

European Studbook for Forest Reindeer, *Rangifer tarandus fennicus*, 2019



Leif Blomqvist

NORDENS
ARK



Foreword

Dear Forest reindeer holder,

Forest reindeer have been maintained as an European StudBook species (ESB) in European zoo collections since 2001. In April 2020, the EEP Committee approved the subspecies to be upgraded to the highest level of management (EEP) in the framework of the new EAZA Population Management Structure. Accordingly the SPARKS database will also be migrated into ZIMS in 2020.

At the same time I want to inform you all that I will step down as coordinator of the programme. This is therefore the last studbook report that will be compiled by me. I take the opportunity to thank **Sakari Mykrä**, Project Manager for WildForestReindeerLIFE and **Noam Werner**, EAZA Deer TAG Chair, for reviewing and providing constructive and valuable comments on earlier drafts of the manuscript. **Milla Niemi** (WildForestReindeerLIFE) has kindly allowed me to use her photos from the on-site breeding facilities for forest reindeer in Finland. Their aid has been very helpful during the completion of this document and my sincere thanks go to all three colleagues.

It has been a great privilege to act as a coordinator for two decades and I want to thank all holders for your kind cooperation and support over all these years. My successor as EEP Coordinator will be curator **Hanna-Maija Lahtinen from Helsinki Zoo** (hannamaija.lahtinen@korkeasaari.fi). I hope and trust that you will provide her with regular updates from your collections to make the shift in coordination as smooth as possible.

All the best to all of you,
Leif Blomqvist

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



Index

Foreword	
Starting point for forest reindeer reintroductions	
1. Review of main events in captive population	4
1.1. Six potential founders caught to improve gene diversity	6
1.2. Demographic and genetic status in 2019	7
2. <i>In situ</i> activities	9
2.1. Supplementation attempts in Central Finland	9
2.2. Reintroductions in Seitsemien and Lauhanvuori NPs	10
3. References	11
4. Studbook	12
4.1. Living population ordered by location 1.1.2020	12
4.2. Forest reindeer births 2019	19
4.3. Wild-caught forest reindeer 2019	21
4.4. Forest reindeer deaths 2019	21
4.5. Forest reindeer transfers 2019	23
4.6. Released forest reindeer 2019	24
4.7. Location glossary	26

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 2020 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, however, 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.

Reference: Blomqvist, L. (2020): European Studbook for forest reindeer 2019. Nordens Ark Foundation

Starting point for forest reindeer reintroductions



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

© Milla Niemi

The Eurasian forest reindeer, Rangifer tarandus fennicus, is a threatened and rare subspecies of wild reindeer native to Finland and the northwestern parts of Russia. Forest reindeer differ from semi-domestic reindeer mainly in their larger size, their longer legs, narrow skull and large and upright antlers, which all are excellent adaptations to the subspecies' preference for a life in dense boreal forests with thick snow covers in winter. Due to excessive hunting in the 19th Century the Finnish population crashed and although the subspecies was fully protected in 1913, forest reindeer vanished from the Finnish fauna around the 1920s. Fortunately small remnants survived on the Russian side of the border and in the 1950s, single individuals were again observed in eastern Finland. In the late 1950s, the first post-war reproduction took place in Finland. Thanks to intensive protection efforts, the subspecies was re-established as part of the Finnish fauna and started slowly to expand in the 1970s. The current Finnish population is divided into three subpopulations: one in the eastern parts of the country (Kuhmo), one in central Finland (Suomenselkä) originating from individuals translocated from Kuhmo (Bisi & Härkönen 2007; Blomqvist & Richardson 2012), and finally a small splinter population of approx. 20 animals in the Ähtäri-Karstula area descending from individuals released from Ähtäri Zoo between 1988 and 1993 (Blomqvist 2004; Bisi & Härkönen 2007; Blomqvist & Mykrä 2017).

1. Review of main events in captive population

The inventory for the captive population in 2019 reveals that 53 (24.26.3) forest reindeer calves were born (Table 1), 74% of which survived. Fecundity in captive-born forest reindeer has been described in the 2018 Studbook (Blomqvist 2019) and the breeding results from 2019 confirm earlier reported reproductive data. Forest reindeer have a low reproductive potential and among the 732 calves that have been born in captivity between 1980 and 2019, twin births have been recorded only twice. The total number of individuals that have reproduced at least once during their life-time totals 257 (76.181) individuals. Reproductive data shows that females start reproducing during their third year of life and continue to do so until they are 13 years old. Only five captive-born females have delivered calves when they were 14 years old and the oldest cow to reproduce was 15 years when she gave birth to her last calf (Table 2). Bulls reach sexual maturity at the same age as cows but stop producing calves somewhat earlier than females. As mentioned by Blomqvist (2019), the shorter fecundity in males does, however, not reflect the biological potential of the bulls, but rather indicates the results of management practices to avoid inbreeding in captive collections.

Table 1. Summary of events 2019.

Born	53 (24.26.3)
Did Not Survive	14 (8.3.3)
Wild-caught arrivals	6 (3.3)
Released	22 (17.5)
Total deaths	30 (15.12.3)
Status 1.1.2020	174 (58.116)

Table 2. Reproductive parameters in captive-bred forest reindeer.

Filters applied to parents:

Dates: 1 Jan 1980 - 1 Jan 2020

Birth Type: Captive Born

=====
 Taxon Name: *Rangifer tarandus fennicus*
 =====

Gestation period set to 227 days, ~7.5 months.

Ages are as of parturition for dams, as of conception for sires.

DAM DATA: 172 reported dams, with 341.342.25 (708) offspring

Youngest dams at first reproduction:

- 354 at HELSINKI had baby 417 (d<30 days) at age 1Y,9M,15D 'BAJAJAGA'
- 25 at HELSINKI had baby 37 at age 1Y,10M,25D 'HELGA'
- 640 at SEITSEMIN had baby 750 at age 1Y,11M,4D 'JUOLUKKA'
- 312 at HELSINKI had baby 379 (d<30 days) at age 1Y,11M,10D 'AINO'
- 418 at RANUA had baby 482 at age 1Y,11M,11D 'DIMMA'
- 18 at HELSINKI had baby 30 (d<30 days) at age 1Y,11M,12D 'MILKA'
- 106 at HUNBSTRND had baby 121 (d<30 days) at age 1Y,11M,12D 'RENEE'

Oldest dams at first reproduction:

- 332 at ROTTERDAM had baby 609 (d<30 days) at age 8Y,0M,3D 'KAARINA'
- 88 at BORAS had baby 162 at age 7Y,0M,5D 'LOITSU'
- 426 at LIBEREC had baby 697 (stillb/prem) at age 6Y,2M,6D 'YKSI'
- 97 at HELSINKI had baby 156 at age 6Y,0M,2D 'MIELIKKI'
- 392 at MOSCOW had baby 588 at age 5Y,11M,21D 'MANJA'
- 104 at RANUA had baby 166 at age 5Y,1M,13D 'NANNA'
- 452 at PLEUGUEN had baby 689 (stillb/prem) at age 5Y,1M,11D
- 367 at KERKRADE had baby 510 at age 5Y,0M,28D 'GAIA 16'

Oldest dams to have reproduced:

- 38 at RANUA had baby 187 at age 15Y,0M,4D 'NELLI'
- 158 at JARVZOO had baby 593 at age 14Y,11M,25D 'URSULA'
- 172 at RANUA had baby 525 at age 14Y,1M,9D 'MAIRE'
- 88 at BORAS had baby 330 at age 14Y,0M,6D 'LOITSU'
- 115 at RIGA had baby 402 at age 14Y,0M,1D 'RANUA'
- 101 at AHTARI had baby 388 at age 13Y,11M,24D 'JANIKA'
- 38 at RANUA had baby 164 at age 13Y,11M,23D 'NELLI'
- 158 at JARVZOO had baby 574 at age 13Y,11M,15D 'URSULA'

FEMALES	Median	Average	N
Age at first reproduction:	2Y,11M,9D	2Y,11M,11D	172
During all reproduction:	5Y,0M,10D	5Y,10M,1D	707
Age at last reproduction:	6Y,0M,12D	6Y,10M,1D	172

SIRE DATA: 70 reported sires, with 316.308.26 (650) offspring

Youngest sires at first reproduction:

- 240 at LYCKSELE had baby 277 at age 1Y,3M,8D 'ESA'
- 646 at LYCKSELE had baby 761 at age 1Y,3M,12D 'PAKKILA'
- 645 at RANUA had baby 745 at age 1Y,3M,18D 'DUOMAS'
- 137 at HELSINKI had baby 153 at age 1Y,4M,16D 'RUDOLPH'
- 560 at LYCKSELE had baby 648 at age 1Y,4M,16D 'VIKING'
- 506 at SALZBURG had baby 604 at age 1Y,4M,19D
- 619 at RANUA had baby 760 at age 1Y,4M,19D 'MASA'
- 86 at RANUA had baby 105 at age 1Y,4M,24D 'EERIKKI'

Oldest sires at first reproduction:

- 19 at BORAS had baby 64 at age 6Y,3M,27D 'RUDOLF'
- 89 at AHTARI had baby 150 at age 5Y,4M,11D 'KONSTA'
- 184 at KERKRADE had baby 317 at age 5Y,4M,2D 'NELIS'
- 176 at ARNHEM had baby 314 at age 5Y,3M,28D 'JARI'
- 81 at HUNBSTRND had baby 128 at age 4Y,5M,23D 'VILLE'
- 136 at BERN had baby 234 at age 4Y,4M,29D 'LEIF'
- 337 at KERKRADE had baby 508 at age 4Y,4M,23D 'JOHAN'
- 461 at MOSCOW had baby 670 at age 4Y,4M,17D

Oldest sires to have reproduced:

187 at ROTTERDAM had baby 609 at age 13Y,4M,18D 'PUMMEL'
 116 at HUNBSTRND had baby 386 at age 12Y,5M,13D 'INTO'
 116 at HUNBSTRND had baby 378 at age 12Y,4M,29D 'INTO'
 116 at HUNBSTRND had baby 373 at age 12Y,4M,22D 'INTO'
 116 at HUNBSTRND had baby 372 at age 12Y,4M,20D 'INTO'
 187 at ROTTERDAM had baby 581 at age 12Y,4M,12D 'PUMMEL'
 266 at JARVZOO had baby 735 at age 12Y,4M,9D 'CIRIUS'
 266 at JARVZOO had baby 733 at age 12Y,3M,29D 'CIRIUS'

MALES	Median	Average	N
Age at first reproduction:	2Y,4M,21D	2Y,8M,13D	70
During all reproduction:	4Y,4M,23D	5Y,0M,16D	628
Age at last reproduction:	4Y,5M,22D	5Y,6M,14D	70

Compiled by: Leif Blomqvist thru Nordens Ark
 Data current thru: 1 Jan 2020 - European regional
 Printed on 31 Mar 2020 using Sparks v1.65

As a total of 30 (15.12.3) reindeer died in 2019, and 22 (17.5) individuals were released (see 2. *In situ* activities), the number of animals lost in the programme came to 52 (32.17.3). Despite the high number of lost animals, the captive population showed a net increase of 12 individuals compared to the previous year when 58.104 animals were living in European collections (Blomqvist 2019). The inventory for 2019 shows that the captive population expanded to 174 (58.116) animals spread over 26 institutions in 13 European countries (Figure 1). All participating institutions in the ESB-population except three (Lauhanvuori and Seitsemien National Parks in Finland, Kerzhensky Nature Reserve in Russia) are EAZA members. The fluctuations in the captive population from 2000 to late 2019 are illustrated in Figure 2 showing a steady expansion from 45 individuals in 2000 to 174 by the end of 2019.

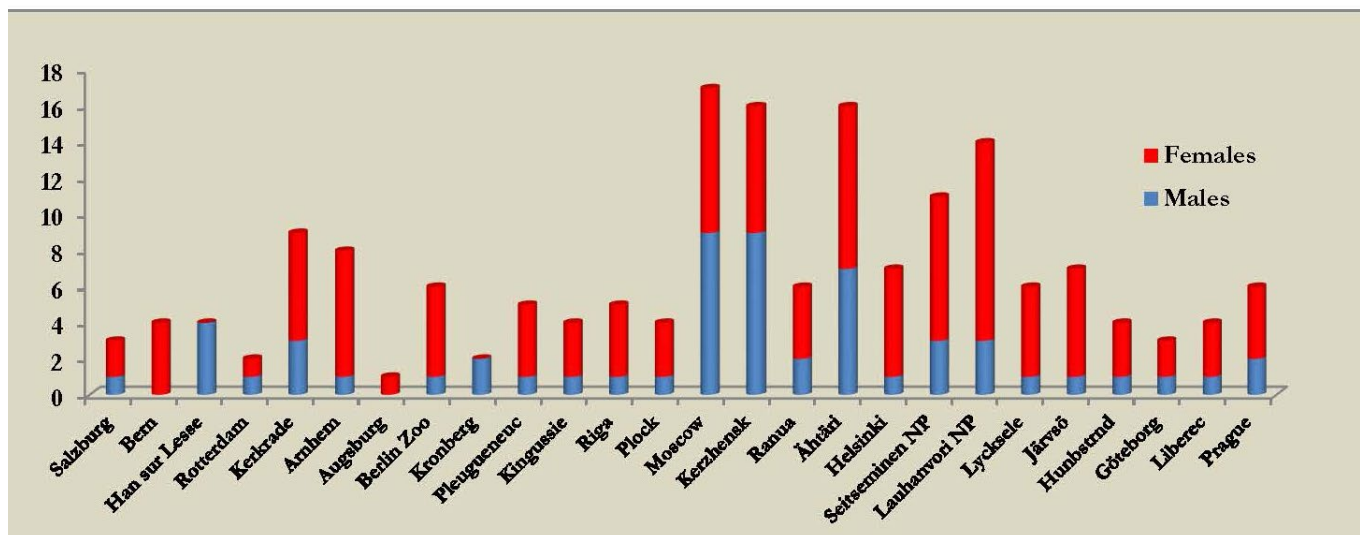


Figure 1. Number of forest reindeer kept in captivity 1.1.2020

1.1. Six potential founders caught to improve gene composition

The most significant event during the year was the arrival of six wild-caught animals listed in the studbook in Section 4.3. Two bulls were captured from the reintroduced population in Suomenselkä in mid-Finland and transferred to the breeding enclosures in Seitsemien and Lauhanvuori National Parks to replace the wild-born males that had been used for breeding in 2018 and 2019. To improve the genetic composition in the zoo-population, the previous breeding males were transferred to the zoos in Ähtäri and Ranua in 2019.

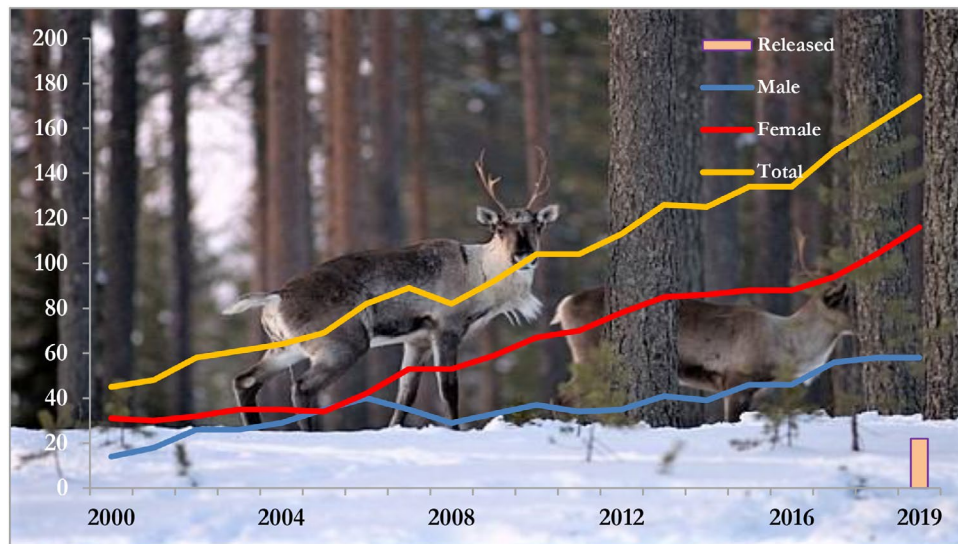


Figure 2. Development of captive population 2000-2019.

In March 2019, a cow and her yearling female calf were caught in eastern Finland and transported to the on-site breeding facility in Lauhanvuori NP to increase gene diversity (GD) among the animals that will be reintroduced and, at a later stage, also in the ESB-stock (Figure 3). A pair was also caught in the district of Krasnoborsk in the Arkhangelsk Province (oblast) in north-western Russia and transferred to the breeding center in Kerzhensky Nature Reserve. Whether these two animals belong to the subspecies *fennicus* has yet to be investigated but so far they have been included in the studbook. To avoid possible hybridization, Kerzhensky Reserve has agreed to keep the two animals separated from their pure *R. tarandus fennicus* stock until their classification will be clarified.



Figure 3. Four wild-born individuals were caught in Finland in 2019. Photo: Milla Niemi

1.2. Demographic and genetic status in 2019

Thanks to the successful breeding of five founders, two of which reproduced for the first time in 2019, GD increased from 0.847 in 2018 (Blomqvist 2019) to 0.856 in 2019. The level of inbreeding showed a slight decrease from 12.7% to 12.5% (Table 3). The ratio of the effective population size (N_e) to the actual population size (N) is often quoted as a good indicator of the demographic and genetic health status of a population informing the rate at which GD has been lost. In wild populations the N_e/N is reported to lie at approximately 0.1 (Frankham 1995), whereas it mostly is much larger in captive populations. Among forest reindeer where breeding has been proactively managed for almost two decades, the N_e/N ratio is 0.29 (Table 3) and falls within the range of 0.2 to 0.4 usually reported in captive populations (Mace 1986; Frankham et al. 2002). Simultaneously the effective population size increased from 42.5 in the previous year to 51.5 in 2019 (Blomqvist 2019).

Table 3 . Demographic/genetic summary of captive population 1.1.2020

	Current	Potential
Population size (N)	174 (58.116)	
Number of descendants	165 (53.112)	
Number of founders represented in population	15	4 (3.1)
Percent known	100%	
Effective population size (Ne)	51.5	
Ne/N	0.29	
Generation length in years (T)	5.7	
Percent population change/year (λ)	1.08	
Gene diversity (GD)	0.86	0.97
Mean kinship (MK)	0.143	
Fnd genome equivalents (Fge)	3.5	14.9
Mean inbreeding coefficient (F)	0.125	

Although 26 (12.14) wild-born forest reindeer have arrived into captivity, only 14 (6.8) have reproduced. Lack of breeding success among the six males and six females that did not breed may depend on a variety of reasons such as unsuccessful management in the past, their advanced age or because of their possible poor health status. Some of the original founders also show a marginal representation in the current population (Figure 4), whereas four deceased founders (stbk. numbers 5, 7, 9, 223) exhibit a very large representation equaling 73% of the total gene pool. Figure 4 also reveals that the wild-caught animals that have arrived after 2017 (stbk. numbers 652-713), have not yet produced enough descendants to substantially equalize the founder representation. The disproportionate breeding results among the founders and their descendants therefore illustrate a highly skewed representation among the wild-caught animals. Lacy has pointed out (1989), that populations with unequal founder representations contain less GD than populations with the same number of founders, but where the founders have contributed more equally to future generations. The disproportionate founder contribution among forest reindeer is, however, far from unique and breeding history of most captive populations show that different founder lineages have been propagated in similar disproportionate manners. As the current population still contains 11 animals that have been wild-born or conceived in the wild, including four that have not bred yet, there are reasons to predict that GD can be significantly improved already in 2020, and in the years to come. The total number of breeders alive at the end of 2019, is 86 (20.66) individuals, 81 (18.63) of which are captive-born.

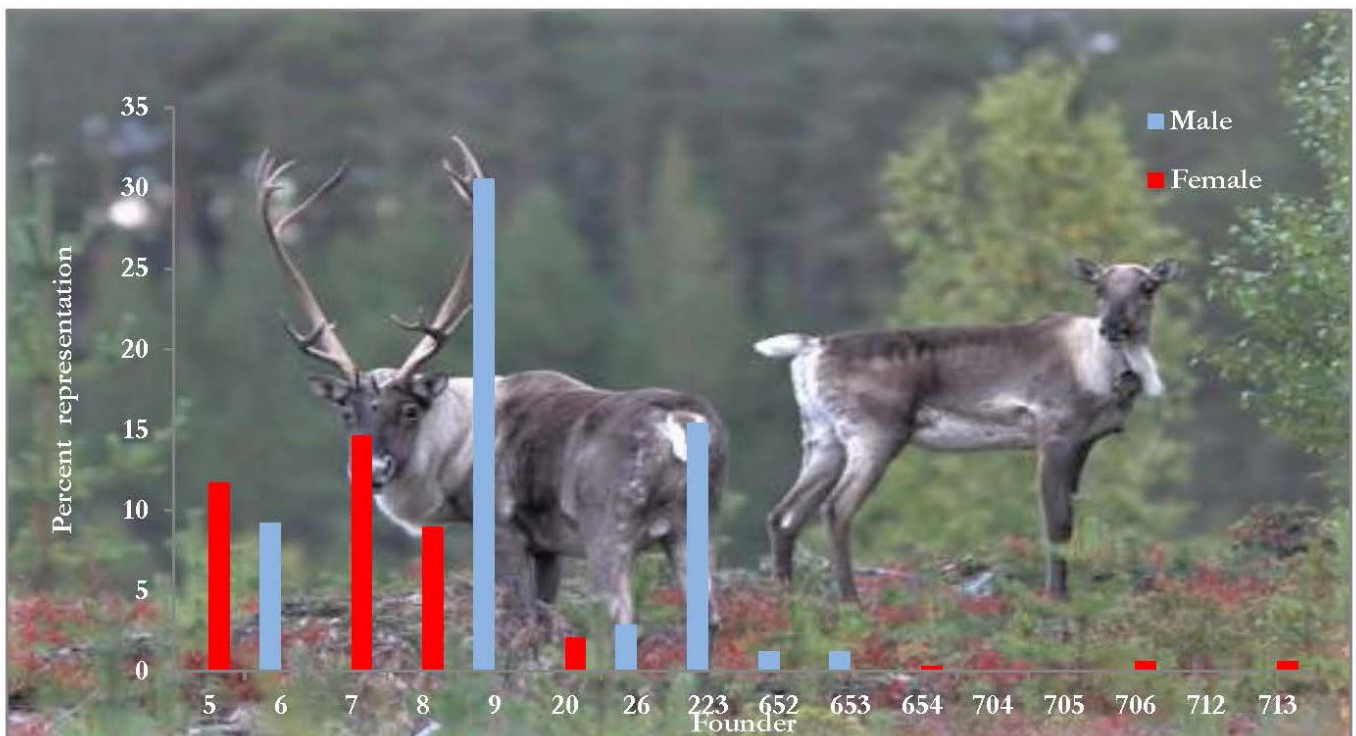


Figure 4. Proportional representation of founders in ex situ population of forest reindeer at the end of 2019

Because of bottleneck effects and the uneven reproductive success among the founders, the ESB population has lost 14 % of its GD during the forty-six years the subspecies has been maintained in captivity. The current stock of 174 individuals thus displays the same amount of diversity one finds in roughly three to four wild-born individuals ($F_{ge}=3.5$). Although the average level of inbreeding lies on 12.5%, there are no visible signs of inbreeding depression in the captive stock. As loss of genetic variability, associated with inbreeding and genetic drift is known to increase the probability of extinction in small populations, reasons for concern do remain. However, the current age distribution with its pyramid-like structure (Figure 5), where 45% of all animals are 0-3 years old and soon will reach sexual maturity, offers grounds for optimism. The mean population growth during the last five years has been 8.5%, and indicates that the captive population will reach a size of approx. 250 individuals after four years. Worth remembering is, however, that the majority of the captive-bred animals in the Finnish facilities will be used for reintroduction and the predicted population size will therefore be substantially smaller.

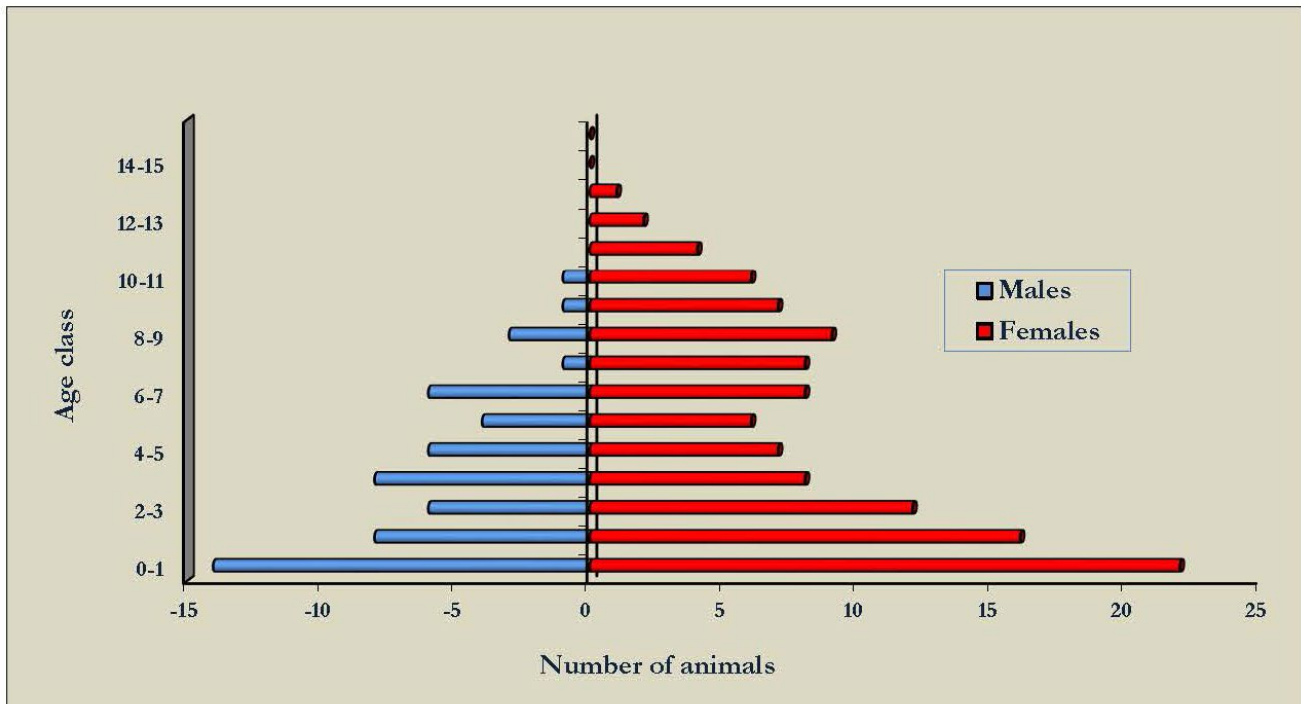


Figure 5. Age and sex distribution of captive population 1.1.2020

2. *In situ* activities



2.1. Supplementation attempts in Central Finland

To boost the small wild population in the Ähtäri-area in central Finland, supplementations with captive-born animals started in 2019. A six hectare large “transit” enclosure that had been built in Aittosuo Natural Reserve in 2018, acquired its first captive-bred animals the very same year. The fragmented wild population which descends from individuals reintroduced from Ähtäri Zoo 30 years ago (*Bisi & Härkönen 2007; Blomqvist 2019*) has never taken root and an inflow of new genes was already suggested in the species’ management plan in 2007 (*Ministry of Agriculture & Forestry*), and yet again, repeated nine years later in the WildForestReindeerLIFE project ([LIFE15 NAT/FI/000881](#)).

The release of five bulls from the zoos in Ranua and Helsinki took place in May 2019 when an abundance of food is available. The released animals, however, behaved untypically and sought the vicinity of main roads and human settlements (Figure 6). The local hunting society strived for scaring off the animals with hunting dogs, but despite all attempts, one of the bulls was killed in a car accident two months after the release. The animals’ fearless behaviour was probably caused by a temporary heat wave resulting in swarms of mosquitoes. Insect swarms are known to plague reindeer during heat waves and to avoid their tormentors, reindeer often move to open and windy areas. When the heat wave passed, the bulls started to move away from human settlements, but only to return when the winter approached. Two males which were clearly starved and searching for food, were both fretless and behaved aggressively towards humans. One bull was eventually hit by a car, and to avoid further accidents, the decision was taken to euthanize both males. Because of the severe setback, new supplementation attempts will be re-evaluated before further releases in the Ähtäri area will be undertaken.



Figures 6. Herds of mosquitoes drove the released reindeer to open areas such as roads and human settlement areas. Photo: S. Seitakallio

2.2. Reintroductions in South-western Finland

Because of their suitable biotopes two national parks, Lauhanvuori and Seitsemien, belonging to the Natura 2000 network and located 60km apart (Figure 7), have been selected as reintroduction sites (Blomqvist 2018; 2019). The area was inhabited by forest reindeer 200 years ago and it is hoped that the reintroduced populations will start increasing and eventually merge with the core population. If the reintroductions prove to be successful, the national parks might serve as future core areas for wild reindeer and facilitate the subspecies to reclaim its historical range in the south-western parts of the country.

The first five calves had been born in the on-site breeding enclosures in 2018 (Blomqvist 2019), and one year later, 14 out of 15 adult females reproduced. Fourteen calves were born in the two enclosures in 2019, and all except a male calf which was found dead in Seitsemien, survived (Section 4.2).

The reintroductions started in September in Lauhanvuori NP, prior to the rutting season when four sub-adult males that could have disturbed

the rut were released. The release was followed up on two later occasions when a cow with calf, three yearling males and another adult female that did not reproduce in 2019, were released. Unfortunately the adult dam was found dead later after she had entangled with an electric wire encircling the on-site enclosure.

In November two captive-born females with calves and three yearling bulls were released from the enclosure in Seitsemien NP (Section 4.6). Prior to their release, the females were provided with GPS collars while the young bulls were marked with small GPS transmitters glued to the pelt. All released individuals were equipped with coloured LIFE ear tags to facilitate monitoring in the field. The animals have been carefully monitored and have proved to remain in vicinity of the on-site enclosures where they have been offered supplemental feeding during their first winter in the wild.

The reintroductions were planned six years ago when only occasional observations of solitary wolves were reported from the reintroduction areas. Wolf predation is known to be the most significant mortality factor among forest reindeer females in Finland (Kojola *et al.* 2009), and the absence of wolves was therefore one of the key reasons for selecting the above mentioned national parks as new reintroduction sites. Since then the number of wolves in the region has changed dramatically, and currently a minimum of 7-8 established wolf territories exist within 100 km of the reintroduction sites. Wolves are strictly protected throughout Southern Finland, and preventive wolf control to secure the survival of reintroduced reindeer is therefore not an option. If sudden bouts of wolves take place, the achieved results can quickly turn out to be in jeopardy and the current situation therefore requires careful scrutiny.

Although the reintroductions are the most spectacular part of the seven-year EU-funded LIFE project, they only constitute a fifth of the project's total budget. The project comprises a vast range of measures to promote reindeer expansion, covering human-caused disturbances and solutions to reduce traffic accidents (Blomqvist & Mykrä 2017; LIFE15 NAT/FI/000881). By monitoring the released individuals, information of landscape utilization and habitat requirements can be acquired that provide information how to restore new habitats and offer instructions on management practices also for commercial forests. For the captive population, the EU project has offered a unique opportunity to diversify its gene composition and opens new opportunities to participate in further reintroduction attempts when such will become available.

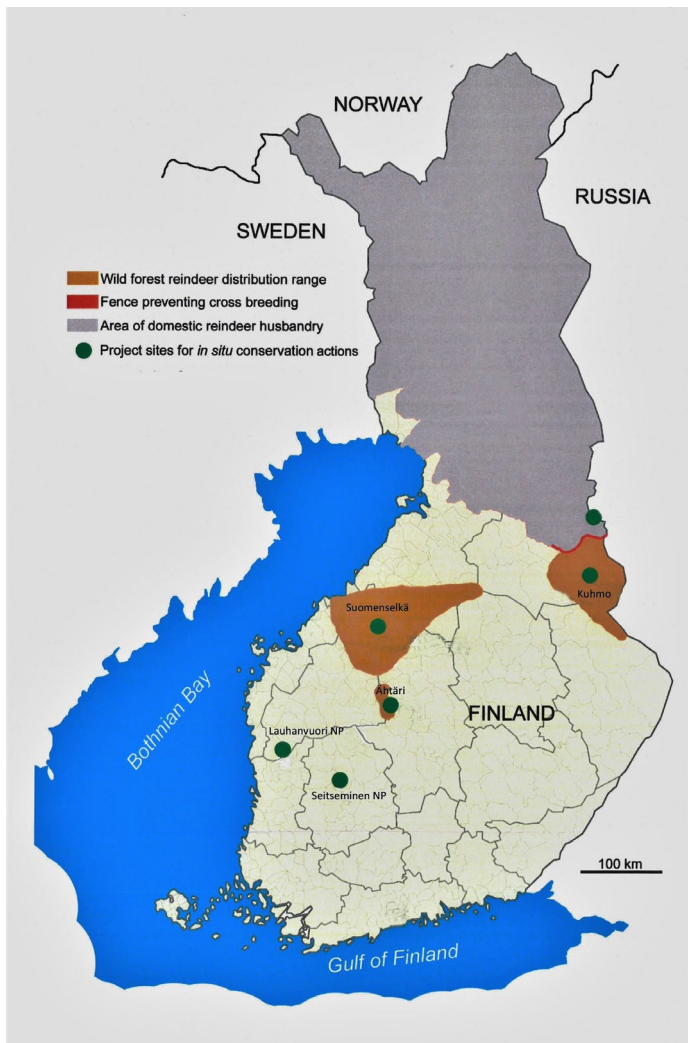


Figure 7. Current distribution and reintroduction sites in Finland

3. References

- Bisi, J. and S. Härkönen (2007):** *Status of the wild forest reindeer population. Management Plan for the Wild Forest Reindeer Population in Finland.* pp. 21-26. <http://urn.fi/URN:ISBN:978-952-453-372-0>
- Blomqvist, L. (2004):** *Numbers of forest reindeer increasing both in situ and ex situ.* *Helsinki Zoo Ann. Rep. 2003:* 29-34. Helsinki Zoo
- Blomqvist, L. & D. M. Richardson (2012):** *The forest reindeer: A success story of a large herbivore in Europe. European studbook for forest reindeer, Rangifer tarandus fennicus, 2011.* pp. 3-7. Nordens Ark Foundation
- 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.* *European studbook for forest reindeer, Rangifer tarandus fennicus, 2017:* 4-11. Nordens Ark Foundation
- Blomqvist, L. (2019):** *2018 Update for Forest Reindeer ESB. European Studbook for Eurasian forest reindeer Rangifer tarandus fennicus 2018:* 4-13. 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
- 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
- Lacy, R. C. (1989):** *Analysis of founder representation in pedigrees: Founder equivalents and founder genome equivalents.* *Zoo Biol.* 8: 111-123
- Mace, G. M. (1986):** *Genetic management of small populations.* *Int. Zoo Yearb.* 24/25: 167-174
- Ministry of Agriculture & Forestry (2007):** *Management Plan for the Wild Forest Reindeer Population in Finland.* <http://urn.fi/URN:ISBN:978-952-453-372-0>
- WildForestReindeerLIFE project:** ([LIFE15 NAT/FI/000881](https://ec.europa.eu/life/projects/actions/operations/000881/))

4. Studbook

4.1. Living population ordered by location 1.1.2020. Changes taking place after 1.1.2020 marked in red.

FOREST REINDEER Studbook

Restricted to: (*Rangifer tarandus fennicus*)

Status: Living on 1 Jan 2020

Report ordered by: current/last location (geographic)

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

Salzburg Zoo Hellbrunn, Anif, Salzburg, Austria

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

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
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: 4.0.0 (4)

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 24 Feb 2020	B30053 CR2	Birth Transfer Death			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
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

716	F	14 May 2019	337	407	ARNHEM	14 May 2019	9273	Birth	Red		528257000086646
-----	---	-------------	-----	-----	--------	-------------	------	-------	-----	--	-----------------

Totals: 1.7.0 (8)

GaiaZOO Kerkrade, Kerkrade, Limburg, The Netherlands

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
727	M	25 May 2019	408	639	KERKRADE KREFELD	25 May 2019 15 Jan 2020	M19424 2503	Birth Transfer	Roze 025	Gaia 46	528210004989608
734	M	28 May 2019	408	570	KERKRADE KRONBERG	28 May 2019 3 Mar 2020	M19428 4398	Birth Transfer	Green 007	Gaia 47	528210004989630

Totals: 3.6.0 (9)

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

Totals: 1.1.0 (2)

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
746	F	15 May 2019	532	547	PLOCK	15 May 2019	A20695	Birth			

Totals: 1.3.0 (4)

Tierpark Dählhölzli, 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
586	F	12 May 2016	408	430	ARNHEM BERN	12 May 2016 4 Jan 2018	7056 B80001	Birth Transfer	PURPLE	OONA	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: 0.4.0 (4)

Zoologischer Garten Augsburg GmbH, Augsburg, Bavaria, Germany

655	F	7 May 2018	337	397	ARNHEM AUGSBURG	7 May 2018 28 Feb 2019	8295 2019AH	Birth Transfer	YELLOW	RANA	528257000048768
-----	---	------------	-----	-----	--------------------	---------------------------	----------------	-------------------	--------	------	-----------------

Totals: 0.1.0 (1)

Zoologischer Garten Berlin Ag, Berlin, Germany

322	F	16 May 2008	219	115	RIGA	16 May 2008	M08137	Birth		RAGNA	428098100000223
					BERLIN TP	26 Feb 2010		Transfer			
					BERLINZOO	24 Mar 2010	M0800019	Transfer			
343	F	16 May 2009	219	220	RIGA	16 May 2009	M09070	Birth		SOCKE	428098100000125
					BERLIN TP	26 Feb 2010		Transfer			
					BERLINZOO	24 Mar 2010	M0900027	Transfer			
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
						22 May 2020		Death			
597	M	20 May 2016	429	400	RIGA	20 May 2016	M16097	Birth			985141000868116
					BERLINZOO	26 Nov 2018	M1600166	Transfer			

Totals: 1.5.0 (6)

Opel-Zoo Von Opel HessischeZoostiftung, Kronberg, Hesse, Germany

459	M	4 Jun 2013	219	298	RIGA	4 Jun 2013	M13096	Birth		LIETUTINS	98511000344060
					KRONBERG	26 Oct 2015	2744	Transfer			
663	M	13 May 2018	401	447	PRAHA	13 May 2018	180109	Birth	White		900008800526412
					KRONBERG	10 Dec 2018	4145	Transfer			

Totals: 2.0.0 (2)

The Prague Zoological Garden, Praha, Czech Republic

401	M	19 May 2011	219	298	RIGA	19 May 2011	M11060	Birth		LORDS	985170000942082
					PRAHA	28 Oct 2013	130427	Transfer			
431	F	17 May 2012	311	284	BERN	17 May 2012	B20077	Birth			7560998100562596
					PRAHA	9 Oct 2013	130383	Transfer			
447	F	10 May 2012	316	317	KERKRADE	10 May 2012	M12019	Birth	PINK 001	GAIA 19	528093490007253
					PRAHA	6 Nov 2013	130451	Transfer			
680	F	31 May 2018	408	367	KERKRADE	31 May 2018	M18141	Birth	White 050	Gaia 40	528257000033829
					PRAHA	14 Mar 2019	190068	Transfer			
						29 May 2020		Death			
723	M	12 May 2019	401	447	PRAHA	12 May 2019	190106	Birth			276098106513207
					AUGSBURG	21 Jan 2020	2020AM	Transfer			
724	F	20 May 2019	401	431	PRAHA	20 May 2019	190107	Birth			941000022675780
					KREFELD	9 Jan 2020	2502	Transfer			

Totals: 2.4.0 (6)

Zoologicka Zahrada Liberec, Liberec, Severocesky, Czech Republic

426	F	12 May 2012	330	259	HUNBSTRND	12 May 2012	212032	Birth	ROSA/ROSA	YKSI	977200008167014
					LIBEREC	10 May 2013	665001	Transfer			
428	F	14 May 2012	330	307	HUNBSTRND	14 May 2012	212035	Birth	WHITE/WHITE	KAKSI	977200008167119
					LIBEREC	10 May 2013	665002	Transfer			
602	M	28 May 2016	337	367	KERKRADE	28 May 2016	M16234	Birth	BROWN	TEEMU	528257000004301
					LIBEREC	28 Sep 2017	665007	Transfer			
664	F	16 May 2018	401	446	PRAHA	16 May 2018	180110	Birth		SAANA	203094100001580
					LIBEREC	11 Mar 2019	665009	Transfer			

Totals: 1.3.0 (4)

Highland Wildlife Park, Kingussie, Highland, Scotland (UK)

469	F	24 May 2013	330	373	HUNBSTRND	24 May 2013	213041	Birth	Orange	SAHTI	968000010082569
					KINGUSSIE	8 May 2014	5759	Transfer			
591	M	22 May 2016	408	397	ARNHEM	22 May 2016	7055	Birth	WHITE	SVEN	528257000004181
					KINGUSSIE	25 Oct 2017	6058	Transfer			
608	F	30 May 2016	401	431	PRAHA	30 May 2016	160161	Birth		FREYA	941000019122241
					KINGUSSIE	25 Oct 2017	6057	Transfer			

722	F	22 May 2019	591	469	KINGUSSIE	22 May 2019	6135	Birth		TUULI	953010002590575
-----	---	-------------	-----	-----	-----------	-------------	------	-------	--	-------	-----------------

Totals: 1.3.0 (4)

Zoo Ähtäri, Ähtäri, Finland

375	F	13 May 2010	266	261	JARVZOO AHTARI	13 May 2010 16 Apr 2013	JZM10010 213005	Birth Transfer	YELLOW 28	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	GREEN 273	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 562	ILMARI	934000011107143
600	M	24 May 2016	270	458	HELSINKI AHTARI	24 May 2016 30 Oct 2017	216043 217038	Birth Transfer	GREEN	IIVARI	934000011107147
631	F	21 May 2017	482	440	AHTARI	21 May 2017	217017	Birth	White 162	MONA	
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
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	
719	M	15 May 2019	600	479	AHTARI SEITSEMIN	15 May 2019 22 Apr 2020	219027 ERIK	Birth Transfer	Yellow 10 Violet 59	EERIK	
720	F	22 May 2019	585	439	AHTARI SEITSEMIN	22 May 2019 22 Apr 2020	219028 RAUNI	Birth Transfer	Green 27 Orange 17	RAUNI	
721	M	23 May 2019	585	505	AHTARI SEITSEMIN	23 May 2019 22 Apr 2020	219029 TAPIO	Birth Transfer	Blue 33 Green 23	TAPIO	
730	F	27 May 2019	585	375	AHTARI SEITSEMIN	27 May 2019 22 Apr 2020	219030 KIIRA	Birth Transfer	Orange 11 Violet 54	KIIRA	
732	M	1 Jun 2019	600	631	AHTARI SEITSEMIN	1 Jun 2019 22 Apr 2020	219033 MÄKSÄ	Birth Transfer	White 73 Grey 47	MÄKSÄ	

Totals: 7.9.0 (16)

Seitseminen National Park, Ylöjärvi, Finland

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
594	F	20 May 2016	389	418	RANUA SEITSEMIN	20 May 2016 15 Nov 2017	216023 19	Birth Transfer	Green 19	DIDI	978101080835409
636	F	7 Jun 2017	567	458	HELSINKI SEITSEMIN	7 Jun 2017 6 Oct 2018	217040 JOIKU	Birth Transfer	Red	JOIKU	934000011107127
640	F	12 Jun 2017	567	369	HELSINKI SEITSEMIN	12 Jun 2017 6 Oct 2018	217049 JUOLUKKA	Birth Transfer	Green	JUOLUKKA	943000011107122
654	F	~ 2011	WILD	WILD	FINLAND SEITSEMIN	7 Nov 2017 8 Nov 2017	NONE YELLOW87	Capture Transfer	Yellow		978101081038436
665	F	16 May 2018	567	485	HELSINKI SEITSEMIN	16 May 2018 7 Oct 2019	218008 KAARNA	Birth Transfer	L.green	KAARNA	934000011107191
705	M	~ 2014	WILD	WILD	FINLAND SEITSEMIN	26 Feb 2019 26 Feb 2019	NONE 705	Capture Transfer			
747	M	12 May 2019	652	594	SEITSEMIN	12 May 2019	747	Birth			
749	F	16 May 2019	652	654	SEITSEMIN	16 May 2019	749	Birth			
750	F	16 May 2019	652	640	SEITSEMIN	16 May 2019	750	Birth			
752	M	24 May 2019	652	636	SEITSEMIN	24 May 2019	752	Birth			

Totals: 3.8.0 (11)

Lauhanvuori National Park, Isojoki, Finland

388	F	13 May 2010	223	101	AHTARI LAUHANVUO	13 May 2010 1 Nov 2017	210005 189	Birth Transfer	WHITE 189	JADE	985121018050353
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
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
618	F	20 May 2017	389	527	RANUA LAUHANVUO	20 May 2017 11 Oct 2018	217012 CARLA	Birth Transfer	Orange 191	CARLA	9781010808351165
629	F	19 May 2017	482	505	AHTARI LAUHANVUO	19 May 2017 14 Feb 2019	217015 PIPSA	Birth Transfer	Red 464	PIPSA	
704	M	~ 2014	WILD	WILD	FINLAND LAUHANVUO	26 Feb 2019 26 Feb 2019	NONE 704	Capture Transfer			
706	F	~ 2008	WILD	WILD	FINLAND LAUHANVUO	7 Mar 2019 7 Mar 2019	56 56	Capture Transfer			
707	F	~ 2018	WILD	706	FINLAND LAUHANVUO	7 Mar 2019 7 Mar 2019	NONE 707	Capture Transfer			
753	F	14 May 2019	653	492	LAUHANVUO	14 May 2019	753	Birth			
755	M	16 May 2019	653	558	LAUHANVUO	16 May 2019	755	Birth			
756	F	18 May 2019	653	618	LAUHANVUO	18 May 2019	756	Birth			
757	F	18 May 2019	653	388	LAUHANVUO	18 May 2019	757	Birth			
758	M	30 May 2019	585	629	LAUHANVUO	30 May 2019	758	Birth			
759	F	30 May 2019	WILD	706	LAUHANVUO	30 May 2019	759	Birth			

Totals: 3.11.0 (14)

Ranua Wildlife Park, Ranua, Finland

418	F	23 Jun 2011	270	200	HELSINKI RANUA	23 Jun 2011 16 Nov 2012	211052 212061	Birth Transfer	RED	DIMMA	956000001734688
489	F	1 Jun 2013	413	374	LYCKSELE RANUA	1 Jun 2013 30 Apr 2015	LRTS1301 215005	Birth Transfer	SE039435-001MAJBRIITT		968000003414806
652	M	~ 2011	WILD	WILD	FINLAND SEITSEMEN RANUA	7 Nov 2017 8 Nov 2017 28 Mar 2019	NONE YELLOWAA 219009	Capture Transfer Transfer	Yellow AA	SAKARI	
666	F	16 May 2018	567	369	HELSINKI RANUA	16 May 2018 8 Oct 2019	218009 219052	Birth Transfer	Red	Karpalo	934000011107193
745	M	22 May 2019	645	489	RANUA	22 May 2019 7 Apr 2020	219011	Birth Death	Green 013	MAJOR	
760	F	23 May 2019	619	418	RANUA	23 May 2019	219016	Birth	Blue 012	DIIVA	

Totals: 2.4.0 (6)

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 HELSINKI	20 May 2013 25 Feb 2014	M13092 214001	Birth Transfer	YELLOW	KRUSA	98570002681727
567	M	15 May 2015	223	479	AHTARI HELSINKI	15 May 2015 27 Oct 2016	215031 216101	Birth Transfer	WHITE 170	MAXI	9851110057860
698	F	9 Jul 2018	600	440	AHTARI HELSINKI	9 Jul 2018 23 Oct 2019	218039 219103	Birth Transfer	Lilicac 564	TONTTU	
708	F	8 May 2019	567	458	HELSINKI	8 May 2019	219037	Birth	Purple	LORU	978101082009000
710	F	11 May 2019	567	485	HELSINKI	11 May 2019	219038	Birth	Pink	LUPPO	978101082009694
711	F	13 May 2019	567	369	HELSINKI	13 May 2019	219039	Birth	Orange	LAUHA	

Totals: 1.6.0 (7)

Järvzoo, Järvsö, Gävleborg, Sweden

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	
674	M	26 May 2018	571	373	HUNBSTRND JARVZOO	26 May 2018 22 Mar 2019	218044 JZM18022	Birth Transfer	Light green	OLOF	968000010165152
733	F	15 May 2019	266	261	JARVZOO	15 May 2019	JZM19003	Birth	011	PETRA	
735	F	25 May 2019	266	350	JARVZOO	25 May 2019	JZM19005	Birth		PAX	

Totals: 1.6.0 (7)

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	FYRY	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

Totals: 1.3.0 (4)

Slottsskogen Zoo, Göteborg, Sweden

539	M	15 May 2015	330	307	HUNBSTRND SLOTTSKOG	15 May 2015 9 Mar 2016	215015 2016002	Birth Transfer	LILIA	RAKKI	752098100700395
550	F	22 May 2015	311	264	BERN SLOTTSKOG	22 May 2015 8 Mar 2016	B50104 2016001	Birth Transfer		LAVRA	756098100688686
574	F	16 May 2015	266	158	JARVZOO SLOTTSKOG	16 May 2015 21 Mar 2016	JZM15018 2016003	Birth Transfer	033	NOOMI	968000010080969

Totals: 1.2.0 (3)

Lycksele Djurpark/Zoo, Lycksele, Sweden

278	F	15 May 2007	116	157	HUNBSTRND LYCKSELE	15 May 2007 5 Feb 2008 5 May 2020	207020 LRTS0701	Birth Transfer Death	GREEN/GREEN	RANJA	977200004321311
374	F	17 May 2010	240	278	LYCKSELE	17 May 2010	LRTS1001	Birth	Orange	RITA	968000003432874
646	M	22 Jun 2017	571	307	HUNBSTRND LYCKSELE	22 Jun 2017 23 Apr 2018	217135 LRTS1705	Birth Transfer	Yellow	PAKKILA	752098100816663
692	F	21 May 2018	560	374	LYCKSELE	21 May 2018	LRTS1802	Birth		RENEE	
761	F	19 May 2019	646	278	LYCKSELE	19 May 2019	LRTS1901	Birth			
762	F	21 May 2019	646	374	LYCKSELE	21 May 2019	LRTS1902	Birth			

Totals: 1.5.0 (6)

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 17 May 2020	M11064	Birth Death		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			
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			
685	M	25 May 2018	381	392	MOSCOW	25 May 2018	180277	Birth			
717	M	16 May 2019	461	588	MOSCOW	16 May 2019	190238	Birth			
718	M	22 May 2019	381	354	MOSCOW	22 May 2019	190239	Birth			
729	F	1 Jun 2019	381	392	MOSCOW	1 Jun 2019	190268	Birth			

Totals: 9.8.0 (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	
521	F	28 May 2014	380	354	MOSCOW KERZHENSK	28 May 2014 4 Dec 2014	140238 521	Birth Transfer		LUSYA	
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	ZINOVII	Birth		ZINOVII	
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			
671	F	20 May 2018	381	325	MOSCOW KERZHENSK	20 May 2018 15 Feb 2019	180250 18020313	Birth Transfer		VETLUJHKA	6430941100491559
687	M	8 Jun 2018	464	462	KERZHENSK	8 Jun 2018	18010211	Birth		180102-11	
695	F	28 Jun 2018	381	338	MOSCOW KERZHENSK	28 Jun 2018 15 Feb 2019	180337 18020414	Birth Transfer		VICHONKA	643094100491558
712	M	~ 2018	WILD	WILD	RUSSIA KERZHENSK	~ 2019 12 Mar 2019	NONE 190101-2	Capture Transfer		NORTH	

713	F	~ 2016	WILD	WILD	RUSSIA KERZHENSK	~ 2019 12 Mar 2019	NONE 1902011A	Capture Transfer		DVINA
714	M	13 May 2019	518	521	KERZHENSK	13 May 2019	19010115	Birth		
742	F	14 Jun 2019	WILD	713	KERZHENSK	14 Jun 2019	1902023A	Birth		DOBRYANA

Totals: 9.7.0 (16)

TOTALS: 58.116.0 (174)

26 Institutions

Compiled by: Leif Blomqvist thru Nordens Ark
Data current thru: 1 Jan 2020 - European regional
Printed on 5 Jan 2020 using Sparks v1.65

4.2. Forest reindeer births 2019. Changes taking place after 1.1.2020 marked in red.

FOREST REINDEER Studbook

Restricted to: (*Rangifer tarandus fennicus*)

Dates: 1 Jan 2019 - 31 Dec 2019

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
708	F	8 May 2019	567	458	HELSINKI	8 May 2019	219037	Birth	Purple	LORU	978101082009000
709	F	10 May 2019	652	555	SEITSEMIN FINLAND	10 May 2019 28 Nov 2019	709	Birth Release			
710	F	11 May 2019	567	485	HELSINKI	11 May 2019	219038	Birth	Pink	LUPPO	978101082009694
711	F	13 May 2019	567	369	HELSINKI	13 May 2019	219039	Birth	Orange	LAUHA	
714	M	13 May 2019	518	521	KERZHENSK	13 May 2019	19010115	Birth			
715	M	14 May 2019	408	605	KERKRADE	14 May 2019 14 May 2019	M19403	Birth Death		GAIA 42	
716	F	14 May 2019	337	407	ARNHEM	14 May 2019	9273	Birth	Red		528257000086646
717	M	16 May 2019	461	588	MOSCOW	16 May 2019	190238	Birth			
718	M	22 May 2019	381	354	MOSCOW	22 May 2019	190239	Birth			
719	M	15 May 2019	600	479	AHTARI SEITSEMIN	15 May 2019 22 Apr 2020	219027	Birth Transfer	Yellow 10 Violet 59	EERIK	
720	F	22 May 2019	585	439	AHTARI SEITSEMIN	22 May 2019 22 Apr 2020	219028	Birth Transfer	Green 27 Orange 17	RAUNI	
721	M	23 May 2019	585	505	AHTARI SEITSEMIN	23 May 2019 22 Apr 2020	219029	Birth Transfer	Blue 33 Green 23	TAPIO	
722	F	22 May 2019	591	469	KINGUSSIE	22 May 2019	6135	Birth			
723	M	12 May 2019	401	447	PRAHA AUGSBURG	12 May 2019 21 Jan 2020	190106	Birth Transfer			276098106513207
724	F	20 May 2019	401	431	PRAHA KREFELD	20 May 2019 9 Jan 2020	190107	Birth Transfer			941000022675780
725	?	22 May 2019	571	617	HUNBSTRND	22 May 2019 22 May 2019	219015	Birth Death			
726	F	23 May 2019	571	373	HUNBSTRND	23 May 2019 23 May 2019	219016	Birth Death			
727	M	25 May 2019	408	639	KERKRADE KREFELD	25 May 2019 15 Jan 2020	M19424 2503	Birth Transfer	Roze 025	Gaia 46	528210004989608
728	M	29 May 2019	591	608	KINGUSSIE	29 May 2019 31 May 2019	6147	Birth Death			
729	F	1 Jun 2019	381	392	MOSCOW	1 Jun 2019	190268	Birth			
730	F	27 May 2019	585	375	AHTARI SEITSEMIN	27 May 2019 22 Apr 2020	219030	Birth Transfer	Orange 11 Violet 54	KIIRA	
731	M	29 May 2019	600	440	AHTARI	29 May 2019 30 May 2019	219032	Birth Death	Pink 65		

732	M	1 Jun 2019	600	631	AHTARI SEITSEMIN	1 Jun 2019 22 Apr 2020	219033 MÄKSÄ	Birth Transfer	White 73 Grey 47	MÄKSÄ	
733	F	15 May 2019	266	261	JARVZOO	15 May 2019	JZM19003	Birth	011	PETRA	
734	M	28 May 2019	408	570	KERKRADE KRONBERG	28 May 2019 3 Mar 2020	M19428 4398	Birth Transfer	Green 007	Gaia 47	528210004989630
735	F	25 May 2019	266	350	JARVZOO	25 May 2019	JZM19005	Birth		PAX	
736	M	4 Jun 2019	408	267	KERKRADE	4 Jun 2019 22 Jul 2019	M19478	Birth Death	Blue 062	Gaia 48	528257000072540
737	M	25 May 2019	539	566	SLOTTSKOG	25 May 2019 27 Sep 2019	2019001	Birth Death		RIKKO	
738	?	27 Apr 2019	337	397	ARNHEM	27 Apr 2019 27 Apr 2019	9377	Birth Death			
739	M	12 May 2019	337	430	ARNHEM	12 May 2019 13 May 2019	9365	Birth Death			
740	M	24 May 2019	337	633	ARNHEM	24 May 2019 25 May 2019	9370	Birth Death			
741	F	25 Jun 2019	311	586	BERN	25 Jun 2019 26 Jun 2019	B90129	Birth Death			756098100812556
742	F	14 Jun 2019	WILD	713	KERZHENSK	14 Jun 2019	1902023A	Birth		DOBRYANA	
743	?	13 Jul 2019	408	579	KERKRADE	13 Jul 2019 14 Jul 2019	M19610	Birth Death			
744	F	17 Jun 2019	602	426	LIBEREC	17 Jun 2019 23 Jun 2019	665010	Birth Death			
745	M	22 May 2019	645	489	RANUA	22 May 2019 7 Apr 2020	219011	Birth Death	Green 013	MAJOR	
746	F	15 May 2019	532	547	PLOCK	15 May 2019	A20695	Birth			
747	M	12 May 2019	652	594	SEITSEMIN	12 May 2019	747	Birth			
748	M	16 May 2019	652	497	SEITSEMIN FINLAND	16 May 2019 26 Nov 2019	748	Birth Release			
749	F	16 May 2019	652	654	SEITSEMIN	16 May 2019	749	Birth			
750	F	16 May 2019	652	640	SEITSEMIN	16 May 2019	750	Birth			
751	M	18 May 2019	652	491	SEITSEMIN	18 May 2019 15 Oct 2019	751	Birth Death			
752	M	24 May 2019	652	636	SEITSEMIN	24 May 2019	752	Birth			
753	F	14 May 2019	653	492	LAUHANVUO	14 May 2019	753	Birth			
754	M	15 May 2019	653	403	LAUHANVUO FINLAND	15 May 2019 3 Dec 2019	754	Birth Release			
755	M	16 May 2019	653	558	LAUHANVUO	16 May 2019	755	Birth			
756	F	18 May 2019	653	618	LAUHANVUO	18 May 2019	756	Birth			
757	F	18 May 2019	653	388	LAUHANVUO	18 May 2019	757	Birth			
758	M	30 May 2019	585	629	LAUHANVUO	30 May 2019	758	Birth			
759	F	30 May 2019	WILD	706	LAUHANVUO	30 May 2019	759	Birth			
760	F	23 May 2019	619	418	RANUA	23 May 2019	219016	Birth	Blue 012	DIIVA	
761	F	19 May 2019	646	278	LYCKSELE	19 May 2019	LRTS1901	Birth			
762	F	21 May 2019	646	374	LYCKSELE	21 May 2019	LRTS1902	Birth			

TOTALS: 24.26.3 (53)

Compiled by: Leif Blomqvist thru Nordens Ark
Data current thru: 1 Jan 2020 - European regional
Printed on 5 Jan 2020 using Sparks v1.65

4.3. Wild-caught forest reindeer 2019.

FOREST REINDEER Studbook

Restricted to: (*Rangifer tarandus fennicus*)

Dates: 1 Jan 2019 - 1 Jan 2020

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
704	M	~ 2014	WILD	WILD	FINLAND LAUHANVUO	26 Feb 2019 26 Feb 2019	NONE	Capture Transfer			
705	M	~ 2014	WILD	WILD	FINLAND SEITSEMIN	26 Feb 2019 26 Feb 2019	NONE	Capture Transfer			
706	F	~ 2008	WILD	WILD	FINLAND LAUHANVUO	7 Mar 2019 7 Mar 2019	56	Capture Transfer			
707	F	~ 2018	WILD	706	FINLAND LAUHANVUO	7 Mar 2019 7 Mar 2019	NONE	Capture Transfer			
712	M	~ 2018	WILD	WILD	RUSSIA KERZHENSK	~ 2019 12 Mar 2019	NONE	Capture Transfer		NORTH	
713	F	~ 2016	WILD	WILD	RUSSIA KERZHENSK	~ 2019 12 Mar 2019	NONE	Capture Transfer		DVINA	

TOTALS: 3.3.0 (6)

Compiled by: Leif Blomqvist thru Nordens Ark

Data current thru: 1 Jan 2020 - European regional

Printed on 5 Jan 2020 using Sparks v1.65

4.4. Forest reindeer deaths 2019. Changes taken place after 1.1.2020 marked in red.

FOREST REINDEER Studbook

Restricted to: (*Rangifer tarandus fennicus*)

Dates: 1 Jan 2019 - 31 Dec 2019

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
261	F	24 May 2006	168	157	HUNBSTRND JARVZOO	24 May 2006 14 May 2007 3 Oct 2019	206018 JZM07031	Birth Transfer Death	GREEN/GREEN	MIKAELA	977200004210694
266	M	2 Jun 2006	207	204	BORAS JARVZOO	2 Jun 2006 23 Jan 2008 18 Sep 2019	HR0023 JZM08004	Birth Transfer Death		CIRIUS	96800000272488
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
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
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
485	F	3 Jun 2013	270	288	HELSINKI	3 Jun 2013 3 Jun 2019	213044	Birth Death	WHITE	FINKA	956000008419397
540	M	12 May 2015	381	325	MOSCOW KERZHENSK	12 May 2015 17 Mar 2016 12 Dec 2019	150195 150101-6	Birth Transfer Death			
566	F	22 May 2015	266	350	JARVZOO	22 May 2015	JZM15020	Birth	034	AILA	968000010080094

					SLOTTSKOG	21 Mar 2016 1 Sep 2019	2016004	Transfer Death			
581	F	29 May 2015	187	341	ROTTERDAM	29 May 2015 30 May 2019	Z15118	Birth Death		SJAKIRA	528210004193881
614	M	15 May 2017	482	479	AHTARI KARSTULA	15 May 2017 12 Sep 2018 11 May 2019	217010 RED474	Birth Transfer Death	Orange 667	JUHA	
616	M	18 May 2017	401	447	PRAHA HANSURLES	18 May 2017 9 May 2018 11 Sep 2019	170156 GR318	Birth Transfer Death			
627	F	26 May 2017	381	392	MOSCOW	26 May 2017 13 Nov 2019	170892	Birth Death			
650	F	7 Jun 2017	560	279	LYCKSELE	7 Jun 2017 1 Jul 2019	LRTS1704	Birth Death		MIESSI	
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
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
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
691	M	19 May 2018	560	278	LYCKSELE	19 May 2018 14 May 2019	LRTS1801	Birth Death			
715	M	14 May 2019	408	605	KERKRADE	14 May 2019 14 May 2019	M19403	Birth Death		GAIA 42	
725	?	22 May 2019	571	617	HUNBSTRND	22 May 2019 22 May 2019	219015	Birth Death			
726	F	23 May 2019	571	373	HUNBSTRND	23 May 2019 23 May 2019	219016	Birth Death			
728	M	29 May 2019	591	608	KINGUSSIE	29 May 2019 31 May 2019	6147	Birth Death			
731	M	29 May 2019	600	440	AHTARI	29 May 2019 30 May 2019	219032	Birth Death	Pink 65		
736	M	4 Jun 2019	408	267	KERKRADE	4 Jun 2019 22 Jul 2019	M19478	Birth Death	Blue 062	Gaia 48	528257000072540
737	M	25 May 2019	539	566	SLOTTSKOG	25 May 2019 27 Sep 2019	2019001	Birth Death		RIKKO	
738	?	27 Apr 2019	337	397	ARNHEM	27 Apr 2019 27 Apr 2019	9377	Birth Death			
739	M	12 May 2019	337	430	ARNHEM	12 May 2019 13 May 2019	9365	Birth Death			
740	M	24 May 2019	337	633	ARNHEM	24 May 2019 25 May 2019	9370	Birth Death			
741	F	25 Jun 2019	311	586	BERN	25 Jun 2019 26 Jun 2019	B90129	Birth Death			756098100812556
743	?	13 Jul 2019	408	579	KERKRADE	13 Jul 2019 14 Jul 2019	M19610	Birth Death			
744	F	17 Jun 2019	602	426	LIBEREC	17 Jun 2019 23 Jun 2019	665010	Birth Death			
751	M	18 May 2019	652	491	SEITSEMIN	18 May 2019 15 Oct 2019	751	Birth Death			

TOTALS: 16.12.3 (31)

Compiled by: Leif Blomqvist thru Nordens Ark
Data current thru: 1 Jan 2020 - European regional
Printed on 5 Jan 2020 using Sparks v1.65

4.5. Forest reindeer transfers 2019.

FOREST REINDEER Studbook

Restricted to: (*Rangifer tarandus fennicus*)

Dates: 1 Jan 2019 - 31 Dec 2019

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Tag/Band	Name	Transponder
619	M	21 May 2017	389	489	RANUA	21 May 2017	217013	Birth	GreenLIFE29	MASA	
					LAUHANVUO	9 Apr 2019	GREEN020	Transfer			
					FINLAND	10 Sep 2019	GREEN020	Release			
629	F	19 May 2017	482	505	AHTARI	19 May 2017	217015	Birth	Red 464	PIPSA	
					LAUHANVUO	15 Feb 2019	PIPSA	Transfer			
645	M	20 Jun 2017	389	418	RANUA	20 Jun 2017	217037	Birth	OrangeLIFE19	DUOMAS	
					LAUHANVUO	9 Apr 2019	GREY001	Transfer			
					FINLAND	10 Sep 2019	GREY001	Release			
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			
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			
655	F	7 May 2018	337	397	ARNHEM	7 May 2018	8295	Birth	YELLOW	RANA	528257000048768
					AUGSBURG	28 Feb 2019	2019AH	Transfer			
657	M	12 May 2018	567	458	HELSINKI	12 May 2018	218006	Birth	Light blue	KAIKU	934000011107195
					SEITSEMIN	13 Mar 2019	KAIKU	Transfer			
					FINLAND	26 Nov 2019	L.BLUE	Release			
659	F	11 May 2018	337	430	ARNHEM	11 May 2018	8299	Birth	Light Blue	SAIJA	528257000048767
					AUGSBURG	28 Feb 2019	2019AG	Transfer			
						8 May 2019		Death			
664	F	16 May 2018	401	446	PRAHA	16 May 2018	180110	Birth		SAANA	203094100001580
					LIBEREC	11 Mar 2019	665009	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			
671	F	20 May 2018	381	325	MOSCOW	20 May 2018	180250	Birth		VETLUJHKA	6430941100491559
					KERZHENSK	15 Feb 2019	18020313	Transfer			
674	M	26 May 2018	571	373	HUNBSTRND	26 May 2018	218044	Birth	Light green	OLOF	968000010165152
					JARVZOO	22 Mar 2019	JZM18022	Transfer			
676	M	21 May 2018	389	418	RANUA	21 May 2018	218007	Birth	GreyLIFE42	DIMI	
					LAUHANVUO	9 Apr 2019	PURP.011	Transfer			
					FINLAND	3 Dec 2019	LIFE42	Release			
680	F	31 May 2018	408	367	KERKRADE	31 May 2018	M18141	Birth	White 050	Gaia 40	528257000033829
					PRAHA	14 Mar 2019	190068	Transfer			
						29 May 2020		Death			
681	F	31 May 2018	408	267	KERKRADE	31 May 2018	M18142	Birth	Brown 039	Gaia 41	528257000033824
					PRAHA	14 Mar 2019	190069	Transfer			
						14 May 2019		Death			
695	F	28 Jun 2018	381	338	MOSCOW	28 Jun 2018	180337	Birth		VICHONKA	643094100491558
					KERZHENSK	15 Feb 2019	18020414	Transfer			
698	F	9 Jul 2018	600	440	AHTARI	9 Jul 2018	218039	Birth	Lilicac 564	TONTTU	
					HELSINKI	23 Oct 2019	219103	Transfer			
704	M	~ 2014	WILD	WILD	FINLAND	26 Feb 2019	NONE	Capture			
					LAUHANVUO	26 Feb 2019	704	Transfer			
705	M	~ 2014	WILD	WILD	FINLAND	26 Feb 2019	NONE	Capture			
					SEITSEMIN	26 Feb 2019	705	Transfer			
706	F	~ 2008	WILD	WILD	FINLAND	7 Mar 2019	56	Capture			
					LAUHANVUO	7 Mar 2019	56	Transfer			
707	F	~ 2018	WILD	706	FINLAND	7 Mar 2019	NONE	Capture			
					LAUHANVUO	7 Mar 2019	707	Transfer			

712 M ~ 2018 WILD WILD RUSSIA ~ 2019 NONE Capture NORTH
KERZHENSK 12 Mar 2019 190101-2 Transfer

713 F ~ 2016 WILD WILD RUSSIA ~ 2019 NONE Capture DVINA
KERZHENSK 12 Mar 2019 1902011A Transfer

TOTALS: 10.14.0 (24)

Compiled by: Leif Blomqvist thru Nordens Ark
Data current thru: 1 Jan 2020 - European regional
Printed on 5 Jan 2020 using Sparks v1.65

4.6. Released forest reindeer 2019. Animals listed according to date of release.

FOREST REINDEER Studbook

Restricted to: (*Rangifer tarandus fennicus*)

Dates: 1 Jan 2019 - 1 Jan 2020

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

Ähtäri-Karstula area 5.0 individuals:

482	M	3 Jun 2013	389	418	RANUA	3 Jun 2013	213013	Birth	Violet 568	TOFFO	978101081198865
					AHTARI	8 Oct 2015	215065	Transfer			
					KARSTULA	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			
					KARSTULA	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			
					KARSTULA	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			
					KARSTULA	6 Sep 2018	279	Transfer			
					FINLAND	11 May 2019	279	Release			
637	M	8 Jun 2017	567	485	HELSINKI	8 Jun 2017	217041	Birth	L.yellow 059	JAKALA	934000011107155
					AHTARI	19 Apr 2018	218003	Transfer			
					KARSTULA	6 Sep 2018	059	Transfer			
					FINLAND	11 May 2019	059	Release			

Lauhanvuori NP 8.2 individuals:

619	M	21 May 2017	389	489	RANUA	21 May 2017	217013	Birth	GreenLIFE29	MASA	
					LAUHANVUO	9 Apr 2019	GREEN020	Transfer			
					FINLAND	10 Sep 2019	GREEN020	Release			
638	M	6 Jun 2017	482	558	AHTARI	6 Jun 2017	217020	Birth	Blue 37	PATE	
					LAUHANVUO	1 Nov 2017	561	Transfer			
					FINLAND	10 Sep 2019	3;37	Release			
645	M	20 Jun 2017	389	418	RANUA	20 Jun 2017	217037	Birth	OrangeLIFE19	DUOMAS	
					LAUHANVUO	9 Apr 2019	GREY001	Transfer			
					FINLAND	10 Sep 2019	GREY001	Release			
703	M	30 Jun 2018	653	403	LAUHANVUO	30 Jun 2018	703	Birth			
					FINLAND	10 Sep 2019		Release			

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			
676	M	21 May 2018	389	418	RANUA	21 May 2018	218007	Birth	GreyLIFE42	DIMI	
					LAUHANVUO	9 Apr 2019	PURP.011	Transfer			
					FINLAND	3 Dec 2019	LIFE42	Release			
754	M	15 May 2019	653	403	LAUHANVUO	15 May 2019	754	Birth			
					FINLAND	3 Dec 2019		Release			

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		
662	M	21 May 2018	480	492	LAUHANVUO	21 May 2018	662	Birth		
					FINLAND	12 Dec 2019		Release		
700	M	23 May 2018	MULT	558	LAUHANVUO	23 May 2018	700	Birth		
					FINLAND	12 Dec 2019		Release		

Mult possible parents: Sires: 482 (75%), 653 (25%),

Seitseminen NP 4.3 individuals:

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			
657	M	12 May 2018	567	458	HELSINKI	12 May 2018	218006	Birth	Light blue	KAIKU	934000011107195
					SEITSEMIN	13 Mar 2019	KAIKU	Transfer			
					FINLAND	26 Nov 2019	L.BLUE	Release			
748	M	16 May 2019	652	497	SEITSEMIN	16 May 2019	748	Birth			
					FINLAND	26 Nov 2019		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			
709	F	10 May 2019	652	555	SEITSEMIN	10 May 2019	709	Birth			
					FINLAND	28 Nov 2019		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			

=====

TOTALS: 17.5.0 (22)

Compiled by: Leif Blomqvist thru Nordens Ark
 Data current thru: 1 Jan 2020 - European regional
 Printed on 5 Jan 2020 using Sparks v1.65

4.7. Location Glossary - FOREST REINDEER Studbook

AHTARI Zoo Ahtari

Karhunkierros 130, Ahtari, Finland, FI-63700

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

Contact: Heini Niinimäki Data current to 1 Jan 2020

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

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 Dählholzli

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, Alvsborg, Sweden, S-503 13

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

Contact: Bo Kjellson Data current to 20 Aug 2017

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

HUNBSTRND Nordens Ark

Åby Säteri 4025, Hunnebostrand, Göteborg, Sweden, S-450 46

sara.nilsson@nordensark.se

Contact: Sara Nilsson Data current to 20 Aug 2017

JARVZOO Jarvzoo

Box 17, Jarvso, Gavleborg, 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 e.prins@gaiazoo.nl

Contact: Emile F. Prins 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 kgilechrist@rzss.org.uk

Contact: Keith Gilchrist Data current to 10 Mar 2020

KREFELD Zoo Krefeld GmbH

Urdinger Strasse 377, Krefeld, N Rhine-westph, Germany, D-47800

+49.21.51.95520 fax: +49.2151.955233 cornelia.bernhardt@zookrefeld.de

Contact: Cornelia Bernhardt Data current to 10 Mar 2020

KRONBERG Opel-Zoo von Opel Hessische Zoostiftung

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

+49.6173.78670 fax: +49.6173.995279 joerg.jebram@opel-zoo.de

Contact: Joerg Jebram Data current to 12 Mar 2020

LAUHANVUO Lauhanvuori National Park

Lauhanvuorentie, Isojoki, Finland, FI-64930

milla.niemi@metsa.fi

Contact: Milla Niemi Data current to 1 Sep 2018

LIBEREC Zoologicka 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

LYCKSELE Lycksele Djurpark/Zoo

Box 505, Lycksele, Sweden, S-921 81

+46.950.16710 emma.morzell@lycksele.se

Contact: Emma Moerzell Data current to 10 Mar 2020

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 Data current to 31 Jul 2019

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

satu.tolvanen@ranua.fi

Contact: Satu Tolvanen Data current to 10 Mar 2020

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, Göteborg, Sweden, SE-401 22

+46.31.365.5819 anna.schonstrom@ponf.goteborg.se

Contact: Anna Schönström Data current to 30 Dec 2017