

European mink news 2018

CONSERVATION ACTIVITIES ACROSS EUROPE TO SAVE THE MOST ENDANGERED EUROPEAN CARNIVORE



This is the second edition of the European mink newsletter. The input of the newsletter was delivered by conservationists from Estonia, Germany, France and Spain that have been concerned with and working on the conservation of European mink for many years. This newsletter gives a short overview of the conservation activities that were done in the different countries during the year 2018, varying from the first steps of merging the western and eastern populations of E-mink, to the first reintroductions of E-mink in Spain.

The aim of this newsletter is to reach a wide public (both governmental decision makers and the general public), in order to create awareness and support for the conservation of this most endangered carnivore of Europe. To reach this goal, several European zoos holding European mink organized activities for their visitors, to raise awareness and gain money for E-mink conservation. Another highlight of last year, was the production of a special E-mink movie, addressing the main public in France. Everybody who's willing to play part in the conservation of this species on the brink of extinction, is invited to contact us.

Conservation activities for European mink in 2018: summary per country

Estonia

Text by Kristel Nemvalts, Grete Nummert and Tiit Maran



The exchange of minks between Estonia and Spain

Currently, the European mink population in the European Endangered Species Programme (EEP) consists of descendants from eastern founders (animals from Russia). The western population is descended from founders from Spain and is separately managed by Spanish Environmental Ministry with the help from FIEB (Foundation for the Investigation in Ethology and Biodiversity). Presently, due to the small size and low genetic diversity of the western captive population, there is a risk of losing it. Merging these two populations would increase the viability of the western population and therefore the EEP aims to incorporate the Spanish breeding programme.

During 2018, the first steps towards this action were made. Before European mink breeding season, in March, there was an exchange of three female minks between Tallinn Zoo and FIEB. The aim was to breed them with the local males. Two of the Spanish females delivered 1 and 4 kits respectively in the Tallinn breeding centre. The third female didn't get pregnant. Despite that, we can now be sure that the two populations are able to interbreed. In September two female pups, one from both litters, were sent back to Spain with the aim of participating in the local breeding programme in 2019. Male pups will stay in Tallinn Zoo for now.

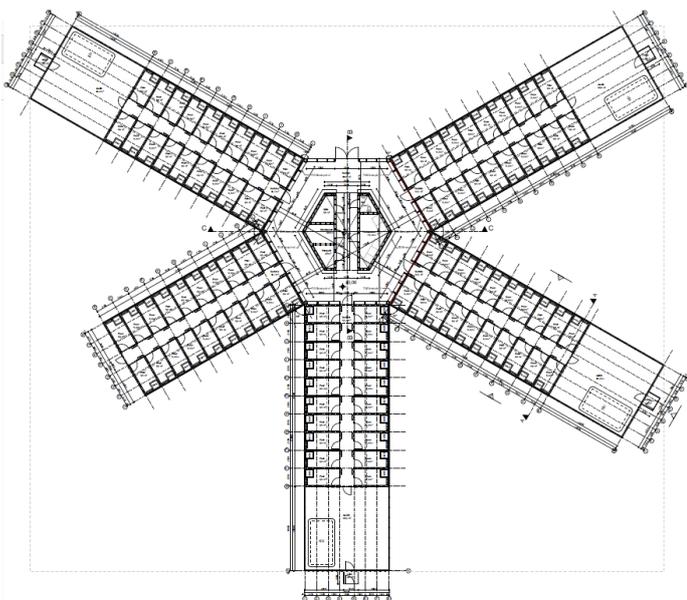


Spanish European mink from Western population emerging from transport box in Tallinn for the first time.

Conservation breeding in Tallinn

In addition to the three Eastern-Western breeding pairs, Tallinn Zoo planned to breed 12 females, the same amount as 2017. Ten females (including two females from Spain) delivered 42 pups (25 males, 17 females).

Finally, the construction of the new European mink breeding facility in Tallinn Zoo is underway! We reported in the last newsletter that construction was scheduled to be completed in the end of 2018. Unfortunately, it was further delayed due to additional formal and financial reasons. Instead the construction started at the end of 2018 and is going to be finished in 2019.



Plan for 100 new European mink breeding enclosures and 4 pre-release enclosures & construction site (December 12th)

Joint research project between Estonia and Spain

Foundation Lutreola and Tallinn Zoo took part in a project called LIFE Lutreola Spain “*New approaches for the European mink Conservation in Spain*”. Within this project genetic characterization of both captive populations (Eastern and Western) was carried out to guarantee the viability of future joint management unit. Before joining these units, it was important to get up to date information about genetic diversity in currently alive animals in both captive populations that will later play a role in merging. Therefore, European mink samples were collected from 206 animals. This made up roughly about 70% the eastern captive population and 90% of the western captive population. A diversity study investigated both mitochondrial and nuclear DNA - all in all 19 markers were used. According to mitochondrial DNA, the genetic diversity within the western captive population is less than in the eastern population. Nuclear markers showed higher average genetic variability in eastern captive population.



Various equipment and tools from the DNA lab in Tallinn Zoo Tallinn Zoo visitors measuring the European mink mascot

Mink Day in Tallinn Zoo:

In collaboration with Foundation Lutreola, Tallinn Zoo organised a special European Mink day for the visitors on April 22nd. For the third year in a row the zoo's Species Conservation Lab developed several activities to draw the visitors attention on European mink breeding and conservation activities in Estonia.

1. **Drawing contest** – Since we have about 100 minks at Tallinn Zoo and we also celebrated Estonia's 100th Anniversary of Independence this year, we decided to name our drawing contest **"Estonia's 100 minks"**. We invited schools, kindergartens (children aged 3-18) and also adults to participate.
2. **Drawing and crafts activities** for smaller children
3. **Excursions** to the European Mink Breeding Center (which is a restricted area, where zoo visitors normally can't go)
4. **Mink radio tracking** – Visitors had to find a mink mascot (who was carrying a mink radio collar) in the zoo. After capturing the "mink" they had to check if it had a transponder (which is an indicator that the animal is not wild born) and take all the necessary measurements (from paws, tail, ears etc.) like the conservation scientists do in the field.
5. **Workshop** "Who was eaten by the mink?" – Participants had to go through mink faeces to find any remains of its food objects (feathers, small mammal bones, fish scales etc.)
6. **Exhibition** about European mink *ex situ* and *in situ* conservation work.
7. **Mustelid trivia evening** with the focus on e-mink
8. **Lutreola Species Conservation Boutique charity sale** (<https://pood.lutreola.eu/en/>)

Status of the European mink population on Hiiumaa Island

The monitoring of the status of European population in Hiiumaa revealed that the population abundance has remained stable during the last two years. That is encouraging as since 2017 no more captive born mink were released. However, the monitoring also revealed critically low abundance of small mammals on the island. This together with the extreme draught in 2018 will make the winter 2018/19 a real survival challenge for this European mink island population.

Vanished stream in Hiiumaa Island due to draught



France

Text by Maylis Fayet, French national agency for wildlife (ONCFS), French Conservation Plan for European Mink; Guillaume Romano, Director of Zoodysée, French European Mink breeding center; Emmanuel Mouton, Director of Calviac zoological reserve; Ingrid Marchand, NGO for bird protection (LPO), LIFE European Mink.

In spite of two national restoration plans (1999-2003 and 2007-2011), French wild populations of European mink is still decreasing. Indeed, the species has been classified as « critically endangered » in 2017 in the IUCN French Red List. Since 2014, French national authorities have decided to run new conservation actions with two priorities:

1. Evaluate the European mink population in France

A monitoring program based on 514 trapping campaigns has been launched in 2016. In March 2018, 43% of those campaigns were realized. Furthermore, the LIFE VISON, a five-year program coordinated by LPO (NGO for bird protection), has been launched in September 2017 in the Charente river basin.

Together, those programs caught 10 European mink (5 males and 5 females). These first results are confirming that the core population may now be located in the northern part of the historical range and probably already disconnected from the Spanish population.



Weighing of a wild European mink

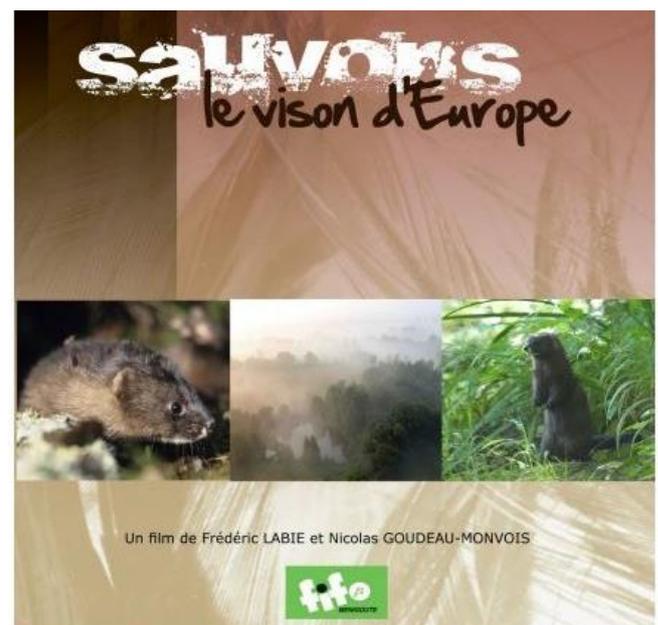
2. Implement control strategy against American mink

The control strategy is based on a mink rafts network deployed at the edge of the distribution areas of the American mink. This partnership program aims to avoid the propagation of this invasive species in France and Spain. More than 400 rafts are installed in 4 areas of France (135 followed by the LIFE VISON). Currently, 35 additional rafts are being installed in a 5th area. New punctual American mink were found at the edge of the historical European mink range, showing that colonization is still in process.



Other actions in France

- The breeding program conducted in two zoos keeps going on:
 - Arrival of 2 European minks early 2018 at « Zoodysée », bringing the population to 9 individuals (6 males, 3 females). The breeding season has been complicated by a 3 weeks delay of females' heat. An artificial insemination, a French first, has been attempted and was promising but not successful,
 - No birth was recorded at the « Réserve zoologique de Calviac » among the 6 individuals (3 males, 3 females).
- The LIFE VISON program restored 4 hectares of favorable habitat for the European mink.
- November 2018 was marked by the release of an entirely dedicated documentary (52min) on European mink and his conservation actions led in France : “Sauvons le Vison d’Europe” (“Let’s save the European mink”, by FIFO production).



Cover of the documentary “let’s save the European mink”

Spain

Text by Madis Põdra,
Life Lutreola Spain
project team &
The Ministry for the
Ecological Transition



Conservation status

In 2018, the status of European mink in Spain was officially declared as in the “critical situation” (BOE Nº 251, published October 17th), based on earlier statements of the Working Group and Commitment of Fauna and Flora. It means, the European mink is one of the seven species with the highest extinction risk in Spain and will be prioritized for conservation actions in the coming years.

Conservation breeding

The captive-breeding program in Spain was relatively successful: seven litters were born with 20 pups in total (5 males and 15 females – similar to 2017). The results helped to maintain the structure of population favourable and also, to provide a small group of animals for release operations. Breeding took place in three different centres: El Pont de Suert, FIEB Foundation and in a small centre in Legarda (Álava). Six other centres and zoos participated in the program by keeping mostly surplus animals.



European mink habitat Najerilla river (La Rioja), Spain

In situ activities

2018 was the last year of the project LIFE LUTREOLA SPAIN, although a few actions will be prolonged until mid-2019. Most of the actions were successfully completed during this year.

Removal of the American mink, carried out in the first years of the LIFE project, gave positive results in several rivers. In 2018 it was confirmed that Ebro river basin in Álava and in La Rioja (up to 400 km of rivers) and also a few Cantabric rivers in Gipuzkoa

were free of the American mink. The results are promising also in the rest of the territory – only a small number of American mink was detected in a few Cantabric rivers in Bizkaia, as well as in Aragon in Ebro river basin (close to the European mink distribution area) and in Mediterranean rivers in Aragon and Valencia.

Same time, the situation of the European mink remained critical, with only very few individuals sparsely spread out in the area. To reinforce the fragmented population, a small group of captive-born European mink was released in 2018 in the Ebro river basin. The release was carried out in groups; seven minks were released in Salburua wetland in Álava, and eight in Ebro river in La Rioja. More than half of released mink survived the first month after the release, adapting well to the wild. Field-survey in the next years is needed to evaluate an overall effectiveness and its impact on the population.



Release of European mink

Germany

Text by Christian Seebas, EuroNerz e.V.



The association EuroNerz e.V. is working on a voluntary basis on the topics of European mink *ex situ* breeding as well as a partner of a reintroduction project in Lower Saxony, northern Germany. Actually 27 institutions (mostly wildlife parks and zoos) collaborate as members within EuroNerz e.V., presenting European mink especially during the breeding season to the public.

In 2018, 25 matings took place, resulting in the birth of 24 litters with a total of 45 cubs. From these cubs, 19 (14 males, 5 females) were released as founders within the reintroduction project at the lake "Steinhuder Meer". The releases were done during September and October 2018, using the "hard release" method.

European mink activities in GaiaZOO, Kerkrade (Netherlands)

Text by Hanneke de Boer

The conservation fund of GaiaZOO, Gaia Nature Fund, proclaimed the European mink as 'conservation species of the year 2018'. Therefore several activities on E-mink were set up. First, a new enclosure for the mink in the zoo was built. After 10 years the old, small cages were replaced by three new separate enclosures, each about 10m wide and 4m deep, including a running water stream and a deep pond. At the end of September, two European mink from the breeding center in Tallinn Zoo moved to the new enclosures. Next breeding season, we hope that they will produce young for the EEP.



New mink enclosure in GaiaZOO



E-mink pin to sell for conservation

To create awareness and stimulate donations for the conservation activities of Foundation Lutreola, GaiaZOO edited two short movies about Tallinn Zoos' breeding center and the activities on Hiiumaa Island. Besides, GaiaZOO's conservation and education officer produced an article for the journal of the Dutch zookeepers association "De Harpij" on E-mink conservation in Estonia. Based on this, the board of this association decided to donate € 500,- to Foundation Lutreola to make a new frog pond on Hiiumaa Island. Above that, the Gaia Nature fund produced a special E-mink pin to sell to visitors. Together with income of other educational activities in GaiaZOO, the generated money will be donated to Foundation Lutreola. The year of the European mink will end in June 2019, but so far, already € 7,500.- was gained. The following months dedicated GaiaZOO volunteers and employees will go on to collect money and raise awareness to help saving this wonderful small carnivore!

Romania

Alexandru Bulacu, Executive Director & Adrian Hăgătiș, Conservation Director, Societatea Română de Sălbăticie (Romanian Wilderness Society); Mihai Marinov, Department Leader, Institutul Național de Cercetare – Dezvoltare Delta Dunării – Tulcea (Danube Delta National Institute for Research and Development – Tulcea, Romania)



In Romania, sure and current data about the presence of European mink exists only from the Danube Delta Biosphere Reserve. On older maps however, multiple distribution areas are given (besides the ones in the Danube Delta), especially in the Carpathians and in the Danube Valley. Older information is given for the Prut Valley as well, but those haven't been confirmed recently. Currently, it is possible that small, isolated populations exist on banks or islets along the Danube River's valley. Similarly, there is information from 2010 on the capturing of some individuals of European mink in certain areas in the counties of Mureș and Harghita, but data were not published and therefore not confirmed by clear evidences (photo and video material, etc.).

As a tangible step forward for the conservation of the European Mink in Romania, a National Working Group for the Conservation of the European Mink was set-up in 2018 involving the most relevant specialists in the country, representing research institutes and universities, biologists, environmental NGOs, veterinarians, zoos and the Ministry of Environment. The goal of this working group is to develop a strategic approach on a national level for the coming decade. In addition, a dedicated NGO has been founded, with the aim to actively implement the strategic conservation measures and action plans that are developed by the National Working Group, through future impactful conservation projects, involving both *in-situ* and *ex-situ* actions.



meeting of the National Working Group

This newsletter was compiled with the input of many dedicated European mink conservationists. We thank all of them for sharing their knowledge and experience!



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Please send your feedback and new developments about mink conservation in Europe to h.deboer@gaiazoo.nl