569	KERKRADE	29 May 2018 16 Jun 2018	M18137	Birth Death	Yellow 002		528257000033830
678	F	20 May 2018	389	527	RANUA	20 May 2018 20 May 2018	218006	Birth Death			
679	F	21 May 2018	389	489	RANUA	21 May 2018 3 Jul 2018	218008	Birth Death	D.purple 003	MINDI	
682	F	31 May 2018	571	599	HUNBSTRND	31 May 2018 3 Jul 2018	218066	Birth Death	L.blue	RINNE	968000010172686
683	F	3 Jun 2018	266	420	JARVZOO	3 Jun 2018 18 Jun 2018	JZM18011	Birth Death		OSA	
684	M	22 May 2018	401	431	PRAHA	22 May 2018 10 Oct 2018	180133	Birth Death			

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
688	M	9 Jun 2018	454	456	PLEUGUEN	9 Jun 2018 25 Jun 2018	CR8	Birth Death			250229600071606
689	M	19 Jun 2018	454	452	PLEUGUEN	19 Jun 2018 19 Jun 2018	CR9	Birth Death			
690	M	15 Jun 2018	429	402	RIGA	15 Jun 2018 12 Sep 2018	M18096	Birth Death		MERKUIJS	900182001758111
693	M	9 Jun 2018	482	439	AHTARI	9 Jun 2018 9 Jun 2018	218021	Birth Death			
694	F	28 Jun 2018	565	341	ROTTERDAM	28 Jun 2018 23 Jul 2018	Z18173	Birth Death		ELLA	528210004716843
696	M	4 Jul 2018	565	581	ROTTERDAM	4 Jul 2018 28 Jul 2018	Z18183	Birth Death		SVEN	528210004716969
697	M	18 Jul 2018	602	426	LIBEREC	18 Jul 2018 18 Jul 2018	665008	Birth Death			
699	F	28 Jul 2018	600	479	AHTARI	28 Jul 2018 3 Aug 2018	218044	Birth Death	Blue 373		

TOTALS: 17.14.0 (31)

Compiled by: Leif Blomqvist thru Nordens Ark
Data current thru: 1.1.2019 - European regional
Printed on 11 Jun 2019 using Sparks v1.65

8.4. Forest reindeer transfers 2018. Changes taking place after 1.1.2019 marked in red.

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
314	M	7 May 2008	176	198	ARNHEM	7 May 2008	614626	Birth		RINUS	000680B219
					KERKRADE	12 Mar 2009	M08017	Transfer			
					ROTTERDAM	9 Feb 2010	107965	Transfer			
					MAGDEBURG	20 Oct 2011	443023	Transfer			
					BERLINZOO	7 Feb 2013	M0800020	Transfer			
					HANSURLES	10 Oct 2018	GR333	Transfer			
					11 Sep 2019		Death				
482	M	3 Jun 2013	389	418	RANUA	3 Jun 2013	213013	Birth	Violet 568	TOFFO	978101081198865
					AHTARI	8 Oct 2015	215065	Transfer			
					FINLAND	12 Sep 2018	568	Transfer			
					FINLAND	11 May 2019	568	Release			
494	M	19 May 2014	389	418	RANUA	19 May 2014	214022	Birth	White 153	MOKKE	978101081157058
					AHTARI	8 Oct 2015	215066	Transfer			
					FINLAND	6 Sep 2018	153	Transfer			
					FINLAND	11 May 2019	153	Release			
524	M	29 May 2014	389	227	RANUA	29 May 2014	214025	Birth	White 157	MIKKI	978101198852
					AHTARI	8 Oct 2015	215067	Transfer			
					FINLAND	12 Sep 2018	157	Transfer			
					FINLAND	11 May 2019	157	Release			
559	M	27 May 2015	270	458	HELSINKI	27 May 2015	215029	Birth	L.green 279	HAVU	
					AHTARI	31 Oct 2016	216059	Transfer			
					FINLAND	6 Sep 2018	279	Transfer			
					FINLAND	11 May 2019	279	Release			
586	F	12 May 2016	408	430	ARNHEM	12 May 2016	7056	Birth	PURPLE		52825700004186
					BERN	4 Jan 2018	B80001	Transfer			
597	M	20 May 2016	429	400	RIGA	20 May 2016	M16097	Birth			985141000868116
					BERLINZOO	26 Nov 2018	M1600166	Transfer			
604	M	30 May 2016	506	416	SALZBURG	30 May 2016	S2275	Birth			040094501003862
					KRONBERG	14 Feb 2017	3782	Transfer			
					HUNBSTRND	16 Nov 2018	218177	Transfer			
611	M	12 Jun 2016	408	407	ARNHEM	12 Jun 2016	7076	Birth	YELLOW		528257000004171
					MAGDEBURG	30 Nov 2016	443025	Transfer			
					HANSURLES	10 Oct 2018	GR335	Transfer			
614	M	15 May 2017	482	479	AHTARI	15 May 2017	217010	Birth	Orange 667	JUHA	
					FINLAND	12 Sep 2018	667	Transfer			
					FINLAND	11 May 2019	667	Release			
					FINLAND	11 May 2019		Death			
616	M	18 May 2017	401	447	PRAHA	18 May 2017	170156	Birth			
					HANSURLES	9 May 2018	GR318	Transfer			
					FINLAND	11 Sep 2019		Death			
617	F	18 May 2017	266	261	JARVZOO	18 May 2017	JZM17011	Birth		ROHKEA	968000010595938
					HUNBSTRND	24 Apr 2018	218034	Transfer			
618	F	20 May 2017	389	527	RANUA	20 May 2017	217012	Birth	Orange 191	CARLA	9781010808351165
					LAUHANVUO	11 Oct 2018	CARLA	Transfer			
621	M	22 May 2017	266	420	JARVZOO	22 May 2017	JZM17012	Birth			968000010584210
					HANSURLES	19 Apr 2018	GR134	Transfer			
622	M	24 May 2017	266	350	JARVZOO	24 May 2017	JZM17013	Birth			968000010592436
					HANSURLES	19 Apr 2018	GR135	Transfer			
623	M	25 May 2017	401	431	PRAHA	25 May 2017	170157	Birth			
					HANSURLES	9 May 2018	GR317	Transfer			
632	F	20 May 2017	408	397	ARNHEM	20 May 2017	7571	Birth	Yellow		528257000032396
					BERN	4 Jan 2018	B80002	Transfer			
636	F	7 Jun 2017	567	458	HELSINKI	7 Jun 2017	217040	Birth	Red	JOIKU	934000011107127
					SEITSEMIN	6 Oct 2018	JOIKU	Transfer			
637	M	8 Jun 2017	567	485	HELSINKI	8 Jun 2017	217041	Birth	L.yellow 059	JAKALA	934000011107155
					AHTARI	19 Apr 2018	218003	Transfer			
					FINLAND	6 Sep 2018	059	Transfer			
					FINLAND	11 May 2019	059	Release			

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
640	F	12 Jun 2017	567	369	HELSINKI SEITSEMIN	12 Jun 2017 6 Oct 2018	217049 JUOLUKKA	Birth Transfer	Green	JUOLUKKA	943000011107122
646	M	22 Jun 2017	571	307	HUNBSTRND LYCKSELE	22 Jun 2017 23 Apr 2018	217135 LRTS1705	Birth Transfer	Yellow	PAKKILA	752098100816663
652	M	~ 2011	WILD	WILD	FINLAND SEITSEMIN RANUA	7 Nov 2017 8 Nov 2017 28 Mar 2019	NONE YELLOWAA 219009	Capture Transfer Transfer	Yellow AA	SAKARI	
663	M	13 May 2018	401	447	PRAHA KRONBERG	13 May 2018 10 Dec 2018	180109 4145	Birth Transfer	White		900008800526412
668	M	19 May 2018	337	407	ARNHEM KRONBERG	19 May 2018 6 Dec 2018 30 May 2019	8300 4136	Birth Transfer Death	Green		528257000048764

TOTALS: 18.6.0 (24)

Compiled by: Leif Blomqvist thru Nordens Ark
 Data current thru: 1.1.2019 - European regional
 Printed on 11 Jun 2019 using Sparks v1.65

8.5. Released Forest reindeer. Six stags were transferred to an acclimatization enclosure in September 2018, five of which were released in May 2019.

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
482	M	3 Jun 2013	389	418	RANUA AHTARI FINLAND FINLAND	3 Jun 2013 8 Oct 2015 12 Sep 2018 11 May 2019	213013 215065 568 568	Birth Transfer Transfer Release	Violet 568	TOFFO	978101081198865
494	M	19 May 2014	389	418	RANUA AHTARI FINLAND FINLAND	19 May 2014 8 Oct 2015 6 Sep 2018 11 May 2019	214022 215066 153 153	Birth Transfer Transfer Release	White 153	MOKKE	978101081157058
524	M	29 May 2014	389	227	RANUA AHTARI FINLAND FINLAND	29 May 2014 8 Oct 2015 12 Sep 2018 11 May 2019	214025 215067 157 157	Birth Transfer Transfer Release	White 157	MIKKI	978101198852
559	M	27 May 2015	270	458	HELSINKI AHTARI FINLAND FINLAND	27 May 2015 31 Oct 2016 6 Sep 2018 11 May 2019	215029 216059 279 279	Birth Transfer Transfer Release	L.green 279	HAVU	
614	M	15 May 2017	482	479	AHTARI FINLAND FINLAND	15 May 2017 12 Sep 2018 11 May 2019	217010 667	Birth Transfer Death	Orange 667	JUHA	
637	M	8 Jun 2017	567	485	HELSINKI AHTARI FINLAND FINLAND	8 Jun 2017 19 Apr 2018 6 Sep 2018 11 May 2019	217041 218003 059 059	Birth Transfer Transfer Release	L.yellow 059	JAKALA	934000011107155

TOTALS: 5.0 (5)

Compiled by: Leif Blomqvist thru Nordens Ark
 Data current thru: 1.1.2019 - European regional
 Printed on 11 Jun 2019 using Sparks v1.65

8.6. Historical listing of Forest reindeer kept in captivity 1973 - 1.1. 2019. Changes taking place after 1.1.2019 marked in red.

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder	
1	F	????	WILD	WILD	KUHMO	18 Mar 1973	NONE	Capture		210		
						HELSENKI	18 Mar 1973	730046	Transfer			
							21 Mar 1973		Death			
2	F	????	WILD	WILD	KUHMO	18 Mar 1973	NONE	Capture		209		
						HELSENKI	18 Mar 1973	730047	Transfer			
							2 Sep 1977		Death			
3	M	????	WILD	WILD	AMMANSAAR	17 Dec 1976	NONE	Capture				
						HELSENKI	17 Dec 1976	760040	Transfer			
							17 Jul 1981		Death			
4	F	????	WILD	WILD	SUOMUSSAL	21 Apr 1979	NONE	Capture				
						HELSENKI	21 Apr 1979	790076	Transfer			
							3 May 1979		Death			
5	F	????	WILD	WILD	FINLAND	13 Jan 1984	NONE	Capture		EMMI		
						AHTARI	13 Jan 1984	770001	Transfer			
						FINLAND	26 Jun 1991	EMMI	Release			
6	M	~ 1972	WILD	WILD	SUOMUSSAL	28 Jan 1976	NONE	Capture		PEKKA		
						HELSENKI	28 Jan 1976	760004	Transfer			
							5 Sep 1984		Death			
7	F	~ 1976	WILD	WILD	SUOMUSSAL	21 Apr 1979	NONE	Capture	GREEN 109	LOUHI	7F7F272E01	
						HELSENKI	21 Apr 1979	790015	Transfer			
							16 Aug 1991		Death			
8	F	~ 1978	WILD	WILD	KUHMO	4 Jan 1984	NONE	Capture		EMMA		
						AHTARI	4 Jan 1984	780001	Transfer			
							2 Sep 1986		Death			
9	M	~ 1979	WILD	WILD	FINLAND	29 Jan 1981	NONE	Capture	0101	EETU		
						AHTARI	29 Jan 1981	790001	Transfer			
						FINLAND	24 Apr 1990	0101	Release			
10	F	30 May 1980	6	7	HELSENKI	30 May 1980	800019	Birth		VIUHAHTAJA		
							10 Sep 1986		Death			
11	M	26 May 1981	6	7	HELSENKI	26 May 1981	810024	Birth				
							24 Apr 1983		Death			
12	M	30 May 1982	6	7	HELSENKI	30 May 1982	820028	Birth		VANTTU		
							26 Jan 1988		Death			
13	M	10 Jun 1982	6	10	HELSENKI	10 Jun 1982	820032	Birth	YEL 13	TOPPONEN		
							30 May 1988		Death			
14	F	25 May 1983	6	7	HELSENKI	25 May 1983	830035	Birth	GREEN 42	LIISA		
							14 Nov 1990		Death			
15	M	30 May 1983	6	10	HELSENKI	30 May 1983	830039	Birth				
						BORAS	29 Feb 1988		Transfer			
							21 Mar 1990		Death			
16	F	~ 1984	WILD	WILD	UNKNOWN	1 Mar 1987	NONE	Capture		VERUSKA		
						OULU UNIV	2 Mar 1987	VERUSK	Transfer			
						RANUA	1 Mar 1988	VERUSK	Transfer			
							1 Sep 1993		Death			
17	M	22 May 1984	9	8	AHTARI	22 May 1984	840003	Birth	HO725	EMPPU		
						FINLAND	3 May 1989	H0725	Release			
							6 Jun 1989	H0725	Capture			
						AHTARI	6 Jun 1989	840003	Transfer			
						FINLAND	19 Sep 1989	H0725	Release			
							26 Dec 1989	H0725	Capture			
						AHTARI	26 Dec 1989	840003	Transfer			
	30 Mar 1996		Death									
18	F	12 Jun 1984	6	7	HELSENKI	12 Jun 1984	840044	Birth	GREEN 110	MILKA	7F7F273043	
							13 Mar 1997		Death			
19	M	14 Jun 1984	6	10	HELSENKI	14 Jun 1984	840046	Birth	GREEN 5	RUDOLF		
						BORAS	29 Feb 1988	HR0001	Transfer			
							20 Jul 1993		Death			

20	F	~ 1985	WILD	WILD	KUHMO RANUA OULU UNIV	28 Mar 1987 28 Mar 1987 21 Nov 1994 1 Jan 1995	NONE 870002 NIINA	Capture Transfer Transfer Death	NIINA	7F7F266122	
21	M	27 May 1985	12	10	HELSINKI	27 May 1985 7 Nov 1990	850054	Birth Death	GREEN 4	TROLLE	
22	F	6 Jun 1985	9	8	AHTARI FINLAND	6 Jun 1985 6 May 1992	850002 LIINU	Birth Release		LIINU	
23	F	6 Jun 1985	9	5	AHTARI FINLAND	6 Jun 1985 6 May 1992	850003 LEENU	Birth Release		LEENU	
24	M	10 Jun 1985	12	14	HELSINKI	10 Jun 1985 5 Jun 1990	850081	Birth Death	GREEN 95	PEKKA II	
25	F	2 Jul 1985	12	7	HELSINKI	2 Jul 1985 10 Mar 1992	850072	Birth Death	GREEN 138	HELGA	
26	M	~ 1986	WILD	WILD	KUHMO RANUA OULU UNIV	28 Mar 1987 28 Mar 1987 27 Oct 1990 1 Jan 1991	NONE 870001 NESTOR	Capture Transfer Transfer Death		NESTORI	
27	F	11 May 1986	9	5	AHTARI FINLAND	11 May 1986 11 May 1993	860005 NAMU	Birth Release		NAMU	
28	F	20 May 1986	9	8	AHTARI FINLAND	20 May 1986 19 May 1988	860017 NEKKU	Birth Release		NEKKU	
29	M	23 May 1986	12	7	HELSINKI	23 May 1986 1 Jul 1986	860052	Birth Death			
30	M	25 May 1986	12	18	HELSINKI	25 May 1986 3 Jun 1986	860060	Birth Death			
31	M	28 May 1986	12	10	HELSINKI	28 May 1986 22 Jul 1986	860103	Birth Death			
32	M	20 May 1986	9	22	AHTARI FINLAND	20 May 1986 6 May 1992	860004	Birth Release			
33	M	9 Jun 1986	12	14	HELSINKI	9 Jun 1986 12 Jul 1986	860083	Birth Death			
34	M	22 May 1987	WILD	16	OULU UNIV RANUA	22 May 1987 18 May 1994 4 Jul 1994	OULULA 940001	Birth Transfer Death		OULULAINEN	
35	F	24 May 1987	12	7	HELSINKI BORAS	24 May 1987 29 Feb 1988 21 Jul 1996	870073 HR0002	Birth Transfer Death		VAJA	
36	M	27 May 1987	12	18	HELSINKI HUNBSTRND	27 May 1987 13 Dec 1989 10 Dec 1990	870074 890123	Birth Transfer Death	GREEN 55	VIMMEL	
37	M	28 May 1987	12	25	HELSINKI HUNBSTRND RANUA	28 May 1987 14 Dec 1989 16 Mar 1991 15 Oct 1993	870075 890112 910001	Birth Transfer Transfer Death	GREEN 56	RASKEN	
38	F	30 May 1987	26	20	RANUA	30 May 1987 5 Nov 2002	870003	Birth Death		NELLI	
39	F	20 May 1988	12	25	HELSINKI HUNBSTRND	20 May 1988 17 May 1989 28 Sep 1990	880026 890030	Birth Transfer Death	GREEN 79	ESTER	
40	M	27 May 1988	12	7	HELSINKI HUNBSTRND	27 May 1988 17 May 1989 16 Sep 1998	880033 890029	Birth Transfer Death	GREEN 78	RUDOLF	00-0015-C035
41	M	30 May 1988	12	18	HELSINKI	30 May 1988 1 Dec 1988	880034	Birth Death	GREEN 77		
42	M	18 Jun 1988	12	14	HELSINKI	18 Jun 1988 18 Jun 1988	880060	Birth Death			
43	F	16 May 1989	9	27	AHTARI	16 May 1989 18 Dec 2002	890001	Birth Death		MANTA	

44	F	18 May 1989	9	23	AHTARI FINLAND	18 May 1989 24 Apr 1990	890002 0264	Birth Release	0125		
45	F	19 May 1989	24	25	HELSINKI HUNBSTRND	19 May 1989 28 Feb 1992 30 Sep 1995	890040 920011	Birth Transfer Death	GREEN 96	BABA JAGA	00-0016-BFF6
46	F	21 May 1989	9	22	AHTARI FINLAND	21 May 1989 24 Apr 1990	890003 0264	Birth Release			
47	M	23 May 1989	24	18	HELSINKI	23 May 1989 29 May 1989	890041	Birth Death			
48	M	24 May 1989	24	7	HELSINKI HUNBSTRND	24 May 1989 30 Jan 1993 26 Dec 1994	890042 930005	Birth Transfer Death	GREEN 16	TORFUS	00-0011-3604
49	F	29 May 1989	24	14	HELSINKI HUNBSTRND	29 May 1989 14 Dec 1989 16 May 2001	890043 890113	Birth Transfer Death		ELSA	00-0026-9486
50	F	6 Jun 1989	26	20	RANUA OULU UNIV RANUA	6 Jun 1989 5 Dec 1989 1 Jan 1990	890001 NEITO	Birth Transfer Death		NEITO	
51	F	17 May 1990	21	7	HELSINKI	17 May 1990 10 Nov 2003	900039	Birth Death	LILA 12	POHJAN AKKA	00-00F602E7
52	F	18 May 1990	21	18	HELSINKI	18 May 1990 10 Nov 2003	900041	Birth Death	YELLOW 32	SAGA	0000111-B8D
53	M	19 May 1990	17	23	AHTARI HELSINKI	19 May 1990 10 Nov 1992 17 Nov 1997	900001 920194	Birth Transfer Death		MARA	
54	F	23 May 1990	9	27	AHTARI	23 May 1990 9 May 2001	900002	Birth Death	0018	INKA	
55	M	28 May 1990	21	14	HELSINKI	28 May 1990 15 Feb 1992	900044	Birth Death	GREEN 111	VAINO	
56	F	1 Jun 1990	21	25	HELSINKI HUNBSTRND	1 Jun 1990 20 Jun 1991 1 Jul 1991	900050 910102	Birth Transfer Death	GREEN 119	AINO	7F7F264E26
57	F	7 Jun 1990	9	5	AHTARI	7 Jun 1990 3 Aug 2004	900003	Birth Death	0023	IITU	
58	M	1 Jul 1990	40	39	HUNBSTRND BORAS	1 Jul 1990 22 Sep 1993 26 Sep 1993	900095 HR0006	Birth Transfer Death		RUTGER	00-000E-0776
59	F	3 Jul 1990	26	38	RANUA OULU UNIV	3 Jul 1990 27 Oct 1990 1 Jan 1991	900001 NUNNU	Birth Transfer Death		NUNNU	
60	M	18 May 1991	17	27	AHTARI FINLAND	18 May 1991 6 May 1992	910003 0044	Birth Release	0044	MOSSE	
61	F	22 May 1991	17	22	AHTARI FINLAND	22 May 1991 6 May 1992	910004 0045	Birth Release	0045	MIRKA	
62	?	24 May 1991	21	7	HELSINKI	24 May 1991 24 May 1991	910119	Birth Death			
63	M	26 May 1991	21	25	HELSINKI HUNBSTRND BORAS	26 May 1991 28 Feb 1992 8 Oct 1993 1 Aug 2000	910063 920010 HR0007	Birth Transfer Transfer Death		ISLAK	00-0015-80BA
64	M	26 May 1991	19	35	BORAS HUNBSTRND BORAS	26 May 1991 13 Nov 1992 4 Nov 1998 6 Sep 1999	HR0003 920167 HR0003	Birth Transfer Transfer Death		ROMEO	00-0013-7CDE
65	F	27 May 1991	17	5	AHTARI FINLAND	27 May 1991 26 Jun 1991	910005 0048	Birth Release	0048	MIRABELL	
66	F	5 Jun 1991	21	45	HELSINKI	5 Jun 1991 13 Apr 1999	910077	Birth Death	RED 23	ILONA	00-00F72B1B
67	F	10 Jun 1991	26	38	RANUA	10 Jun 1991 18 Sep 1999	910002	Birth Death		NASTA	

68	M	16 Jun 1991	21	18	HELSINKI HUNBSTRND BORAS	16 Jun 1991 28 Feb 1992 4 Nov 1998 6 Feb 1999	910094 920009 HR0008	Birth Transfer Transfer Death	RED/YELLOW	ILJA	00-0014-724F
69	M	23 May 1992	17	27	AHTARI	23 May 1992 2 Sep 1999	920002	Birth Death		MANU	
70	M	24 May 1992	19	35	BORAS HUNBSTRND	24 May 1992 22 Sep 1993 5 Oct 1998	HR0004 930182	Birth Transfer Death		VALLE	
71	M	25 May 1992	40	49	HUNBSTRND	25 May 1992 26 Aug 1992	920093	Birth Death			
72	F	25 May 1992	17	43	AHTARI FINLAND	25 May 1992 11 May 1993	920001 0085	Birth Release	0085	MIA	
73	F	29 May 1992	48	51	HELSINKI	29 May 1992 6 Oct 2001	920081	Birth Death	YEL 63	JULIA	00000D4B86
74	F	30 May 1992	48	18	HELSINKI HUNBSTRND	30 May 1992 30 Jan 1993 6 Aug 2003	920073 930006	Birth Transfer Death	GREEN 153	JENNY	00-0011-E54D
75	M	6 Jun 1992	48	52	HELSINKI TALLIN	6 Jun 1992 19 Dec 1996 30 Jan 1997	920082 12090	Birth Transfer Death	PINK 8	JANKA-JOONAS0000144FBE	
76	F	6 May 1993	40	49	HUNBSTRND	6 May 1993 29 Nov 2000	930026	Birth Death	RED 49/WHITEMARJA		0001E6F78A
77	M	15 May 1993	17	57	AHTARI	15 May 1993 17 May 1993	930006	Birth Death	0144		
78	F	18 May 1993	48	18	HELSINKI	18 May 1993 18 Nov 2003	930023	Birth Death	ORANGE 1	KLEO	0000F615CA
79	M	22 May 1993	48	52	HELSINKI TALLIN	22 May 1993 19 Dec 1996 8 Sep 1997	930031 12092	Birth Transfer Death	LILA 4	KLYYVARI	000097521A
80	F	24 May 1993	48	51	HELSINKI TALLIN	24 May 1993 19 Dec 1996 15 Oct 2004	930032 12091	Birth Transfer Death	LBLUE 4	KARPALO	0000F7BAF5
81	M	24 May 1993	19	35	BORAS HUNBSTRND	24 May 1993 15 Sep 1994 12 Nov 1997	HR0005 940207	Birth Transfer Death	94207	VILLE	00-000D-2487
82	M	31 May 1993	48	66	HELSINKI	31 May 1993 1 Jun 1993	930049	Birth Death			
83	F	12 May 1994	40	49	HUNBSTRND	12 May 1994 31 May 1994	940139	Birth Death			
84	F	17 May 1994	17	57	AHTARI RANUA	17 May 1994 17 Oct 1994 22 Oct 2003	940004 940002	Birth Transfer Death	0139	MAILA	
85	M	18 May 1994	40	45	HUNBSTRND	18 May 1994 9 Jun 1994	940140	Birth Death			
86	M	18 May 1994	17	54	AHTARI RANUA	18 May 1994 17 Oct 1994 28 Jan 2004	940005 940003	Birth Transfer Death	0140	EERIKKI	
87	F	19 May 1994	53	51	HELSINKI	19 May 1994 16 Dec 1996	940046	Birth Death		LAKKA	
88	F	20 May 1994	53	18	HELSINKI BORAS	20 May 1994 23 Mar 1999 11 May 2010	940050 HR0009	Birth Transfer Death	BLUE 5	LOITSU	0000F7719A
89	M	21 May 1994	17	43	AHTARI	21 May 1994 29 Sep 2000	940003	Birth Death	0141	KONSTA	
90	M	23 May 1994	53	52	HELSINKI	23 May 1994 6 Sep 1995	940054	Birth Death		LOIMU	
91	F	28 May 1994	53	66	HELSINKI HUNBSTRND	28 May 1994 9 Sep 1997 30 Oct 1999	940058 970223	Birth Transfer Death	RED 38	LYSTI	00-00F542CD

92	M	13 May 1995	40	49	HUNBSTRND BORAS	13 May 1995 24 Feb 1999 29 Oct 1999	950003 HR0011	Birth Transfer Death	ERKKI	00-0071-0447
93	M	14 May 1995	17	57	AHTARI	14 May 1995 3 Jun 1996	950005	Birth Death	0151 MAINI	
94	F	18 May 1995	53	51	HELSINKI HUNBSTRND	18 May 1995 9 Sep 1997 2 Sep 2009	950035 970224	Birth Transfer Death	D.BLUE/GREENMAGDALENA	00-00F5EDDD
95	F	18 May 1995	17	43	AHTARI	18 May 1995 14 Jun 1995	950006	Birth Death	0152	
96	F	21 May 1995	17	54	AHTARI	21 May 1995 3 Jun 1996	950007	Birth Death	MIMMI	
97	F	27 May 1995	53	52	HELSINKI	27 May 1995 6 Feb 2008	950036	Birth Death	L.BLUE 88 MIELIKKI	000061CCB8
98	F	14 May 1996	68	76	HUNBSTRND	14 May 1996 9 Oct 2000	960143	Birth Death	0136 YEL IRENE	
99	M	19 May 1996	68	74	HUNBSTRND	19 May 1996 20 May 1996	960147	Birth Death	0129	
100	M	20 May 1996	17	57	AHTARI	20 May 1996 30 Oct 1996	950008	Birth Death		
101	F	20 May 1996	69	54	AHTARI	20 May 1996 22 Oct 2010	960001	Birth Death	0169 JANIKA	
102	M	22 May 1996	53	73	HELSINKI HUNBSTRND BORAS LUND	22 May 1996 9 Sep 1997 27 Sep 2000 27 Jan 2004 19 May 2006	960060 970225 HR0012 NAUKKU	Birth Transfer Transfer Transfer Death	NAUKKU	00-0061CFF0
103	F	25 May 1996	53	80	HELSINKI BORAS ROTTERDAM	25 May 1996 23 Mar 1999 10 Dec 2010 18 Jul 2012	960061 HR0010 Z10056	Birth Transfer Transfer Death	NEONRED 24 NEITO	0000F76245
104	F	25 May 1996	53	66	HELSINKI RANUA	25 May 1996 27 Sep 2000 11 Dec 2008	960062 200059	Birth Transfer Death	PINK 49 NANNA	00-0096-3639
105	F	25 May 1996	86	38	RANUA HELSINKI HUNBSTRND	25 May 1996 14 Mar 1997 9 Sep 1997 9 Oct 1998	960002 970008 970226	Birth Transfer Transfer Death	PINK 48 MELLU	00-00F5C57B
106	F	1 Jun 1996	68	49	HUNBSTRND	1 Jun 1996 13 Jun 2001	960167	Birth Death	0140 BLUE RENEE	00-01BC-D40E
107	F	5 Jun 1996	86	67	RANUA HELSINKI	5 Jun 1996 14 Mar 1997 16 Nov 2005	960001 970009	Birth Transfer Death	BLACK 17 MANTA	00-00F61121
108	F	16 May 1997	68	49	HUNBSTRND	16 May 1997 1 Nov 2000	970023	Birth Death	SANDRA	
109	F	17 May 1997	68	76	HUNBSTRND	17 May 1997 29 May 1997	970024	Birth Death		
110	F	19 May 1997	68	74	HUNBSTRND	19 May 1997 28 May 1997	970025	Birth Death		
111	M	26 May 1997	53	52	HELSINKI OULU UNIV	26 May 1997 26 Mar 1999 15 Sep 2004	970045 111	Birth Transfer Death	RED ORM	00-0096-42EC
112	M	26 May 1997	53	78	HELSINKI OULU UNIV	26 May 1997 26 Mar 1999 10 Sep 2001	970046 112	Birth Transfer Death	PINK ONNI	00-00F7-1EAA
113	F	23 May 1997	53	73	HELSINKI	23 May 1997 31 May 2004	970047	Birth Death	BLUE 55 OKRA	00-00F6-0C17
114	F	23 May 1997	86	67	RANUA TALLIN	23 May 1997 13 Feb 1999 23 Mar 2001	970011 12905	Birth Transfer Death	RED 12 PEKKALA	

115	F	25 May 1997	86	38	RANUA TALLIN RIGA	25 May 1997 13 Feb 1999 17 May 2007 27 Mar 2013	970012 12906 970572	Birth Transfer Transfer Death	RED 13	RANUA	
116	M	20 May 1997	69	54	AHTARI BORAS HUNBSTRND	20 May 1997 16 Mar 2005 20 Sep 2006 17 Dec 2009	970003 HR0022 206057	Birth Transfer Transfer Death	0193	INTO	985120023495474
117	M	21 May 1997	69	43	AHTARI	21 May 1997 28 May 1997	970004	Birth Death			
118	F	23 May 1988	17	22	AHTARI	23 May 1988 3 May 1989	880006	Birth Death		PILLI	
119	M	16 May 1998	53	51	HELSINKI	16 May 1998 9 Nov 1998	980026	Birth Death			
120	F	30 May 1998	53	66	HELSINKI	30 May 1998 17 Jun 2008	980041	Birth Death	PINK 63	PETRA	000061D739
121	F	14 May 1998	68	106	HUNBSTRND	14 May 1998 1 Jun 1998	980130	Birth Death	ORANGE 15/ORRENATE		
122	F	16 May 1998	68	98	HUNBSTRND	16 May 1998 19 May 1998	980129	Birth Death		IRRA	
123	M	6 Jun 1998	69	57	AHTARI	6 Jun 1998 29 Dec 1998	980012	Birth Death		KEIRA	
124	M	6 Jun 1998	69	54	AHTARI	6 Jun 1998 25 Aug 2002	980001	Birth Death	244	KRISTOFER	
125	?	18 Jun 1998	69	101	AHTARI	18 Jun 1998 20 Jun 1998	980022	Birth Death			
126	?	12 Jul 1998	69	43	AHTARI	12 Jul 1998 15 Jul 1998	980023	Birth Death			
127	M	19 May 1998	68	74	HUNBSTRND	19 May 1998 12 Oct 2001	980206	Birth Death	ORANGE 18/D.JONNY		00-01E7-0947
128	M	29 Jun 1998	81	105	HUNBSTRND BORAS	29 Jun 1998 28 Jan 2004 9 Oct 2004	980205 HR0019	Birth Transfer Death	ORANGE 38/GRMELKER		977200004967746
129	M	15 May 1998	86	67	RANUA TALLIN	15 May 1998 13 Feb 1999 2 May 2000	980041 12904	Birth Transfer Death	YELLOW 16	JUSSI	
130	M	26 May 1999	102	94	HUNBSTRND	26 May 1999 28 May 1999	990114	Birth Death			
131	F	29 May 1999	92	74	HUNBSTRND	29 May 1999 22 Aug 2001	990115	Birth Death		JENNYFER	00-01BC-7245
132	M	31 May 1999	102	91	HUNBSTRND TALLIN	31 May 1999 8 Nov 2000 9 Sep 2002	990116 13601	Birth Transfer Death	GREEN 1/BROWLYCOS		00-01E7-078E
133	?	20 May 1999	69	54	AHTARI	20 May 1999 22 May 1999	990016	Birth Death			
134	?	7 Jun 1999	69	101	AHTARI	7 Jun 1999 20 Jun 1999	990017	Birth Death			
135	F	30 May 1987	9	5	AHTARI FINLAND	30 May 1987 3 May 1989	870001 OLGA	Birth Release		OLGA	
136	M	10 May 1999	86	67	RANUA BERN	10 May 1999 10 May 2002 2 Apr 2009	990004 A20080	Birth Transfer Death		LEIF	985100009850461
137	M	21 May 1999	86	84	RANUA HELSINKI	21 May 1999 9 Dec 1999 24 Sep 2007	990005 990117	Birth Transfer Death	RED 15	RUDOLPH	0001BCA7B4
138	F	15 May 1999	86	114	TALLIN	15 May 1999 15 May 1999	13020	Birth Death			
139	F	8 Jun 1999	86	115	TALLIN	8 Jun 1999 9 Jun 1999	13072	Birth Death			

140	F	17 May 2000	102	49	HUNBSTRND	17 May 2000 24 Aug 2000	200029	Birth Death		ELVIRA	
141	F	18 May 2000	102	106	HUNBSTRND	18 May 2000 10 Nov 2010	200030	Birth Death		RENATE	0604-4F13
142	M	24 May 2000	102	76	HUNBSTRND	24 May 2000 18 Oct 2000	200034	Birth Death		MARCUS	
143	F	25 May 2000	102	98	HUNBSTRND	25 May 2000 2 Sep 2009	200035	Birth Death		IRIS	
144	F	26 May 2000	102	108	HUNBSTRND	26 May 2000 18 Oct 2000	200044	Birth Death		SANDY	
145	F	28 May 2000	102	74	HUNBSTRND	28 May 2000 24 Aug 2011	200045	Birth Death		ROSA/YELLOW JENNICA	0604-FAC9
146	M	15 Jul 2000	102	94	HUNBSTRND JARVZOO	15 Jul 2000 9 Apr 2002 23 Sep 2007	200166 JZM02007	Birth Transfer Death		ROSA/WHITE MAGNUS	0604-3520
147	M	8 Jun 2000	129	80	TALLIN	8 Jun 2000 21 Aug 2002	13505	Birth Death			
148	M	11 Jun 2000	129	115	TALLIN	11 Jun 2000 30 Sep 2003	13514	Birth Death			
149	F	27 May 1988	17	23	AHTARI SIKOSUO	27 May 1988 3 May 1989	880004 PULLA	Birth Release		PULLA	
150	M	15 May 2000	89	54	AHTARI	15 May 2000 30 Jun 2000	200002	Birth Death			
151	F	29 May 2000	89	101	AHTARI	29 May 2000 22 Oct 2011	200003	Birth Death	0578	MAISA	
152	F	2 Jun 2000	89	43	AHTARI	2 Jun 2000 26 Aug 2010	200004	Birth Death	0577	JESSIKA	
153	F	20 May 2001	137	107	HELSINKI JARVZOO	20 May 2001 31 Jan 2002 22 Apr 2006	201011 JZM02001	Birth Transfer Death	RED 91	UMBRA	0001E6F431
154	F	24 May 2001	137	113	HELSINKI	24 May 2001 1 Sep 2001	201028	Birth Death		SINIKKA	
155	F	26 May 2001	137	120	HELSINKI JARVZOO	26 May 2001 31 Jan 2002 5 Aug 2002	201029 JZM02002	Birth Transfer Death	BLACK 80	SUSSU	000-1BF31AB
156	M	29 May 2001	137	97	HELSINKI JARVZOO LUND	29 May 2001 31 Jan 2002 18 Sep 2002 30 Jan 2004	201030 JZM02004 SULO	Birth Transfer Transfer Death	VIOLET 64	SULO	0001BCB555
157	F	30 May 2001	127	106	HUNBSTRND	30 May 2001 3 Jan 2012	201033	Birth Death		WHITE/WHITE REA	01B0-D2B9
158	F	31 May 2001	137	52	HELSINKI JARVZOO	31 May 2001 31 Jan 2002 6 Jan 2017	201040 JZM02003	Birth Transfer Death	NEONRED 25	URSULA	0001BF225B
159	M	9 Jun 2001	137	51	HELSINKI	9 Jun 2001 22 Jun 2001	201046	Birth Death			
160	?	11 Jun 2001	128	94	HUNBSTRND	11 Jun 2001 11 Jun 2001	201045	Birth Death			
161	M	25 Jun 2001	128	74	HUNBSTRND LUND	25 Jun 2001 25 Sep 2002 10 Feb 2004	201054 JERKER	Birth Transfer Death		WHITE/D.BLUEJERKER	00-01BC-BO74
162	M	25 May 2001	102	88	BORAS LUND	25 May 2001 25 Sep 2002 22 Jun 2003	HR0013 SVERKE	Birth Transfer Death		SVERKER	00-0605-D792
163	F	12 Jun 2001	102	103	BORAS	12 Jun 2001 13 Sep 2001	HR0014	Birth Death			
164	M	22 May 2001	86	38	RANUA BERN	22 May 2001 10 May 2002 27 Jan 2006	201016 A20081	Birth Transfer Death			985100009816554

165	?	27 May 2001	86	84	RANUA	27 May 2001 27 May 2001	201017	Birth Death			
166	F	8 Jul 2001	86	104	RANUA BERN	8 Jul 2001 10 May 2002 24 May 2009	201035 A20082	Birth Transfer Death	ELINA		968000003881410
167	F	14 Jun 1988	17	5	AHTARI SIKOSUO	14 Jun 1988 3 May 1989	880005 PALLI	Birth Release	PALLI		
168	M	12 May 2001	116	43	AHTARI JARVZOO LUND HUNBSTRND	12 May 2001 31 Jan 2002 18 Sep 2002 28 Jan 2004 18 Dec 2006	201007 JZM02005 SALO 204001	Birth Transfer Transfer Transfer Death	0580 SALO		08870692
169	M	20 May 2001	116	101	AHTARI JARVZOO LUND	20 May 2001 31 Jan 2002 18 Sep 2002 10 Jun 2003	201006 JZM02006 581	Birth Transfer Transfer Death	0581	SOLO	08870694
170	F	13 May 2001	124	57	AHTARI	13 May 2001 4 Aug 2001	201005	Birth Death	592	CAMILLA	
171	?	18 May 2000	86	38	RANUA	18 May 2000 18 May 2000	200033	Birth Death			
172	F	19 May 2000	86	84	RANUA	19 May 2000 14 Oct 2014	200034	Birth Death		MAIRE	
173	F	15 May 2002	137	107	HELSINKI	15 May 2002 25 Mar 2013	202073	Birth Death	RED 73	TAIKA	0001E6F6DB
174	M	22 May 2002	128	141	HUNBSTRND	22 May 2002 15 Jun 2002	202009	Birth Death	BLACK/WHITE		752098101088197
175	F	22 May 2002	128	141	HUNBSTRND	22 May 2002 22 May 2002	202010	Birth Death	BLACK/RED		7520998101083042
176	M	26 May 2002	128	145	HUNBSTRND ARNHEM ROTTERDAM ARNHEM	26 May 2002 25 Mar 2003 19 Jan 2004 1 Feb 2007 12 Oct 2012	202032 610676 106773 610676	Birth Transfer Transfer Transfer Death	BLACK/YELLOWJARI		752098101077544
177	M	30 May 2002	128	94	HUNBSTRND	30 May 2002 30 May 2002	202038	Birth Death			
178	M	24 May 2002	137	113	HELSINKI ARNHEM ROTTERDAM	24 May 2002 28 Mar 2003 23 Jan 2004 14 Mar 2006	202074 610667 106779	Birth Transfer Transfer Death	GREEN 75	TIETŽJŽ	967000000851297
179	F	27 May 2002	137	97	HELSINKI ARNHEM	27 May 2002 28 Mar 2003 21 May 2012	202077 610673	Birth Transfer Death	BLUE 99/66	TUULIKKI	0001E7053A
180	M	27 May 2002	137	51	HELSINKI ARNHEM	27 May 2002 28 Mar 2003 28 Mar 2003	202078 610674	Birth Transfer Death	YELLOW 28	TAPIO	0001BF2891
181	M	28 May 2002	137	52	HELSINKI ARNHEM	28 May 2002 28 Mar 2003 28 Mar 2003	202076 610672	Birth Transfer Death	RED 91	TIERA	0001BCDF6D
182	F	28 May 2002	137	120	HELSINKI ARNHEM	28 May 2002 28 Mar 2003 28 Mar 2003	202082 610675	Birth Transfer Death	GREEN 206	TAIJA	0001F68F9A
183	M	2 Jun 2002	137	78	HELSINKI	2 Jun 2002 2 Jun 2002	202083	Birth Death			
184	M	7 Jun 2002	128	143	HUNBSTRND ARNHEM ROTTERDAM KERKRADE	7 Jun 2002 24 Mar 2003 19 Jan 2004 2 Feb 2007 20 Nov 2008	202050 610677 106774 M02007	Birth Transfer Transfer Transfer Death	BLACK/L.GREENELIS		752098101092814
185	M	16 Jun 2002	128	74	HUNBSTRND ARNHEM ROTTERDAM	16 Jun 2002 24 Mar 2003 19 Jan 2004 23 Feb 2007	202066 610678 106775	Birth Transfer Transfer Death	BLACK/L.BLUEJORMA		752098101087579

186	?	17 May 2002	86	84	RANUA	17 May 2002 17 May 2002	202040	Birth Death			
187	M	2 Jun 2002	86	38	RANUA ARNHEM ROTTERDAM	2 Jun 2002 28 Mar 2003 1 Feb 2007 30 Nov 2016	202039 610664 107590	Birth Transfer Transfer Death	89 RED	PUMMEL	985120015276514
188	M	8 Jun 2002	86	172	RANUA	8 Jun 2002 9 Jun 2002	202042	Birth Death			
189	M	15 Jun 2002	86	104	RANUA ARNHEM ROTTERDAM	15 Jun 2002 28 Mar 2003 23 Jan 2004 8 Apr 2009	202041 610666 106778	Birth Transfer Transfer Death	67 BLUE		985120016278390
190	F	17 May 2002	124	43	AHTARI	17 May 2002 29 May 2005	202002	Birth Death	0600 lilac	METTE	
191	F	29 May 2002	116	101	AHTARI ARNHEM	29 May 2002 28 Mar 2003 11 May 2003	202004 610665	Birth Transfer Death	0203	JENNI	985100010398311
192	F	30 May 2002	124	151	AHTARI	30 May 2002 18 Dec 2002	202003	Birth Death		MIISA	
193	M	24 May 2002	116	152	AHTARI ARNHEM ROTTERDAM EUROPA HANSURLES	24 May 2002 28 Mar 2003 23 Jan 2004 17 Oct 2005 8 Apr 2008 4 May 2008	202005 610668 106780 M02001	Birth Transfer Transfer Transfer Transfer Death	WHITE 101	JESSE	985100010239300
194	M	21 May 2002	102	103	BORAS	21 May 2002 22 May 2002	HR0015	Birth Death			
195	M	16 Jun 2002	102	88	BORAS LUND	16 Jun 2002 10 Oct 2003 12 Oct 2003	HR0016	Birth Transfer Death			0001747623
196	M	5 Jun 2002	132	80	TALLIN	5 Jun 2002 10 Sep 2005	14290	Birth Death			
197	M	25 Jun 2002	132	115	TALLIN	25 Jun 2002 27 Sep 2002	14301	Birth Death			
198	F	16 May 2003	137	107	HELSINKI ARNHEM	16 May 2003 27 Feb 2004 15 Jun 2016	203032 611546	Birth Transfer Death	GREEN 214	UTU	0001D368D5
199	M	23 May 2003	137	113	HELSINKI HILVARENB EUROPA KERKRADE EUROPA HANSURLES	23 May 2003 1 Mar 2004 1 Oct 2004 18 Jan 2005 24 Jan 2007 8 Apr 2008 7 Jun 2008	203046 ME0329 M03112 M03014 M03112	Birth Transfer Transfer Transfer Transfer Transfer Death	WHITE 25	HUNK	0001D22E59
200	F	25 May 2003	137	51	HELSINKI	25 May 2003 20 May 2016	203048	Birth Death	YELLOW 38	USVA	00012A206C
201	F	27 May 2003	137	97	HELSINKI ARNHEM	27 May 2003 27 Feb 2004 3 Jun 2005	203049 611545	Birth Transfer Death	NEON RED 60	UNNE	000135BC8B
202	F	30 May 2003	137	52	HELSINKI ARNHEM	30 May 2003 27 Feb 2004 1 Oct 2014	203052 611547	Birth Transfer Death	RED 81	UMUR	0001D24003
203	?	30 May 2003	137	52	HELSINKI	30 May 2003 30 May 2003	203053	Birth Death			
204	F	20 May 2003	102	88	BORAS	20 May 2003 25 May 2008	HR0017	Birth Death		VIRPI	
205	M	27 May 2003	102	103	BORAS	27 May 2003 11 Sep 2003	HR0018	Birth Death			
206	F	21 May 2003	116	152	AHTARI ARNHEM KERKRADE	21 May 2003 27 Feb 2004 18 Jan 2005 12 Feb 2017	203006 611548 M03015	Birth Transfer Transfer Death	0479 RED	JENNA	985120015197951

207	M	22 May 2003	116	57	AHTARI BORAS	22 May 2003 16 Mar 2005 29 Aug 2008	203003 HR0021	Birth Transfer Death	0211 GREEN ISAK	985120015218902
208	F	29 May 2003	116	101	AHTARI ARNHEM KERKRADE	29 May 2003 27 Feb 2004 18 Jan 2005 19 Apr 2015	203005 611549 M03016	Birth Transfer Transfer Death	0002 YELLOW JANE	985120016136297
209	M	26 May 2003	128	157	HUNBSTRND	26 May 2003 21 Jul 2003	203070	Birth Death	RED/WHITE REIDAR	752098101095335
210	F	30 May 2003	128	141	HUNBSTRND ARNHEM	30 May 2003 6 Mar 2004 6 Apr 2011	203027 611564	Birth Transfer Death	RED/PINK NIVALA	752098101086067
211	M	31 May 2003	128	74	HUNBSTRND	31 May 2003 10 Jun 2003	203028	Birth Death	RED/L.BLUE JENS	752098101086563
212	M	2 Jun 2003	128	145	HUNBSTRND	2 Jun 2003 12 Jul 2003	203029	Birth Death	RED/YELLOW JOKER	752098101084715
213	M	11 Jun 2003	128	143	HUNBSTRND HILVARENB EUROPA	11 Jun 2003 6 Mar 2004 1 Oct 2004 11 Oct 2007	203037 ME0330 M03111	Birth Transfer Transfer Death	RED/RED ISTVAN	752098101085380
214	M	30 Jun 2003	116	151	AHTARI HILVARENB EUROPA	30 Jun 2003 1 Mar 2004 1 Oct 2004 17 Oct 2006	203004 ME0331 M03110	Birth Transfer Transfer Death	BLACK 269 KNACKEBROT	985120016279643
215	F	20 Jun 2003	128	94	HUNBSTRND	20 Jun 2003 20 Jun 2003	203047	Birth Death		
216	M	1 Jul 2003	164	166	BERN	1 Jul 2003 3 Jul 2003	A30212	Birth Death		
217	M	10 May 2003	86	104	RANUA	10 May 2003 4 Oct 2005	203066	Birth Death	JUIPPI	
218	F	17 May 2003	146	153	JARVZOO LYCKSELE	17 May 2003 22 Feb 2005 1 Dec 2007	JZM03010 LRTS0301	Birth Transfer Death	L.BLUE 003 YSTER	
219	M	28 May 2003	146	158	JARVZOO RIGA	28 May 2003 10 Feb 2005 9 Jun 2014	JZM03012 O30405	Birth Transfer Death	L.BLUE 005 YODA-LACIS	000604EDDS
220	F	29 May 2003	148	80	TALLIN RIGA	29 May 2003 17 May 2007 17 Jul 2013	14697 O30511	Birth Transfer Death	KAJA	
221	F	8 Jun 2003	148	115	TALLIN	8 Jun 2003 15 Jun 2003	14859	Birth Death		
222	M	~May 2003film	WILD	WILD	PALTAMO AHTARI	9 Mar 2004 9 Mar 2004 3 Jun 2004	NONE 203018	Capture Transfer Death	108 WHITE SAULI	985120019073612
223	M	~May 2003film	WILD	WILD	PALTAMO AHTARI	9 Mar 2004 9 Mar 2004 30 Sep 2015	NONE 203019	Capture Transfer Death	500 RED JARI	985120019072448
224	M	13 May 2004	128	157	HUNBSTRND	13 May 2004 24 May 2004	204013	Birth Death	L.BLUE/WHITE	977200005025130
225	M	16 May 2004	137	107	HELSINKI RIGA	16 May 2004 18 Mar 2005 18 May 2008	204036 O40407	Birth Transfer Death	YELLOW 40 MAINENENS	968000002535494
226	M	23 May 2004	137	113	HELSINKI	23 May 2004 31 May 2004	204042	Birth Death		
227	F	25 May 2004	86	104	RANUA	25 May 2004 17 Feb 2016	204040	Birth Death	BLUE 66 MIINA	985120021312576
228	M	29 May 2004	137	97	HELSINKI RANUA	29 May 2004 15 Oct 2005 17 Oct 2011	204045 205078	Birth Transfer Death	PINK 118 VISA	968000002716565
229	F	30 May 2004	137	173	HELSINKI	30 May 2004 1 Jun 2004	204046	Birth Death		

230	F	21 May 2004	128	141	HUNBSTRND	21 May 2004 11 Jun 2004	204023	Birth Death	L.BLUE/PINK RISTI	977200004970373
231	M	22 May 2004	128	145	HUNBSTRND RIGA	22 May 2004 10 Feb 2005 30 Apr 2008	204024 040404	Birth Transfer Death	L.BLUE/YELLOJURMO	977200004947072
232	M	10 Jun 2004	137	120	HELSINKI	10 Jun 2004 11 Jun 2004	204077	Birth Death		
233	F	21 May 2004	102	88	BORAS	21 May 2004 18 Oct 2004	HR0020	Birth Death	VANJA	
234	F	22 May 2004	136	166	BERN	22 May 2004 30 May 2004	A40103	Birth Death		00060D81AA
235	F	17 May 2004	116	152	AHTARI	17 May 2004 22 Oct 2011	204002	Birth Death	YELLOW 013 SORJA	
236	F	24 May 2004	116	101	AHTARI	24 May 2004 19 Jun 2004	204003	Birth Death	486 RED NUPPU	
237	F	2 Jun 2004	116	151	AHTARI	2 Jun 2004 22 Oct 2011	204001	Birth Death	RED 489 SIRU	985120023309778
238	M	11 May 2004	146	153	JARVZOO RIGA	11 May 2004 10 Feb 2005 4 Jun 2008	JZM04013 O40399	Birth Transfer Death	011 SUDRABS	000602E977
239	M	18 May 2004	146	158	JARVZOO RIGA	18 May 2004 10 Feb 2005 11 Nov 2008	JZM04014 O40402	Birth Transfer Death	012 BRALIS	00060429C8
240	M	5 Jun 2004	128	143	HUNBSTRND LYCKSELE	5 Jun 2004 1 Mar 2005 28 Aug 2012	204068 LRTS0401	Birth Transfer Death	L.BLUE/L.BLUESEA	977200005082706
241	M	1 Jun 2004	86	172	RANUA	1 Jun 2004 4 Oct 2005	204066	Birth Death	RED 16 MANU	985120022009081
242	F	22 May 2005	136	166	BERN	22 May 2005 4 Jun 2005	A50114	Birth Death		
243	M	25 Apr 2005	116	101	AHTARI KINGUSSIE	25 Apr 2005 22 Apr 2006 28 Jul 2007	205003 4973	Birth Transfer Death	RED 492 JAKKE	985120022248681
244	M	26 May 2005	137	120	HELSINKI KINGUSSIE	26 May 2005 22 Apr 2006 13 Feb 2009	205034 4974	Birth Transfer Death	RED 88 XULKA	968000002694098
245	F	20 May 2005	168	145	HUNBSTRND BERN	20 May 2005 27 Apr 2006 18 May 2009	205021 A60062	Birth Transfer Death	YELLOW/YELLOJUNNI	977200004103900
246	M	24 May 2005	168	141	HUNBSTRND KINGUSSIE	24 May 2005 22 Apr 2006 31 Jul 2007	205022 4976	Birth Transfer Death	L.BLUE/L.BLURAJMO	977200004981751
247	M	29 May 2005	137	97	HELSINKI KINGUSSIE	29 May 2005 22 Apr 2006 29 Nov 2015	205038 4975	Birth Transfer Death	GREEN 299 XEPPU	968000002711093
248	M	30 May 2005	137	107	HELSINKI TALLIN	30 May 2005 28 Apr 2006 26 Aug 2006	205039 16099	Birth Transfer Death	L.BLUE 79 XAMPO	968000002716970
249	M	1 Jun 2005	137	200	HELSINKI	1 Jun 2005 3 Jun 2005	205041	Birth Death		
250	F	16 May 2005	146	158	JARVZOO LYCKSELE	16 May 2005 23 Oct 2005 14 Nov 2005	JZM05009 LRTS0502	Birth Transfer Death	DOLLY	
251	M	9 Jun 2005	146	153	JARVZOO	9 Jun 2005 19 Sep 2007	JZM05010	Birth Death	LIGHT BLUE LBORE	
252	F	26 May 2005	116	151	AHTARI	26 May 2005 11 Jun 2005	205004	Birth Death	WHITE 113 URHO	
253	F	1 Jun 2005	116	152	AHTARI	1 Jun 2005 19 Sep 2012	205005	Birth Death	ORANGE 601 JAANA	

254	M	27 May 2005	187	179	ARNHEM	27 May 2005	612637	Birth		BJORN	000618C2E3
					EUROPA	21 Dec 2005	M05012	Transfer			
					HANSURLES	8 Apr 2008		Transfer			
						13 Oct 2008		Death			
255	M	28 May 2005	187	202	ARNHEM	28 May 2005	612638	Birth	GREEN	BORG	00061C323F
					EUROPA	21 Dec 2005	M05013	Transfer			
					HANSURLES	8 Apr 2008		Transfer			
						12 May 2008		Death			
256	F	2 Jun 2005	187	201	ARNHEM	2 Jun 2005	612644	Birth			
						2 Jun 2005		Death			
257	M	5 May 2005	146	218	LYCKSELE	5 May 2005	LRTS0501	Birth		DALLE	
						22 Jan 2007		Death			
258	F	20 May 2006	137	173	HELSINKI	20 May 2006	206031	Birth	VIOLET 92	YNNI	968000004171702
					BERN	22 Mar 2007	A70028	Transfer			
						22 Aug 2008		Death			
259	F	19 May 2006	168	145	HUNBSTRND	19 May 2006	206014	Birth	YELLOW/YELLOJORUN		977200004154602
						27 Oct 2016		Death			
260	F	23 May 2006	168	141	HUNBSTRND	23 May 2006	206017	Birth	RED/RED	RAUNI	977200004131838
					BORAS	18 Apr 2007	HR0026	Transfer			
						18 Sep 2008		Death			
261	F	24 May 2006	168	157	HUNBSTRND	24 May 2006	206018	Birth	GREEN/GREEN	MIKAELA	977200004210694
					JARVZOO	14 May 2007	JZM07031	Transfer			
						3 Oct 2019		Death			
262	F	26 May 2006	137	97	HELSINKI	26 May 2006	206040	Birth		YLLIKKI	
						6 Aug 2007		Death			
263	M	27 May 2006	137	200	HELSINKI	27 May 2006	206042	Birth	GREEN 220	YLERMI	968000004142934
					KINGUSSIE	7 Apr 2007	5105	Transfer			
						17 Jul 2007		Death			
264	F	28 May 2006	137	120	HELSINKI	28 May 2006	206043	Birth	LIGHT BLUE	9YYLI	968000004143265
					BERN	22 Mar 2007	A70029	Transfer			
265	F	22 May 2006	136	166	BERN	22 May 2006	A60137	Birth	GREEN 050	TINA	968000004444253
					KERKRADE	3 Sep 2007	M06111	Transfer			
						2 Sep 2016		Death			
266	M	2 Jun 2006	207	204	BORAS	2 Jun 2006	HR0023	Birth		CIRIUS	968000000272488
					JARVZOO	23 Jan 2008	JZM08004	Transfer			
						18 Sep 2019		Death			
267	F	22 May 2006	223	101	AHTARI	22 May 2006	206010	Birth	213 GREEN	JASSU	985120028553783
					KERKRADE	20 Apr 2007	M06024	Transfer			
						17 Jul 2019		Death			
268	M	23 May 2006	223	151	AHTARI	23 May 2006	206008	Birth	526 GREEN	LUKAS	985120029034388
					KINGUSSIE	7 Apr 2007	5104	Transfer			
						8 May 2007		Death			
269	M	26 May 2006	223	237	AHTARI	26 May 2006	206009	Birth	212 GREEN	ILKKA	985120028918205
					KINGUSSIE	7 Apr 2007	5103	Transfer			
						30 Apr 2007		Death			
270	M	31 May 2006	223	152	AHTARI	31 May 2006	206006	Birth	GREEN 94	JOPPE	985120027711043
					HELSINKI	30 Oct 2007	207120	Transfer			
						30 Oct 2015		Death			
271	F	2 Jun 2006	223	235	AHTARI	2 Jun 2006	206011	Birth	529 VIOLET	SIIRI	985120028924974
					KERKRADE	20 Apr 2007	M06025	Transfer			
						27 Jun 2014		Death			
272	M	10 Jun 2006	187	202	ARNHEM	10 Jun 2006	613305	Birth		REND	00061BD1B3
					ROTTERDAM	1 Feb 2007	107591	Transfer			
					MAGDEBURG	20 Oct 2011	443021	Transfer			
						3 Nov 2016		Death			
273	M	12 Jun 2006	187	179	ARNHEM	12 Jun 2006	613306	Birth			0006654F2D
					ROTTERDAM	1 Feb 2007	107592	Transfer			
					MAGDEBURG	20 Oct 2011	443022	Transfer			
						2 Sep 2017		Death			
274	M	14 Jun 2006	207	88	BORAS	14 Jun 2006	HR0024	Birth		LAURI	968000000290542
						31 Jan 2008		Death			
275	M	2 Jul 2006	207	103	BORAS	2 Jul 2006	HR0025	Birth		PATTI	968000003001057
						26 Jun 2007		Death			

276	M	19 May 2006	146	158	JARVZOO	19 May 2006 27 Mar 2007	JZM06005	Birth Death	LIGHT BLUE 2CASPER	
277	M	28 Apr 2006	240	218	LYCKSELE	28 Apr 2006 4 Nov 2009	LRTS0601	Birth Death		MOJELS
278	F	15 May 2007	116	157	HUNBSTRND LYCKSELE	15 May 2007 5 Feb 2008	207020 LRTS0701	Birth Transfer	GREEN/GREEN	RANJA 977200004321311
279	F	20 May 2007	116	141	HUNBSTRND LYCKSELE	20 May 2007 5 Feb 2008 7 Jun 2017	207024 LRTS0702	Birth Transfer Death	RED/RED	NUMMI 977200004332858
280	F	23 May 2007	116	145	HUNBSTRND JARVZOO	23 May 2007 5 Feb 2008 5 Oct 2014	207025 JZM08005	Birth Transfer Death	L.BLUE/L.BLUDALIA	977200004185651
281	M	12 May 2007	146	158	JARVZOO BORAS	12 May 2007 19 May 2009 19 May 2009	JZM07008 HR0033	Birth Transfer Death	0023	DINKEL
282	M	24 May 2007	137	120	HELSINKI KINGUSSIE	24 May 2007 11 Mar 2008 11 Mar 2008	207060 5232	Birth Transfer Death		ZAKARIAS
283	F	25 May 2007	137	173	HELSINKI	25 May 2007 18 Feb 2008	207061	Birth Death		ZAANA
284	F	17 May 2007	136	245	BERN	17 May 2007 21 Jul 2017	A70066	Birth Death		TULA 968000004442600
285	F	25 May 2007	136	166	BERN	25 May 2007 25 May 2007	A70086	Birth Death		
286	M	5 Jun 2007	116	143	HUNBSTRND	5 Jun 2007 21 Nov 2007	207045	Birth Death	GREEN/GREEN	ISO 977200004307636
287	M	29 May 2007	207	103	BORAS	29 May 2007 22 May 2009	HR0027	Birth Death		UKKO 968000000320150
288	F	27 May 2007	137	200	HELSINKI	27 May 2007 3 Jun 2014	207068	Birth Death	BLUE 537	ZEITA 968000000263522
289	F	28 May 2007	137	97	HELSINKI	28 May 2007 6 Feb 2008	207069	Birth Death		ZENJA
290	M	7 Jun 2007	207	204	BORAS	7 Jun 2007 14 Jun 2007	HR0028	Birth Death		PEKKA 968000000321315
291	M	19 Jun 2007	207	88	BORAS	19 Jun 2007 18 Jul 2007	HR0029	Birth Death		JARI 968000000305707
292	F	25 May 2007	228	172	RANUA KINGUSSIE	25 May 2007 4 Apr 2008 20 Apr 2008	207027 5278	Birth Transfer Death	PURPLE 47	MAIJA 985161000493581
293	F	26 May 2007	228	104	RANUA KINGUSSIE	26 May 2007 4 Apr 2008 16 Sep 2008	207028 5276	Birth Transfer Death	PINK 75	METTE 985161000681462
294	F	31 May 2007	228	227	RANUA KINGUSSIE	31 May 2007 4 Apr 2008 9 Jan 2017	207030 5279	Birth Transfer Death	PURPLE 047	MAIJA 985120032351791
295	M	15 May 2007	223	152	AHTARI KINGUSSIE	15 May 2007 4 Apr 2008 28 Sep 2014	207001 5274	Birth Transfer Death	123 WHITE	LENNI 246098100187884
296	F	18 May 2007	223	101	AHTARI KINGUSSIE	18 May 2007 4 Apr 2008 18 Sep 2008	207002 5277	Birth Transfer Death	125 WHITE	LUMI 246098100192818
297	M	21 May 2007	223	237	AHTARI KINGUSSIE	21 May 2007 4 Apr 2008 13 Jun 2008	207003 5275	Birth Transfer Death	550 LILAC	LEXA 246098100191688
298	F	25 May 2007	223	235	AHTARI RIGA	25 May 2007 24 Apr 2008	207004 M07219	Birth Transfer	536 LILAC	LIME 246098100189586
299	F	26 May 2007	223	151	AHTARI KINGUSSIE	26 May 2007 4 Apr 2008 9 Sep 2016	207005 5280	Birth Transfer Death	BLACK 256	LOLA 246098100189980

300	M	15 May 2007	187	202	ARNHEM KINGUSSIE	15 May 2007 14 Mar 2008 15 Aug 2009	613836 5254	Birth Transfer Death	GREEN 558	HAKAN	000680D54B
301	M	17 May 2007	187	179	ARNHEM KINGUSSIE	17 May 2007 14 Mar 2008 28 Nov 2013	613841 5255	Birth Transfer Death	GREEN 559	MARTEN	826098101332516
302	F	15 May 1993	17	43	AHTARI	15 May 1993 10 Oct 1994	930018	Birth Death			
303	F	21 May 1993	17	54	AHTARI FINLAND	21 May 1993 11 May 1995	930019 NONE	Birth Release		MILLA	
304	M	20 May 2007	199	208	KERKRADE KINGUSSIE	20 May 2007 14 Mar 2008 25 Sep 2008	M07042 5253	Birth Transfer Death	003	LOEKIE	826098101334122
305	M	17 May 2007	240	218	LYCKSELE BORAS	17 May 2007 7 Oct 2009 6 Nov 2009	LRTS0703 HR0034	Birth Transfer Death		MOJJE	96800003396259
306	F	3 Jun 2007	223	253	AHTARI	3 Jun 2007 4 Jun 2007	207009	Birth Death		MUSTIKKA	
307	F	19 May 2008	116	157	HUNBSTRND	19 May 2008 21 Feb 2018	208031	Birth Death	VIOLET/VIOLEERAJA		977200007078792
308	F	20 May 2008	116	259	HUNBSTRND	20 May 2008 23 Jun 2008	208032	Birth Death	D.BLUE/D.BLUJAANA		977200007082169
309	F	26 May 2008	116	145	HUNBSTRND BORAS	26 May 2008 12 May 2010 27 May 2010	208033 HR0035	Birth Transfer Death	WHITE&WHITE	JUULIA	977200007074513
310	F	29 May 2008	116	141	HUNBSTRND	29 May 2008 16 Jun 2008	208057	Birth Death	RED/RED	RAILI	977200007091808
311	M	8 Jun 2008	270	200	HELSINKI BERN	8 Jun 2008 16 Nov 2009 27 Nov 2019	208039 A90261	Birth Transfer Death	PINK 193	AHTI	96800000397344
312	F	19 Jun 2008	270	173	HELSINKI	19 Jun 2008 17 Dec 2010	208041	Birth Death		AINO	
313	F	19 Jun 2008	136	264	BERN	19 Jun 2008 15 Jul 2010	A80154	Birth Death		SATU	96800003877957
314	M	7 May 2008	176	198	ARNHEM KERKRADE ROTTERDAM MAGDEBURG BERLINZOO HANSURLES	7 May 2008 12 Mar 2009 9 Feb 2010 20 Oct 2011 7 Feb 2013 10 Oct 2018 11 Sep 2019	614626 M08017 107965 443023 M0800020 GR333	Birth Transfer Transfer Transfer Transfer Transfer Death		RINUS	000680B219
315	F	17 May 2008	176	210	ARNHEM BERLIN TP BERLINZOO PLOCK	17 May 2008 3 Feb 2010 24 Mar 2010 20 Oct 2015 13 Aug 2016	614684 M0800018 A20536	Birth Transfer Transfer Transfer Death		BESTIE	0006809CDF
316	M	22 May 2008	176	179	ARNHEM KERKRADE	22 May 2008 12 Mar 2009 19 Nov 2013	614694 M08016	Birth Transfer Death		GAIA 11	000680A173
317	F	23 May 2008	184	206	KERKRADE	23 May 2008	M08037	Birth	BROWN/BLACK	GAIA 9	0006B8A44E
318	M	25 May 2008	184	271	KERKRADE	25 May 2008 26 May 2008	M08039	Birth Death			
319	M	20 May 2008	228	104	RANUA	20 May 2008 22 Apr 2009	208017	Birth Death	PURPLE	MANE	
320	F	22 May 2008	228	227	RANUA MOSCOW	22 May 2008 16 Dec 2011 19 Dec 2011	208018 110665	Birth Transfer Death	PINK 76	MIMMU	985170000345666
321	M	22 May 2008	228	172	RANUA	22 May 2008 31 Aug 2011	208019	Birth Death	L.BLUE 61	MAURI	985141000521628
322	F	16 May 2008	219	115	RIGA BERLIN TP BERLINZOO	16 May 2008 26 Feb 2010 24 Mar 2010	M08137 M0800019	Birth Transfer Transfer		RAGNA	428098100000223

323	F	16 May 2008	219	220	RIGA	16 May 2008 18 May 2008	M08140	Birth Death			
324	F	7 May 2008	223	152	AHTARI	7 May 2008 2 Mar 2017	208007	Birth Death	WHITE 178	VIOLA	985121005529830
325	F	15 May 2008	223	101	AHTARI MOSCOW	15 May 2008 16 Dec 2011	208008 110669	Birth Transfer	WHITE 184	REBEKKA	985121005406388
326	M	18 May 2008	223	235	AHTARI	18 May 2008 23 Jun 2008	208009	Birth Death			
327	M	18 May 2008	223	151	AHTARI	18 May 2008 19 May 2008	208011	Birth Death			
328	M	21 May 2008	223	253	AHTARI	21 May 2008 9 Jun 2008	208010	Birth Death		JASPER	
329	F	13 Jun 2008	223	237	AHTARI	13 Jun 2008 14 Jun 2008	208012	Birth Death			
330	M	25 May 2008	207	88	BORAS HUNBSTRND	25 May 2008 13 May 2009 8 Sep 2016	HR0030 209007	Birth Transfer Death		SATO	968000000295051
331	M	26 May 2008	207	103	BORAS	26 May 2008 20 Aug 2008	HR0031	Birth Death		PAAVO	968000000282531
332	F	31 May 2008	207	260	BORAS ROTTERDAM	31 May 2008 10 Dec 2010 14 Nov 2017	HR0032 Z10057	Birth Transfer Death		KAARINA	968000000264431
333	M	19 May 2009	116	259	HUNBSTRND BORAS	19 May 2009 12 May 2010 7 Jul 2010	209008 HR0036	Birth Transfer Death	YELLOW/YELLOJARMO		977200007249951
334	M	22 May 2009	270	173	HELSINKI	22 May 2009 9 Sep 2011	209019	Birth Death	LIGHT RED 12BIRKA		956000001960080
335	M	9 May 2009	223	152	AHTARI	9 May 2009 16 Mar 2012	209004	Birth Death	344 BLUE	JUSTUS	
336	M	13 May 2009	223	101	AHTARI RANUA	13 May 2009 5 May 2011 7 May 2011	209005 211003	Birth Transfer Death	534 LILAC	NIKLAS	985170000956519
337	M	17 May 2009	223	235	AHTARI KERKRADE ARNHEM	17 May 2009 5 Nov 2013 14 Dec 2016	209006 M09200 7382	Birth Transfer Transfer	258 BLACK	JOHAN	985170002298737
338	F	19 May 2009	223	253	AHTARI MOSCOW	19 May 2009 16 Dec 2011	209007 110671	Birth Transfer	LILIAN 547	NEELA	
339	F	21 May 2009	223	151	AHTARI MOSCOW	21 May 2009 16 Dec 2011 21 Mar 2016	209008 110672	Birth Transfer Death	ORANGE/YELLOMAIKKI		
340	M	22 May 2009	116	157	HUNBSTRND	22 May 2009 10 Nov 2010	209018	Birth Death	WHITE/WHITE ROOPE		977200007248398
341	F	26 May 2009	116	141	HUNBSTRND BORAS ROTTERDAM	26 May 2009 12 May 2010 10 Dec 2010	209021 HR0037 Z10058	Birth Transfer Transfer	RED/RED	RITA	977200007250298
342	F	28 May 2009	116	145	HUNBSTRND	28 May 2009 9 Jun 2009	209022	Birth Death	ORANGE/ORANGJUVA		977200007247072
343	F	16 May 2009	219	220	RIGA BERLIN TP BERLINZOO	16 May 2009 26 Feb 2010 24 Mar 2010	M09070 M090027	Birth Transfer Transfer		SOCKE	428098100000125
344	F	19 May 2009	219	115	RIGA	19 May 2009 8 Jul 2009	M09071	Birth Death			428098100000001
345	M	20 May 2009	219	298	RIGA	20 May 2009 13 Sep 2014	M09072	Birth Death		LAIMESLACIS	428098100000063
346	F	10 May 2009	266	261	JARVZOO ALM N	10 May 2009 16 May 2011	JZM09008 FINA	Birth lft		FINA	
347	M	18 May 2009	266	158	JARVZOO ALM N	18 May 2009 5 Apr 2011 11 May 2012	JZM09009 FREJ	Birth Transfer Death	L.BLUE 034	FREJ	

348	M	24 May 2009	266	280	JARVZOO ALM N	24 May 2009 5 Apr 2011 19 Jul 2011	JZM09010 FIGARO	Birth Transfer Death	L.BLUE 035	FIGARO	
349	F	6 May 2009	240	278	LYCKSELE	6 May 2009 31 Oct 2017	LRTS0901	Birth Death		ESTER	968000003415351
350	F	15 Jun 2009	240	279	LYCKSELE JARVZOO	15 Jun 2009 22 Nov 2011	LRTS0902 JZM11029	Birth Transfer	Purple	FLORA	968000004367726
351	F	14 Jun 2009	247	294	KINGUSSIE	14 Jun 2009 21 Jun 2009	5402	Birth Death			
352	M	20 May 2009	228	172	RANUA	20 May 2009 31 Aug 2011	209020	Birth Death		MAKE	985141000521659
353	M	22 May 2009	228	227	RANUA	22 May 2009 31 Aug 2011	209021	Birth Death		MIKE	985141000521629
354	F	14 Aug 2009	270	200	HELSINKI MOSCOW	14 Aug 2009 16 Dec 2011	209063 110664	Birth Transfer	PINK	BAJAJAGA	956000001838283
355	M	6 May 2009	176	198	ARNHEM BERLIN TP BERLINZOO MAGDEBURG LIBEREC	6 May 2009 3 Feb 2010 24 Mar 2010 21 Feb 2013 7 Nov 2016 30 Aug 2017	615211 ESB355 443024 665006	Birth Transfer Transfer Transfer Death		Mr. ED	0006D0BD91
356	F	12 May 2009	176	202	ARNHEM	12 May 2009 10 Sep 2009	615212	Birth Death			0006D0E709
357	F	16 May 2009	176	179	ARNHEM	16 May 2009 23 Jun 2009	615213	Birth Death		SANNE	0006D0F52C
358	M	~ 2007	WILD	WILD	RUSSIA MOSCOW	20 Jul 2008 31 Jul 2008 9 Nov 2009	NONE 80490	Capture Transfer Death		VASKA	
359	F	~ 2007	WILD	WILD	RUSSIA MOSCOW	19 Jul 2008 31 Jul 2008 16 Sep 2008	NONE 80491	Capture Transfer Death			
360	F	~ 2006	WILD	WILD	RUSSIA MOSCOW	17 Jul 2008 31 Jul 2008 10 Oct 2008	NONE 80492	Capture Transfer Death			
361	M	11 May 2009	136	245	BERN	11 May 2009 18 May 2009	A90109	Birth Death			
362	?	21 May 2009	136	166	BERN	21 May 2009 21 May 2009	A90125	Birth Death			
363	M	30 May 2009	136	264	BERN	30 May 2009 15 Sep 2010	A90134	Birth Death			756098100485399
364	M	19 May 2009	184	206	KERKRADE	19 May 2009 16 Jun 2009	M09047	Birth Death	019	GAIA 13	0006C92F5A
365	M	19 May 2009	184	208	KERKRADE	19 May 2009 21 Dec 2010	M09048	Birth Death	018	GAIA 14	0006B880A9
366	F	20 May 2009	184	271	KERKRADE	20 May 2009 4 May 2015	M09049	Birth Death	015	GAIA 15	0006B891A5
367	F	25 May 2009	184	267	KERKRADE	25 May 2009	M09058	Birth	BROWN 020	GAIA 16	0006C92CB6
368	M	3 Jun 2009	184	265	KERKRADE SALZBURG	3 Jun 2009 2 Feb 2011 1 Jul 2012	M09059 S1272	Birth Transfer Death	0021	KIVALO	0006B89AD6
369	F	15 May 2010	270	173	HELSINKI	15 May 2010	210012	Birth	GREEN 274/BLCLIO		956000001737456
370	F	24 May 2010	270	200	HELSINKI MOSCOW	24 May 2010 16 Dec 2011 30 Jul 2013	210021 110662	Birth Transfer Death	YELLOW 677	CUMU	956000002409877
371	F	27 May 2010	270	288	HELSINKI MOSCOW	27 May 2010 16 Dec 2011 15 Jul 2014	210022 110663	Birth Transfer Death	LILAC	CATARIINA	956000001836939
372	M	24 May 2010	116	157	HUNBSTRND	24 May 2010 20 Sep 2011	210023	Birth Death	GREEN/GREEN	LEIF	977200007463295

373	F	26 May 2010	116	145	HUNBSTRND	26 May 2010	210031	Birth	IRMA	977200007465015
374	F	17 May 2010	240	278	LYCKSELE	17 May 2010	LRTS1001	Birth	RITA	968000003432874
375	F	13 May 2010	266	261	JARVZOO AHTARI	13 May 2010 16 Apr 2013	JZM10010 213005	Birth Transfer	GLENDA	968000004326763
376	M	17 May 2010	266	158	JARVZOO	17 May 2010 6 Mar 2013	JZM10012	Birth Death	40	
377	F	22 May 2010	266	280	JARVZOO	22 May 2010 24 May 2010	JZM10017	Birth Death		
378	F	2 Jun 2010	116	259	HUNBSTRND	2 Jun 2010 7 Feb 2017	210061	Birth Death	GREEN/GREEN PIRJO	977200007467183
379	M	29 May 2010	270	312	HELSINKI	29 May 2010 3 Jun 2010	210027	Birth Death		
380	M	14 May 2010	219	220	RIGA MOSCOW	14 May 2010 20 Apr 2011 28 Sep 2015	M10148 110182	Birth Transfer Death	KIRLIS	972270000005703
381	M	14 May 2010	219	115	RIGA MOSCOW	14 May 2010 20 Apr 2011	M10149 110183	Birth Transfer	RANTANS	972270000005576
382	M	15 May 2010	219	298	RIGA MOSCOW	15 May 2010 20 Apr 2011 24 Sep 2011	M10150 110184	Birth Transfer Death	LUDIS	972000010031433
383	F	10 May 2010	176	198	ARNHEM SALZBURG	10 May 2010 2 Feb 2011 3 Jan 2014	615777 S1271	Birth Transfer Death	INARI	0006DCF103
384	M	19 May 2010	176	202	ARNHEM	19 May 2010 7 Jun 2010	615810	Birth Death		0006CA06C7
385	M	22 May 2010	176	179	ARNHEM	22 May 2010 12 Jun 2011	615811	Birth Death		0006C9E941
386	F	15 Jun 2010	116	141	HUNBSTRND	15 Jun 2010 21 Sep 2010	210069	Birth Death	L.BLUE/L.BLUINEZ	9772000074644999
387	F	12 May 2010	223	152	AHTARI MOSCOW	12 May 2010 16 Dec 2011 1 Dec 2014	210004 110668	Birth Transfer Death	GREEN 232	9851210183269
388	F	13 May 2010	223	101	AHTARI LAUHANVUO	13 May 2010 1 Nov 2017	210005 189	Birth Transfer	WHITE 189 JADE	985121018050353
389	M	16 May 2010	223	237	AHTARI RANUA	16 May 2010 20 Nov 2011 27 Aug 2018	210007 211058	Birth Transfer Death	BLUE 336 JOKKE	985121018247575
390	F	11 Jun 2010	223	151	AHTARI MOSCOW	11 Jun 2010 16 Dec 2011 17 Dec 2015	210006 110670	Birth Transfer Death	RED 428	985121018324737
391	F	25 May 2010	228	227	RANUA MOSCOW	25 May 2010 16 Dec 2011 19 Dec 2011	210025 110666	Birth Transfer Death	RED 94 MINJA	985170000341232
392	F	26 May 2010	228	172	RANUA MOSCOW	26 May 2010 16 Dec 2011	210026 110667	Birth Transfer	GREEN 10 MANJA	985170000342098
393	F	12 Jun 2010	176	315	BERLINZOO	12 Jun 2010	M1000015	Birth		0006B2B584
394	F	26 Jun 2010	311	264	BERN SALZBURG	26 Jun 2010 25 Oct 2011 20 Mar 2013	B00161 S1493	Birth Transfer Death	HAMNINA	756098100493344
395	M	1 Jul 2010	311	284	BERN	1 Jul 2010 29 Apr 2011	B00168	Birth Death	JALO	756098100489913
396	M	14 Jul 2010	311	313	BERN	14 Jul 2010 14 Jul 2010	B00173	Birth Death		
397	F	17 May 2011	330	307	HUNBSTRND ARNHEM	17 May 2011 13 Apr 2012	211039 616968	Birth Transfer	D.BLUE/D.BLUMIRKA	977200007675453
398	F	29 May 2011	330	145	HUNBSTRND	29 May 2011 13 Apr 2012	211050	Birth Death	ORNANGE/ORANSINIKKA	977200007666722

399	M	5 Jun 2011	330	157	HUNBSTRND	5 Jun 2011 7 Jun 2011	211067	Birth Death		LENNART	
400	F	14 May 2011	219	220	RIGA	14 May 2011	M11059	Birth		REZIJA	985170000942783
401	M	19 May 2011	219	298	RIGA PRAHA	19 May 2011 28 Oct 2013	M11060 130427	Birth Transfer		LORDS	985170000942082
402	F	26 May 2011	219	115	RIGA	26 May 2011	M11064	Birth		KALME	985170000951327
403	F	19 May 2011	223	235	AHTARI LAUHANVUO FINLAND	19 May 2011 1 Nov 2017 3 Dec 2019	211001 186 186	Birth Transfer Release	WHITE 186	ELVIIRA	
404	F	6 Jun 2011	223	253	AHTARI	6 Jun 2011 7 Jun 2011	211002	Birth Death	GREEN 228		
405	M	21 May 2011	176	198	ARNHEM	21 May 2011 11 Jun 2011	616405	Birth Death			0007025344
406	M	21 May 2011	176	202	ARNHEM	21 May 2011 22 Jul 2011	616406	Birth Death			0007022588
407	F	22 May 2011	176	179	ARNHEM	22 May 2011	616407	Birth			0007023863
408	M	29 May 2011	311	264	BERN ARNHEM KERKRADE	29 May 2011 20 Sep 2012 14 Dec 2016	B10069 617259 M11754	Birth Transfer Transfer		BILLY	756098100543212
409	F	31 May 2011	311	284	BERN	31 May 2011 2 Jun 2011	B10077	Birth Death			
410	F	15 May 2011	266	346	ALM N	15 May 2011 10 Jun 2011		Birth Death			
411	F	21 May 2011	228	227	RANUA	21 May 2011 24 Sep 2013	211009	Birth Death	PURPLE 003	MIRJA	
412	M	23 May 2011	228	172	RANUA	23 May 2011 3 Sep 2012	211010	Birth Death		MARTTI	
413	M	8 May 2011	266	261	JARVZOO LYCKSELE SWEDEN	8 May 2011 22 Nov 2011 4 Mar 2015	JZM11006 LRTS1101	Birth Transfer Death		PONDUS	968000004369225
414	M	11 May 2011	266	158	JARVZOO	11 May 2011 22 Aug 2013	JZM11007	Birth Death			
415	M	15 May 2011	266	280	JARVZOO	15 May 2011 7 Aug 2013	JZM11008	Birth Death			
416	F	11 May 2011	270	173	HELSINKI SALZBURG	11 May 2011 7 Nov 2013	211007 S1863	Birth Transfer	GREEN 241	DUULI	956000008413264
417	M	30 May 2011	270	354	HELSINKI	30 May 2011 19 Jun 2011	211008	Birth Death			
418	F	23 Jun 2011	270	200	HELSINKI RANUA	23 Jun 2011 16 Nov 2012	211052 212061	Birth Transfer	RED	DIMMA	956000001734688
419	M	13 May 2011	240	278	LYCKSELE	13 May 2011 1 Feb 2012	LRTS1102	Birth Death			
420	F	20 May 2011	240	279	LYCKSELE JARVZOO	20 May 2011 22 Nov 2011	LRTS1103 JZM11028	Birth Transfer		HILDUR	968000003399786
421	M	23 May 2011	355	343	BERLINZOO SALZBURG	23 May 2011 20 Nov 2012 13 Dec 2013	421 S1708	Birth Transfer Death			0006B2A7EE
422	F	31 May 2011	355	322	BERLINZOO	31 May 2011	M1100025	Birth			0006B2FEB2
423	M	4 Jun 2011	355	315	BERLINZOO	4 Jun 2011 6 Jun 2011	423	Birth Death			
424	?	20 May 2011	316	366	KERKRADE	20 May 2011 21 May 2011	M11054	Birth Death		GAIA 18	
425	F	11 May 2012	355	343	BERLINZOO	11 May 2012	M1200027	Birth			0006B25C24
426	F	12 May 2012	330	259	HUNBSTRND LIBEREC	12 May 2012 10 May 2013	212032 665001	Birth Transfer	ROSA/ROSA	YKSI	977200008167014
427	?	16 May 2012	355	315	BERLINZOO	16 May 2012	427	Birth			

						16 May 2012		Death			
428	F	14 May 2012	330	307	HUNBSTRND LIBEREC	14 May 2012 10 May 2013	212035 665002	Birth Transfer	WHITE/WHITE KAKSI		977200008167119
429	M	18 May 2012	270	173	HELSINKI RIGA	18 May 2012 27 Feb 2014	212005 M12290	Birth Transfer	ELMO		956000001842455
430	F	11 May 2012	176	198	ARNHEM	11 May 2012	617027	Birth	Light pink		00071AFBB4
431	F	17 May 2012	311	284	BERN PRAHA	17 May 2012 9 Oct 2013	B20077 130383	Birth Transfer			7560998100562596
432	M	20 May 2012	311	264	BERN	20 May 2012 5 Sep 2013	B20078	Birth Death			756098100565740
433	M	25 May 2012	330	378	HUNBSTRND	25 May 2012 26 May 2012	212042	Birth Death	PEKKA		
434	F	28 May 2012	330	373	HUNBSTRND	28 May 2012 14 Jun 2012	212089	Birth Death	L.BLUE	ISIS	977200008175630
435	F	20 May 2012	176	202	ARNHEM SALZBURG	20 May 2012 14 Apr 2014 12 Jun 2017	617028 S1933	Birth Transfer Death			00071ADEDB
436	M	9 Jun 2012	355	322	BERLINZOO	9 Jun 2012 14 Jul 2012	436	Birth Death			0006828C4F
437	M	23 Jun 2012	355	393	BERLINZOO LIBEREC	23 Jun 2012 10 May 2013 28 Aug 2013	437 665003	Birth Transfer Death	MARIO		0006B275B3
438	M	13 May 2012	266	261	JARVZOO	13 May 2012 3 Dec 2014	JZM12005	Birth Death	IDAR		
439	F	19 May 2012	266	280	JARVZOO AHTARI	19 May 2012 16 Apr 2013	JZM12006 213003	Birth Transfer	29	GERSTIN	968000004325683
440	F	20 May 2012	266	375	JARVZOO AHTARI	20 May 2012 16 Apr 2013	JZM12007 213004	Birth Transfer	26	GRETA	968000004320483
441	F	25 May 2012	240	350	JARVZOO	25 May 2012 24 May 2015	JZM12008	Birth Death	ILONA		
442	M	13 Jul 2012	389	227	RANUA	13 Jul 2012 16 Oct 2013	212038	Birth Death	WHITE 010	MIHKU	
443	M	16 Jul 2012	389	172	RANUA	16 Jul 2012 4 Sep 2012	212039	Birth Death	LILIAN 57	MAHKU	
444	M	11 May 2012	219	220	RIGA	11 May 2012 21 Apr 2013	M12146	Birth Death	KLINTS		985170002480010
445	M	27 May 2012	219	298	RIGA	27 May 2012 15 Oct 2013	M12148	Birth Death	LAIMINS		985120021918545
446	F	27 May 2012	270	288	HELSINKI PRAHA	27 May 2012 28 Oct 2013 10 Jul 2018	212016 130428	Birth Transfer Death	Pink	ELOVEENA	956000008385445
447	F	10 May 2012	316	317	KERKRADE PRAHA	10 May 2012 6 Nov 2013	M12019 130451	Birth Transfer	PINK 001	GAIA 19	528093490007253
448	M	16 May 2012	240	278	LYCKSELE	16 May 2012 1 Feb 2013	LRTS1202	Birth Death			
449	M	25 May 2012	240	279	LYCKSELE	25 May 2012 5 Nov 2012	LRTS1201	Birth Death			
450	?	10 Jan 2012	247	299	KINGUSSIE	10 Jan 2012 10 Jan 2012	5570	Birth Death			
451	F	13 May 2013	176	198	ARNHEM	13 May 2013 10 Aug 2013	617604	Birth Death			528093490020463
452	F	9 May 2013	355	343	BERLINZOO PLEUGUEN	9 May 2013 24 Mar 2014	M1300031 CR3	Birth Transfer			00074-EF37B
453	M	15 May 2013	330	378	HUNBSTRND	15 May 2013 13 May 2014	213018	Birth Death	TURQUOISE	LAPIN	968000010014918
454	M	16 May 2013	330	259	HUNBSTRND PLEUGUEN	16 May 2013 25 Apr 2014	213019 CR4	Birth Transfer	WHITE	KOFF	968000010080420

455	F	16 May 2013	330	307	HUNBSTRND KINGUSSIE	16 May 2013 8 May 2014 1 Jun 2015	213020 5760	Birth Transfer Death	ROSA		968000010011410
456	F	24 May 2013	311	284	BERN PLEUGUEN	24 May 2013 24 Mar 2014	B30052 CR1	Birth Transfer			756098100629617
457	F	24 May 2013	311	264	BERN PLEUGUEN	24 May 2013 24 Mar 2014	B30053 CR2	Birth Transfer			756098100631100
458	F	20 May 2013	219	220	RIGA HELSINKI	20 May 2013 25 Feb 2014	M13092 214001	Birth Transfer	YELLOW	KRUSA	98570002681727
459	M	4 Jun 2013	219	298	RIGA KRONBERG	4 Jun 2013 26 Oct 2015	M13096 2744	Birth Transfer		LIETUTINS	98511000344060
460	M	18 May 2013	380	370	MOSCOW	18 May 2013 8 Nov 2013	130108	Birth Death			
461	M	19 May 2013	380	354	MOSCOW	19 May 2013	130109	Birth	132		
462	F	19 May 2013	381	390	MOSCOW KERZHENSK	19 May 2013 4 Dec 2014	130110 462	Birth Transfer		LENA	
463	M	20 May 2013	381	325	MOSCOW	20 May 2013 16 Sep 2018	130111	Birth Death			
464	M	20 May 2013	380	387	MOSCOW KERZHENSK	20 May 2013 25 Dec 2014	130112 464	Birth Transfer	135	IGNAT	
465	M	31 May 2013	355	393	BERLINZOO LIBEREC	31 May 2013 5 Mar 2014 13 Oct 2014	M1300030 665004	Birth Transfer Death		NIKO	00072-87302
466	M	5 Jun 2013	381	339	MOSCOW	5 Jun 2013	130260	Birth			
467	F	15 Jun 2013	381	338	MOSCOW	15 Jun 2013 20 Oct 2014	130283	Birth Death			
468	M	8 Jun 2013	219	402	RIGA	8 Jun 2013 26 Apr 2016	M13101	Birth Death		KASPERS	985141000868386
469	F	24 May 2013	330	373	HUNBSTRND KINGUSSIE	24 May 2013 8 May 2014	213041 5759	Birth Transfer	Orange	SAHTI	968000010082569
470	M	25 May 2013	176	202	ARNHEM	25 May 2013 10 Oct 2014	617669	Birth Death			528093490020424
471	F	9 Jun 2013	408	407	ARNHEM	9 Jun 2013 8 Jul 2013	617685	Birth Death			528093490020405
472	F	10 May 2013	266	261	JARVZOO	10 May 2013 21 Sep 2014	JZM13011	Birth Death			
473	M	16 May 2013	266	158	JARVZOO	16 May 2013 12 Sep 2015	JZM13012	Birth Death		JORM	
474	F	18 May 2013	266	350	JARVZOO	18 May 2013 23 May 2015	JZM13013	Birth Death		JUTTA	
475	M	19 May 2013	266	280	JARVZOO	19 May 2013 19 Nov 2014	JZM13014	Birth Death			
476	F	13 May 2013	223	324	AHTARI	13 May 2013 14 May 2013	213014	Birth Death			
477	M	18 May 2013	223	403	AHTARI	18 May 2013 18 May 2013	213013	Birth Death			
478	F	20 May 2013	223	388	AHTARI	20 May 2013 20 May 2013	213015	Birth Death			
479	F	20 May 2013	266	375	AHTARI	20 May 2013	213016	Birth	0107	LENITA	985170002270017
480	M	26 May 2013	389	172	RANUA AHTARI	26 May 2013 8 Oct 2015 8 Aug 2018	213008 215068	Birth Transfer Death	GREEN 003	MAGNUS	978101081198891
481	F	28 May 2013	389	227	RANUA	28 May 2013 18 Jun 2013	213011	Birth Death	PINK 001	MILJA	

482	M	3 Jun 2013	389	418	RANUA AHTARI FINLAND	3 Jun 2013 8 Oct 2015 11 May 2019	213013 215065 568	Birth Transfer Release	Violet 568	TOFFO	978101081198865
483	F	12 Jun 2013	389	411	RANUA	12 Jun 2013 30 Jun 2013	213020	Birth Death	BLUE 004	MINKA	
484	M	26 May 2013	270	369	HELSINKI	26 May 2013 30 Sep 2014	213034	Birth Death	RED	FEODOR	956000008384825
485	F	3 Jun 2013	270	288	HELSINKI	3 Jun 2013 3 Jun 2019	213044	Birth Death	WHITE	FINKA	956000008419397
486	M	1 Jul 2013	187	341	ROTTERDAM SALZBURG	1 Jul 2013 5 Mar 2014 14 Apr 2014	Z13187 S1908	Birth Transfer Death		SJAAK	528046000025785
487	M	16 May 2013	413	349	LYCKSELE	16 May 2013 14 Feb 2014	LRTS1303	Birth Death			
488	M	16 May 2013	413	278	LYCKSELE	16 May 2013 24 Apr 2014	LRTS1302	Birth Death			
489	F	1 Jun 2013	413	374	LYCKSELE RANUA	1 Jun 2013 30 Apr 2015	LRTS1301 215005	Birth Transfer	SE039435-001MAJBRIIT		968000003414806
490	F	14 May 2014	408	397	ARNHEM	14 May 2014	2313	Birth	Orange		5280934900326
491	F	14 May 2014	330	307	HUNBSTRND AHTARI SEITSEMIN	14 May 2014 4 Oct 2016 28 Nov 2017	214012 216053 PINK	Birth Transfer Transfer	PINK	FINLANDIA	968000010165788
492	F	16 May 2014	330	259	HUNBSTRND AHTARI LAUHANVUO	16 May 2014 4 Oct 2016 28 Nov 2017	214015 216052 WHITE	Birth Transfer Transfer	WHITE	JETZIN	968000010174269
493	M	18 May 2014	330	378	HUNBSTRND	18 May 2014 18 Jul 2014	214016	Birth Death			
494	M	19 May 2014	389	418	RANUA AHTARI FINLAND	19 May 2014 8 Oct 2015 11 May 2019	214022 215066 153	Birth Transfer Release	White 153	MOKKE	978101081157058
495	M	6 May 2014	270	288	HELSINKI	6 May 2014 3 Jun 2014	214012	Birth Death	GREEN	GOSTA	956000008397242
496	F	15 May 2014	270	369	HELSINKI	15 May 2014 23 May 2014	214023	Birth Death	RED	GADDJA	956000008416734
497	F	29 May 2014	330	373	HUNBSTRND AHTARI SEITSEMIN FINLAND	29 May 2014 4 Oct 2016 28 Nov 2017 26 Nov 2019	214036 216051 RED RED	Birth Transfer Transfer Release	RED	FINKA	968000010166031
498	F	10 May 2014	266	261	JARVZOO	10 May 2014 3 Nov 2015	JZM14007	Birth Death	YELLOW 032	KATJA	
499	?	17 May 2014	266	420	JARVZOO	17 May 2014 17 May 2014	JZM14014	Birth Death			
500	F	17 May 2014	408	198	ARNHEM	17 May 2014 24 Sep 2014	2314	Birth Death	YELLOW		5280193490032949
501	M	25 May 2014	408	407	ARNHEM	25 May 2014 5 Nov 2014	2317	Birth Death	PURPLE		528093490032988
502	F	30 May 2014	408	202	ARNHEM	30 May 2014 7 Oct 2014	2316	Birth Death	BLUE		528093490020417
503	M	11 Jul 2014	401	431	PRAHA	11 Jul 2014 12 Jul 2014	140253	Birth Death			
504	F	12 May 2014	223	324	AHTARI	12 May 2014 5 Nov 2015	214027	Birth Death	WHITE 148	VIVA	
505	F	13 May 2014	223	375	AHTARI	13 May 2014	214028	Birth	BLUE 385	FLOORA	
506	M	28 May 2014	311	264	BERN SALZBURG	28 May 2014 7 Apr 2015 12 Dec 2016	B40093 S2070	Birth Transfer Death	BLUE		756098100666179
507	M	31 May 2014	311	284	BERN LIBEREC	31 May 2014 29 Apr 2015 3 Aug 2015	B40095 665005	Birth Transfer Death			756098100670143

508	F	24 May 2014	337	271	KERKRADE	24 May 2014 24 May 2014	M14670	Birth Death			
509	M	19 Jun 2014	337	317	KERKRADE	19 Jun 2014 1 Sep 2015	M14727	Birth Death	BLUE 088	MIKA	528093490039409
510	M	22 Jun 2014	337	367	KERKRADE	22 Jun 2014 8 Sep 2015	M14729	Birth Death	YELLOW 049	MATTI	528093490039401
511	M	24 Jun 2014	337	267	KERKRADE	24 Jun 2014 25 Aug 2015	M14732	Birth Death	GREEN 001	FYNN	528098490039404
512	M	19 May 2015	381	462	KERZHENSK	19 May 2015 19 May 2015	512	Birth Death			
513	F	20 May 2014	223	388	AHTARI	20 May 2014 20 May 2014	214049	Birth Death		NOPO	
514	F	21 May 2014	223	403	AHTARI	21 May 2014 22 May 2014	214050	Birth Death		SOPO	
515	F	23 May 2014	223	530	AHTARI	23 May 2014 24 May 2014	214047	Birth Death		AFFA	
516	F	29 May 2014	223	439	AHTARI	29 May 2014 12 Jun 2014	214030	Birth Death	RED 140	ORVOKKI	
517	F	19 May 2014	381	325	MOSCOW KERZHENSKY KERZHENSK	19 May 2014 4 Dec 2014 13 Jul 2015	140161 517	Birth Transfer Death			
518	M	19 May 2014	381	390	MOSCOW KERZHENSK	19 May 2014 4 Dec 2014	140162 518	Birth Transfer		ZAHAR	
519	F	16 May 2014	380	387	MOSCOW	16 May 2014 15 Jun 2014	140160	Birth Death			
520	F	24 May 2014	380	371	MOSCOW	24 May 2014 5 Dec 2014	140237	Birth Death			
521	F	28 May 2014	380	354	MOSCOW KERZHENSK	28 May 2014 4 Dec 2014	140238 521	Birth Transfer		LUSYA	
522	M	12 Jun 2014	408	430	ARNHEM	12 Jun 2014 12 Jun 2014	3108	Birth Death			
523	F	27 May 2014	219	298	RIGA	27 May 2014	M14119	Birth		LAIMINA	
524	M	29 May 2014	389	227	RANUA AHTARI FINLAND	29 May 2014 8 Oct 2015 11 May 2019	214025 215067 157	Birth Transfer Release	White 157	MIKKI	978101198852
525	F	27 Jun 2014	389	172	RANUA	27 Jun 2014 29 Jul 2014	214048	Birth Death	Pink 98	MANNA	
526	M	14 May 2014	413	374	LYCKSELE JARVZOO	14 May 2014 21 Sep 2015 3 Nov 2015	LRTS1403 JZM15034	Birth Transfer Death	ORANGE		968000003404738
527	F	16 May 2014	413	349	LYCKSELE RANUA	16 May 2014 30 Apr 2015 26 Jun 2018	LRTS1401 215006	Birth Transfer Death	SE0394350013CAROLA		968000003468955
528	F	18 May 2014	413	279	LYCKSELE	18 May 2014 10 Apr 2015	LRTS1402	Birth Death		NUMMIKALVEN	968000003401441
529	F	21 May 2014	413	278	LYCKSELE	21 May 2014 21 Dec 2014	LRTS1404	Birth Death			
530	F	22 May 2012	223	253	AHTARI LAUHANVUO FINLAND	22 May 2012 1 Nov 2017 12 Dec 2019	212004 328 328	Birth Transfer Release	Blue 328	JAFFA	
531	F	23 May 2014	223	440	AHTARI	23 May 2014 2 Jun 2014	214029	Birth Death	248	KUKKA	
532	M	28 May 2014	187	341	ROTTERDAM PLOCK	28 May 2014 21 Oct 2015	Z14215 A20537	Birth Transfer		FEREK	528046000025976
533	F	10 Jul 2012	223	324	AHTARI	10 Jul 2012 7 Apr 2014	212035	Birth Death	446		

534	?	10 Apr 2015	337	208	KERKRADE	10 Apr 2015 10 Apr 2015	M015042	Birth Death			
535	?	22 Apr 2015	408	407	ARNHEM	22 Apr 2015 22 Apr 2015	6472	Birth Death			
536	?	2 May 2015	337	366	KERKRADE	2 May 2015 2 May 2015	M15069	Birth Death			
537	M	18 May 2015	389	418	RANUA	18 May 2015 6 Sep 2016	215013	Birth Death	WHITE 007	BONDI	
538	M	13 May 2015	330	259	HUNBSTRND	13 May 2015 10 Mar 2016	215014	Birth Death	YELLOW	JAHKI	752098100702414
539	M	15 May 2015	330	307	HUNBSTRND SLOTTSKOG	15 May 2015 9 Mar 2016	215015 2016002	Birth Transfer	LILIAC	RAKKI	752098100700395
540	M	12 May 2015	381	325	MOSCOW KERZHENSK	12 May 2015 17 Mar 2016 12 Dec 2019	150195 150101-6	Birth Transfer Death			
541	M	12 May 2015	380	354	MOSCOW KERZHENSK	12 May 2015 17 Mar 2016 19 Mar 2016	150196 541	Birth Transfer Death			
542	F	15 May 2015	381	390	MOSCOW KERZHENSK	15 May 2015 17 Mar 2016 18 Mar 2016	150206 542	Birth Transfer Death			
543	M	17 May 2015	380	339	MOSCOW KERZHENSK	17 May 2015 17 Mar 2016	150207 543	Birth Transfer			
544	M	19 May 2015	311	284	BERN KRONBERG	19 May 2015 21 Apr 2016 25 Sep 2018	B50088 3783	Birth Transfer Death			7560981006969824
545	F	21 May 2015	429	402	RIGA	21 May 2015 21 May 2015	N15071	Birth Death			
546	F	18 May 2015	401	447	PRAHA	18 May 2015 29 Jun 2015	150147	Birth Death			900032001749464
547	F	19 May 2015	401	446	PRAHA PLOCK	19 May 2015 22 Mar 2016	150148 A20565	Birth Transfer			900032001749463
548	M	18 May 2015	330	378	HUNBSTRND	18 May 2015 10 Mar 2016	215017	Birth Death	GREEN	PLAKKI	752098100699548
549	F	24 May 2015	330	373	HUNBSTRND	24 May 2015 3 Sep 2015	215025	Birth Death	BLUE	VIINI	752098100701846
550	F	22 May 2015	311	264	BERN SLOTTSKOG	22 May 2015 8 Mar 2016	B50104 2016001	Birth Transfer		LAVRA	756098100688686
551	F	14 May 2015	413	278	LYCKSELE	14 May 2015 3 Nov 2015	LRTS1501	Birth Death		RANDIS	
552	F	16 May 2015	413	349	LYCKSELE	16 May 2015 30 Jun 2015	LRTS1504	Birth Death	YELLOW	ALVA	
553	M	17 May 2015	413	374	LYCKSELE	17 May 2015 31 May 2016	LRTS1502	Birth Death	ORANGE	PONTA	
554	M	18 May 2015	413	279	LYCKSELE	18 May 2015 31 May 2016	LRTS1503	Birth Death		NUDUS	
555	F	24 May 2015	389	227	RANUA SEITSEMIN FINLAND	24 May 2015 15 Nov 2017 28 Nov 2019	215030 56 PURPLE	Birth Transfer Release	DARK PURPLE	MINNIPENNI	978101080838251
556	M	18 May 2015	270	369	HELSINKI	18 May 2015 23 May 2015	215027	Birth Death			
557	M	26 May 2015	429	400	RIGA KRONBERG SALZBURG	26 May 2015 26 Oct 2015 15 Feb 2017	M15077 2475 S2372	Birth Transfer Transfer		SEPPI	9851170002978608
558	F	21 May 2015	270	485	HELSINKI AHTARI LAUHANVUO	21 May 2015 31 Oct 2016 1 Nov 2017	215028 216060 PINK	Birth Transfer Transfer	Pink	HILLA	934000007103

559	M	27 May 2015	270	458	HELSINKI AHTARI FINLAND	27 May 2015 31 Oct 2016 11 May 2019	215029 216059 279	Birth Transfer Release	L.green 279	HAVU	
560	M	30 May 2015	266	261	JARVZOO LYCKSELE	30 May 2015 22 Sep 2015 18 Apr 2018	JZM15030 LRTS1505	Birth Transfer Death	Blue	VIKING	968000010110947
561	M	30 May 2015	337	317	KERKRADE	30 May 2015 28 Jun 2015	M15109	Birth Death	Blue 051	SVEN	528257000009159
562	F	31 May 2015	408	198	ARNHEM	31 May 2015	6531	Birth	Orange		528257000003282
563	?	1 Jun 2015	247	455	KINGUSSIE	1 Jun 2015 1 Jun 2015	5861	Birth Death			
564	M	2 Jun 2015	381	338	MOSCOW KERZHENSK	2 Jun 2015 17 Mar 2016	150253 564	Birth Transfer			
565	M	2 Jun 2015	266	420	JARVZOO ROTTERDAM	2 Jun 2015 25 Sep 2017	JZM15029 Z17395	Birth Transfer	035	JAQUES	968000010594012
566	F	22 May 2015	266	350	JARVZOO SLOTTSKOG	22 May 2015 21 Mar 2016 1 Sep 2019	JZM15020 2016004	Birth Transfer Death	034	AILA	968000010080094
567	M	15 May 2015	223	479	AHTARI HELSINKI	15 May 2015 27 Oct 2016	215031 216101	Birth Transfer	WHITE 170	MAXI	9851110057860
568	F	5 Jun 2015	337	265	KERKRADE	5 Jun 2015 27 Jun 2015	M15121	Birth Death	YELLOW 001		528257000009182
569	F	5 Jun 2015	337	267	KERKRADE	5 Jun 2015 4 Oct 2018	M15122	Birth Death	RED 038		528257000009127
570	F	7 Jun 2015	337	206	KERKRADE	7 Jun 2015	M15123	Birth	GREEN 002		528257000009128
571	M	15 May 2015	223	440	AHTARI HUNBSTRND	15 May 2015 28 Oct 2016 14 Oct 2018	215032 216181	Birth Transfer Death	BLUE 309	ALVAR	985111001057859
572	M	18 May 2015	223	439	AHTARI	18 May 2015 13 Aug 2015	215033	Birth Death		MORIX	
573	F	18 May 2015	223	375	AHTARI	18 May 2015 24 Jun 2015	215034	Birth Death	RED 404	JASMIN	
574	F	16 May 2015	266	158	JARVZOO SLOTTSKOG	16 May 2015 21 Mar 2016	JZM15018 2016003	Birth Transfer	033	NOOMI	968000010080969
575	?	24 May 2015	266	441	JARVZOO	24 May 2015 24 May 2015	JZM15019	Birth Death			
576	?	23 May 2015	266	474	JARVZOO	23 May 2015 23 May 2015	JZM15021	Birth Death			
577	M	3 Jun 2015	429	298	RIGA KRONBERG	3 Jun 2015 26 Oct 2015 6 Oct 2016	M15136 LINNIS	Birth Transfer Death		LINNIS	958170002978101
578	M	29 May 2015	401	431	PRAHA	29 May 2015 31 May 2015	150198	Birth Death			
579	F	21 Jun 2015	337	367	KERKRADE	21 Jun 2015	M15160	Birth	WHITE 013	GAIA 31	529257000009158
580	M	9 May 2015	408	430	ARNHEM	9 May 2015 9 May 2015	6491	Birth Death			
581	F	29 May 2015	187	341	ROTTERDAM	29 May 2015 30 May 2019	Z15118	Birth Death		SJAKIRA	528210004193881
582	F	7 Jun 2015	413	489	RANUA	7 Jun 2015 8 Jun 2015	215055	Birth Death			
583	?	4 May 2016	408	198	ARNHEM	4 May 2016 4 May 2016	7023	Birth Death			
584	M	14 May 2016	266	261	JARVZOO	14 May 2016 7 Oct 2017	JZM16002	Birth Death			
585	M	16 May 2016	270	369	HELSINKI AHTARI	16 May 2016 30 Oct 2017	216040 217039	Birth Transfer	Blue	ILMARI	934000011107143

586	F	12 May 2016	408	430	ARNHEM BERN	12 May 2016 4 Jan 2018	7056 B80001	Birth Transfer	PURPLE		52825700004186
587	M	14 May 2016	381	354	MOSCOW	14 May 2016 29 Jun 2016	160175	Birth Death			
588	F	16 May 2016	381	392	MOSCOW	16 May 2016	160176	Birth			
589	F	16 May 2016	330	259	HUNBSTRND	16 May 2016 23 Sep 2016	216042	Birth Death	ORANGE	ASSAT	968000010173067
590	F	18 May 2016	330	307	HUNBSTRND	18 May 2016 12 Jun 2017	216045	Birth Death	LIGHT BLUE	LUKKO	968000010164679
591	M	22 May 2016	408	397	ARNHEM KINGUSSIE	22 May 2016 24 Oct 2017	7055 6058	Birth Transfer	WHITE	SVEN	528257000004181
592	M	23 May 2016	330	378	HUNBSTRND BERLINZOO	23 May 2016 28 Apr 2017 30 Sep 2017	216046 M1600155	Birth Transfer Death	LIGHT GREEN	TAPPARA	968000010165816
593	F	24 May 2016	266	158	JARVZOO PLOCK	24 May 2016 22 Nov 2017	JZM16007 A20644	Birth Transfer		MINA	968000010592607
594	F	20 May 2016	389	418	RANUA SEITSEMIN	20 May 2016 15 Nov 2017	216023 19	Birth Transfer	Green 19	DIDI	978101080835409
595	F	26 May 2016	266	420	JARVZOO PLOCK	26 May 2016 22 Nov 2017 3 Oct 2018	JZM16008 A20645	Birth Transfer Death		MEDINA	968000010592830
596	M	27 May 2016	266	350	JARVZOO	27 May 2016 3 Oct 2017	JZM16016	Birth Death			
597	M	20 May 2016	429	400	RIGA BERLINZOO	20 May 2016 26 Nov 2018	M16097 M1600166	Birth Transfer			985141000868116
598	F	20 May 2016	429	402	RIGA	20 May 2016 20 May 2016	M16141	Birth Death			
599	F	23 May 2016	330	373	HUNBSTRND	23 May 2016	216054	Birth	WHITE	PYRY	968000010165467
600	M	24 May 2016	270	458	HELSINKI AHTARI	24 May 2016 30 Oct 2017	216043 217038	Birth Transfer	GREEN	IIVARI	934000011107147
601	F	27 May 2016	337	317	KERKRADE	27 May 2016 28 Sep 2016	M16233	Birth Death		GAIA 35	
602	M	28 May 2016	337	367	KERKRADE LIBEREC	28 May 2016 28 Sep 2017	M16234 665007	Birth Transfer	BROWN	TEEMU	528257000004301
603	M	28 May 2016	429	298	RIGA	28 May 2016 22 Sep 2017	M16099	Birth Death			9851410000868137
604	M	30 May 2016	506	416	SALZBURG KRONBERG HUNBSTRND	30 May 2016 14 Feb 2017 16 Nov 2018	S2275 3782 218177	Birth Transfer Transfer			040094501003862
605	F	30 May 2016	337	267	KERKRADE	30 May 2016	M16249	Birth	BLUE 052	GAIA 34	528257000004302
606	M	4 May 2016	401	446	PRAHA	4 May 2016 31 May 2016	160159	Birth Death			
607	M	14 May 2016	401	447	PRAHA	14 May 2016 15 May 2016	160160	Birth Death			
608	F	30 May 2016	401	431	PRAHA KINGUSSIE	30 May 2016 23 Oct 2017	160161 6057	Birth Transfer		FREYA	
609	M	2 Jun 2016	187	332	ROTTERDAM	2 Jun 2016 4 Jun 2016	Z16171	Birth Death		JAQUES	528210004404742
610	M	7 Jun 2016	247	469	KINGUSSIE	7 Jun 2016 31 Aug 2016	5948	Birth Death	PINK HWP3	FLOKI	981000008316013
611	M	12 Jun 2016	408	407	ARNHEM MAGDEBURG HANSURLES	12 Jun 2016 30 Nov 2016 10 Oct 2018	7076 443025 GR335	Birth Transfer Transfer	YELLOW		528257000004171
612	M	14 Jun 2016	464	462	KERZHENSK	14 Jun 2016	ZINOVIIY	Birth		ZINOVIIY	
613	?	5 Feb 2017	311	284	BERN	5 Feb 2017 5 Feb 2017	B70003	Birth Death			

614	M	15 May 2017	482	479	AHTARI FINLAND	15 May 2017 12 Sep 2018 11 May 2019	217010 RED474	Birth Transfer Death	Orange 667	JUHA	
615	F	16 May 2017	401	446	PRAHA	16 May 2017 1 Jul 2017	170145	Birth Death			953010000453081
616	M	18 May 2017	401	447	PRAHA HANSURLES	18 May 2017 9 May 2018 11 Sep 2019	170156 GR318	Birth Transfer Death			
617	F	18 May 2017	266	261	JARVZOO HUNBSTRND	18 May 2017 24 Apr 2018	JZM17011 218034	Birth Transfer	ROHKEA		968000010595938
618	F	20 May 2017	389	527	RANUA LAUHANVUO	20 May 2017 11 Oct 2018	217012 CARLA	Birth Transfer	Orange 191	CARLA	9781010808351165
619	M	21 May 2017	389	489	RANUA LAUHANVUO FINLAND	21 May 2017 9 Apr 2019 10 Sep 2019	217013 MASA	Birth Transfer Releases	Green 020	MASA	
620	F	21 May 2017	506	416	SALZBURG	21 May 2017	S2406	Birth	LENNJA		040094501003889
621	M	22 May 2017	266	420	JARVZOO HANSURLES	22 May 2017 19 Apr 2018	JZM17012 GR134	Birth Transfer			968000010584210
622	M	24 May 2017	266	350	JARVZOO HANSURLES	24 May 2017 19 Apr 2018	JZM17013 GR135	Birth Transfer			968000010592436
623	M	25 May 2017	401	431	PRAHA HANSURLES	25 May 2017 9 May 2018	170157 GR317	Birth Transfer			
624	F	20 May 2017	381	325	MOSCOW	20 May 2017	170889	Birth			
625	M	22 May 2017	381	354	MOSCOW	22 May 2017	170890	Birth			
626	F	24 May 2017	381	338	MOSCOW	24 May 2017	170891	Birth			
627	F	26 May 2017	381	392	MOSCOW	26 May 2017 13 Nov 2019	170892	Birth Death			
628	M	18 May 2017	482	375	AHTARI	18 May 2017 11 Aug 2017	217014	Birth Death	Yellow 54	POJU	
629	F	19 May 2017	482	505	AHTARI LAUHANVUO	19 May 2017 15 Feb 2019	217015 PIPSA	Birth Transfer	Red 464	PIPSA	
630	F	20 May 2017	482	439	AHTARI	20 May 2017 20 May 2017	217016	Birth Death			
631	F	21 May 2017	482	440	AHTARI	21 May 2017	217017	Birth	White	MONA	
632	F	20 May 2017	408	397	ARNHEM BERN	20 May 2017 4 Jan 2018	7571 B80002	Birth Transfer	Yellow		528257000032396
633	F	21 May 2017	408	430	ARNHEM	21 May 2017	7572	Birth	L.blue		528257000036206
634	M	29 May 2017	408	407	ARNHEM	29 May 2017 30 May 2017	7573	Birth Death	Black		
635	F	7 Jun 2017	429	298	RIGA	7 Jun 2017 17 Sep 2017	M17115	Birth Death			
636	F	7 Jun 2017	567	458	HELSINKI SEITSEMIN	7 Jun 2017 6 Oct 2018	217040 JOIKU	Birth Transfer	Red	JOIKU	934000011107127
637	M	8 Jun 2017	567	485	HELSINKI AHTARI FINLAND	8 Jun 2017 19 Apr 2018 11 May 2019	217041 218003 059	Birth Transfer Release	L.yellow 059	JAKALA	934000011107155
638	M	6 Jun 2017	482	558	AHTARI LAUHANVUO FINLAND	6 Jun 2017 1 Nov 2017 10 Sep 2019	217020 561	Birth Transfer Release	Violet 561	PATE	
639	F	3 Jun 2017	337	367	KERKRADE	3 Jun 2017	M17221	Birth	Pink 013	Gaia 38	528257000028958
640	F	12 Jun 2017	567	369	HELSINKI SEITSEMIN	12 Jun 2017 6 Oct 2018	217049 JUOLUKKA	Birth Transfer	Green	JUOLUKKA	943000011107122
641	M	10 Jun 2017	518	521	KERZHENSK	10 Jun 2017	17101-10	Birth		TOSHA	
642	F	18 Jun 2017	571	373	HUNBSTRND	18 Jun 2017 24 Aug 2017	217122	Birth Death	Light green	PIHLAJA	752098100818439

643	F	22 May 2017	454	457	PLEUGUEN	22 May 2017 7 Apr 2018	CR5	Birth Death			955000004050807
644	M	20 Jun 2017	337	267	KERKRADE	20 Jun 2017 28 Jun 2017	M17247	Birth Death	Yellow 050	GAIA 41	528257000029050
645	M	20 Jun 2017	389	418	RANUA LAUHANVUO FINLAND	20 Jun 2017 9 Apr 2019 10 Sep 2019	217037 DUOMAS	Birth Transfer Release	Grey 001	DUOMAS	
646	M	22 Jun 2017	571	307	HUNBSTRND LYCKSELE	22 Jun 2017 23 Apr 2018	217135 LRYS1705	Birth Transfer	Yellow	PAKKILA	752098100816663
647	M	30 Apr 2017	454	456	PLEUGUEN	30 Apr 2017 30 Apr 2017	CR6	Birth Death			
648	M	29 May 2017	560	349	LYCKSELE	29 May 2017 18 Apr 2018	LRYS1701	Birth Death		ESTERKALV	
649	M	5 Jun 2017	560	278	LYCKSELE	5 Jun 2017 18 Apr 2018	LRYS1702	Birth Death		RANJAKALV	
650	F	7 Jun 2017	560	279	LYCKSELE	7 Jun 2017	LRYS1704	Birth		MIESSI	
651	F	8 Jun 2017	560	374	LYCKSELE	8 Jun 2017 18 Apr 2018	LRYS1703	Birth Death		RITAKALV	
652	M	~ 2011	WILD	WILD	FINLAND SEITSEMIN RANUA	7 Nov 2017 8 Nov 2017 28 Mar 2019	NONE YELLOWAA 219009	Capture Transfer Transfer	Yellow AA	SAKARI	
653	M	~ 2013	WILD	WILD	FINLAND LAUHANVUO AHTARI	7 Nov 2017 8 Nov 2017 21 Mar 2019	NONE YELLOWBB 219005	Capture Transfer Transfer	Yellow BB	KALLE JUHANI	978101081038795
654	F	~ 2011	WILD	WILD	FINLAND SEITSEMIN	7 Nov 2017 8 Nov 2017	NONE YELLOW87	Capture Transfer	Yellow		978101081038436
655	F	7 May 2018	337	397	ARNHEM AUGSBURG	7 May 2018 28 Feb 2019	8295 2019AH	Birth Transfer	YELLOW		528257000048768
656	F	9 May 2018	454	457	PLEUGUEN	9 May 2018	CR7	Birth			250229600071700
657	M	12 May 2018	567	458	HELSINKI SEITSEMIN FINLAND	12 May 2018 13 Mar 2019 26 Nov 2019	218006 KAIKU L.Blue	Birth Transfer Release	Light blue	KAIKU	934000011107195
658	M	14 May 2018	337	490	ARNHEM	14 May 2018 18 May 2018	8298	Birth Death	Yellow		528257000048763
659	F	11 May 2018	337	430	ARNHEM AUGSBURG	11 May 2018 28 Feb 2019 8 May 2019	8299 2019AG	Birth Transfer Death	Light Blue		528257000048767
660	F	14 May 2018	482	505	AHTARI	14 May 2018	218013	Birth	Yellow 070	HILMA	
661	M	15 May 2018	482	375	AHTARI	15 May 2018	218014	Birth	Orange 660	SVEN	
662	M	21 May 2018	480	492	LAUHANVUO FINLAND	21 May 2018 12 Dec 2019	662 UNK	Birth Release			
663	M	13 May 2018	401	447	PRAHA KRONBERG	13 May 2018 10 Dec 2018	180109 4145	Birth Transfer	White		900008800526412
664	F	16 May 2018	401	446	PRAHA LIBEREC	16 May 2018 11 Mar 2019	180110 665009	Birth Transfer		SAANA	203094100001580
665	F	16 May 2018	567	485	HELSINKI SEITSEMIN	16 May 2018 7 Oct 2019	218008 Kaarna	Birth Transfer	L.green	Kaarna	934000011107191
666	F	16 May 2018	567	369	HELSINKI RANUA	16 May 2018 8 Oct 2019	218009 219052	Birth Transfer	Red	Karpalo	934000011107193
667	F	15 May 2018	518	521	KERZHENSK	15 May 2018	18201-11	Birth			
668	M	19 May 2018	337	407	ARNHEM KRONBERG	19 May 2018 6 Dec 2018 30 May 2019	8300 4136	Birth Transfer Death	Green		528257000048764
669	M	19 May 2018	381	354	MOSCOW	19 May 2018	180248	Birth			
670	M	20 May 2018	461	588	MOSCOW	20 May 2018	180249	Birth			

671	F	20 May 2018	381	325	MOSCOW KERZHENSK	20 May 2018 15 Feb 2019	180250 18020313	Birth Transfer	VETLUJHKA	6430941100491559
672	F	22 May 2018	266	350	JARVZOO	22 May 2018	18010	Birth	ODA	
673	F	14 May 2018	266	261	JARVZOO	14 May 2018	JZM18009	Birth	OLIVIA	
674	M	26 May 2018	571	373	HUNBSTRND JARVZOO	26 May 2018 22 Mar 2019	218044 JZM19002	Birth Transfer	Light green KALLIO	968000010165152
675	F	28 May 2018	408	570	KERKRADE	28 May 2018 25 Jun 2018	M18138	Birth Death	Green 0004	528257000033825
676	M	21 May 2018	389	418	RANUA LAUHANVUO FINLAND	21 May 2018 9 Apr 2019 3 Dec 2019	218007 011 LIFE42	Birth Release	L.purple 011DIMI	
677	M	29 May 2018	408	569	KERKRADE	29 May 2018 16 Jun 2018	M18137	Birth Death	Yellow 002	528257000033830
678	F	20 May 2018	389	527	RANUA	20 May 2018 20 May 2018	218006	Birth Death		
679	F	21 May 2018	389	489	RANUA	21 May 2018 3 Jul 2018	218008	Birth Death	D.purple 003MINDI	
680	F	31 May 2018	408	367	KERKRADE PRAHA	31 May 2018 14 Mar 2019	M18141 190068	Birth Transfer	White 050 Gaia 40	528257000033829
681	F	31 May 2018	408	267	KERKRADE PRAHA	31 May 2018 14 Mar 2019 14 May 2019	M18142 190069	Birth Transfer Death	Brown 039 Gaia 41	528257000033824
682	F	31 May 2018	571	599	HUNBSTRND	31 May 2018 3 Jul 2018	218066	Birth Death	L.blue RINNE	968000010172686
683	F	3 Jun 2018	266	420	JARVZOO	3 Jun 2018 18 Jun 2018	JZM18011	Birth Death	OSA	
684	M	22 May 2018	401	431	PRAHA	22 May 2018 10 Oct 2018	180133	Birth Death		
685	M	25 May 2018	381	392	MOSCOW	25 May 2018	180277	Birth		
686	F	3 Jun 2018	337	586	BERN	3 Jun 2018	B80169	Birth		75609810081152
687	M	8 Jun 2018	464	462	KERZHENSK	8 Jun 2018	18010211	Birth	180102-11	
688	M	9 Jun 2018	454	456	PLEUGUEN	9 Jun 2018 25 Jun 2018	CR8	Birth Death		250229600071606
689	M	19 Jun 2018	454	452	PLEUGUEN	19 Jun 2018 19 Jun 2018	CR9	Birth Death		
690	M	15 Jun 2018	429	402	RIGA	15 Jun 2018 12 Sep 2018	M18096	Birth Death	MERKUIJS	900182001758111
691	M	19 May 2018	560	278	LYCKSELE	19 May 2018 14 May 2019	LRTS1801	Birth Death		
692	F	21 May 2018	560	374	LYCKSELE	21 May 2018	LRTS1802	Birth		
693	M	9 Jun 2018	482	439	AHTARI	9 Jun 2018 9 Jun 2018	218021	Birth Death		
694	F	28 Jun 2018	565	341	ROTTERDAM	28 Jun 2018 23 Jul 2018	Z18173	Birth Death	ELLA	528210004716843
695	F	28 Jun 2018	381	338	MOSCOW KERZHENSK	28 Jun 2018 15 Feb 2019	180337 18020414	Birth Transfer	VICHONKA	643094100491558
696	M	4 Jul 2018	565	581	ROTTERDAM	4 Jul 2018 28 Jul 2018	Z18183	Birth Death	SVEN	528210004716969
697	M	18 Jul 2018	602	426	LIBEREC	18 Jul 2018 18 Jul 2018	665008	Birth Death		
698	F	9 Jul 2018	600	440	AHTARI HELSINKI	9 Jul 2018 23 Oct 2019	218039 219103	Birth Transfer	Liliac 564 TONTTU	
699	F	28 Jul 2018	600	479	AHTARI	28 Jul 2018 3 Aug 2018	218044	Birth Death	Blue 373	

700	M	23 May 2018	MULT	558	LAUHANVUO	23 May 2018	700	Birth
Mult possible parents: Sires: 482 (75%), 653 (25%),								
					FINLAND	12 Dec 2019	UNK	Release
701	M	24 May 2018	WILD	654	SEITSEMIN	24 May 2018	701	Birth
					FINLAND	29 Nov 2019		Release
702	M	26 May 2018	480	491	SEITSEMIN	26 May 2018	702	Birth
					FINLAND	29 Nov 2019		Release
703	M	30 Jun 2018	653	403	LAUHANVUO	30 Jun 2018	703	Birth
					FINLAND	10 Sep 2019	UNK	Release

=====

=

TOTALS: 334.346.23 (703)

Compiled by: Leif Blomqvist thru Nordens Ark
 Data current thru: 30 Apr 2018 - European regional
 Printed on 29 Jul 2019 using Sparks v1.65

8.7. Location Glossary for FOREST REINDEER Studbook

AHTARI Zoo Ahtari

Karhunkierros 130, Ähtari, Finland, FI-63700

+358.6.5393.555 fax: +358.6.5393.611 heini.niinimaki@ahtarizoo.fi

Contact: Heini Niinimäki Data current to 6 Oct 2018

ARNHEM Burgers' Zoo

Antoon van Hooffplein 1, Arnhem, Gelderland, The Netherlands, 6816 SH

+31.26.445.0373 fax: +31.26.443.0776 m.giesen@burgerszoo.nl

Contact: Marleen Giesen Data current to 30 Dec 2017

AUGSBURG Zoologischer Garten Augsburg GmbH

Brehmplatz 1, Augsburg, Bavaria, Germany, D-86161

+49.821.567149.0 fax: +49.821.567149.13 barbara.jantschke@zoo-augsburg.de

Contact: Barbara Jantschke Data current to 6 Oct 2018

BERLIN TP Tierpark Berlin-Friedrichsfelde GmbH

Am Tierpark 125, Berlin, Germany, D-10307

+49.30.51531.111 fax: +49.30.512.4061 f.sicks@tierpark-berlin.de

Contact: Florian Sicks Data current to 20 Aug 2017

BERLINZOO Zoologischer Garten Berlin AG

Hardenbergplatz 8, Berlin, Germany, D-10787

+49.30.25.40.12.05 fax: +49.30.25.40.12.55 t.rahde@zoo-berlin.de

Contact: Tobias Rahde Data current to 1 Jun 2019

BERN Tierpark Dählhölzli

Tierparkweg 1, Bern, Switzerland, CH-3005

+41.31.357.1518 fax: +41.31.357.1510 marc.rosset@bern.ch

Contact: Dr. Marc Rosset Data current to 4 Jan 2018

BORAS Boras Djurpark Zoo

PO Box 502, Boras, Älvsborg, Sweden, S-503 13

+46.33.353273 fax: +46.33.105339 bo.kjellson@boraszoo.se

Contact: Bo Kjellson Data current to 20 Aug 2017

EUROPA Dierenrijk (Europa)

Heiderschoor 24, Mierlo, North Brabant, The Netherlands, 5731 RG

+31.492.668240 fax: +31.492.669241 s.rijnen@dierenrijk.nl

Contact: Alfred Melissen, Dvm, Curator

HANSURLES Reserve d'Animaux Sauvage

Rue J. Lamotte 2, Han-sur-lesse, Roche, Namur, Belgium, B-5580

+32.84377215 ebrunelle@grotte-dehan.be

Contact: Etienne Brunelle Data current to 20 Mar 2019

HELSINKI Helsinki Zoo

PO Box 4600, Helsinki, Finland, FI-00099

+358.8.169.5939 fax: +358.9.169.5990 hannamaija.lahtinen@korkeasaari.fi

Contact: Curator Hanna-Maija Lahtinen Data current to 20 Aug 2017

HILVARENB Safaripark Beekse Bergen

Beekse Bergen 31, Hilvarenbeek, North Brabant, The Netherlands, 5081 NJ

+31.13549.1209 fax: +31.13549.1203 l.versteeg@beeksebergen.nl

Contact: Mr. Lars Versteeg, Asst.curator

HUNBSTRND Nordens Ark

Åby Säteri, Hunnebostrand, Göteborg, Sweden, S-456 93

leif.blomqvist@nordensark.se

Contact: Leif Blomqvist Data current to 20 Aug 2017

JARVZOO Jarvzoo

Box 17, Jarvso, Gävleborg, Sweden, S-82040

+46.651.411.25 lina.jelk@jarvzoo.se

Contact: Lina Jelk Data current to 30 Nov 2017

KERKRADE GaiaZOO, Kerkrade

Postbus 68, Kerkrade, Limburg, The Netherlands, 6460 AB

+31.45.567.6070 fax: +31.45.567.6071 t.termeulen@gaiazoo.nl

Contact: Tjerk ter Meulen Data current to 30 Dec 2017

KERZHENSK Zapovednik Kerzhensky

Nizhny Novgorod, Russia

sgsurov@gmail.com

Contact: Sergei Surov Data current to 18 Dec 2014

KINGUSSIE Highland Wildlife Park

Kincraig, Kingussie, Highland, Scotland (uk), PH21 1NL

+44.1540.651.970 rpink@rzss.org.uk

Contact: Rebecca Pink Data current to 7 Jan 2019

KRONBERG Opel-Zoo von Opel Hessische Zoostiftung

Königsteiner Strasse 35, Kronberg, Hesse, Germany, D-61476

+49.6173.78670 fax: +49.6173.995279 thomas.kauffels@opel-zoo.de

Contact: Thomas Kauffels Data current to 30 Dec 2017

LAUHANVUO Lauhanvuori National Park

Lauhanvuorentie, Isojoki, Finland, FI-64930

milla.niemi@metsa.fi

Contact: Milla Niemi Data current to 1 Sep 2018

LIBEREC Zoologická zahrada Liberec

Masarykova 1347/31, Liberec, Severocesky, Czech Republic, CZ-460 01

+420.482.710.616 fax: +420.482.710.618 melichar@zooliberec.cz

Contact: Lubomir Melichar, Cur. Mammals

LUND Stiftelsen Skanes Djurpark

Jularp 150, Hoor, Skåne, Sweden, S-24393

carl@skanesdjurpark.se

Contact: Carl Bratt

LYCKSELE Lycksele Djurpark/Zoo

Box 505, Lycksele, Sweden, S-921 81

+46.950.16710 carola.stalfjall@lycksele.se

Contact: Carola Stålfjäll Data current to 20 Mar 2019

MAGDEBURG Zoologischer Garten Magdeburg

Zooallee 1, Magdeburg, Sachsen-anhalt, Germany, D-39124

+49.391.53.53.90.05 fax: +49.391.280.90.12 konstantin.ruske@zoo-magdeburg.de

Contact: Curator Konstantin Ruske

MOSCOW Moscow Zoological Park

Bolshaya Gruzinskaya Ulitsa, Moscow, Russia, 123242

+7.95.252.1053 fax: +7.95.973.2056 m.galeshchuk@moscowzoo.ru

Contact: Marina Galeshchuk Data current to 1 Feb 2017

PLEUGUEN Parc Zoologique de la Bourbansais

Pleugueneuc, Ille-et-vilaine, France, F-35720

+33.2.9969.4007 fax: +33.2.9969.4604 zoo.bourbansais@wanadoo.fr

Contact: Arnaud Dazord Data current to 15 Sep 2017

PLOCK Miejski Ogród Zoologiczny, Plock

ul. Norbertanska 2, Plock, Poland, 09-402

+48.24.366.05.27 fax: +48.24.366.0513 michal.popowski@zoo.plock.pl

Contact: Michail Popowski

PRAHA The Prague Zoological Garden

U Trojskeho Zamku 3/120, Praha, Czech Republic, CZ-171 00

+420.296.112226 fax: +420.296.112.226 dobiasova@zoopraha.cz

Contact: Curator Barbora Dobiasova Data current to 30 Dec 2017

RANUA Ranua Wildlife Park

Rovaniementie 29, Ranua, Finland, FI-97700

mari.heikkila@ranua.fi

Contact: Mari Heikkilä

RIGA Riga Zoo

Meza prospekts 1, Riga, Latvia, LV 1014

+371.6754.0444 fax: +371.6754.0011 guna.vitola@rigazoo.lv

Contact: Guna Vitola

ROTTERDAM Rotterdam Zoo

Diergaarde Blijdorp, Rotterdam, South Holland, The Netherlands, 3000 AM

+31.10.4431.411 fax: +31.10.4431.466 m.vis@diergaardeblijdorp.nl

Contact: Maarten Vis Data current to 1 Jul 2019

SALZBURG Salzburg Zoo Hellbrunn

Anifer Landesstr. 1, Anif, Salzburg, Austria, A-5081

+43.662.820176.12 fax: +43.662.820.1766 m.wiesner@salzburg-zoo.at

Contact: M. Wiesner Data current to 30 Dec 2017

SEITSEMIN Seitsemien National Park

Seitsemisentie 110, Ylojarvi, Finland, FI-34530

milla.niemi@metsa.fi

Contact: Milla Niemi Data current to 1 Sep 2018

SLOTTSKOG Slottsskogen Zoo

Park-och Naturforvaltningen, Goteborg, Sweden, SE-401 22

+46.31.365.5819 anna.schonstrom@ponf.goteborg.se

Contact: Anna Schönström Data current to 30 Dec 2017

TALLIN Tallinn Zoo

Paldiski Road 145, Tallinn, Estonia, EE-13522

+372.694.3310 fax: +372.657.8990 tiit.maran@tallinnzoo.ee

Contact: Mr. Tiit Maran