

The current state of the European mink in Russia

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Abstract: The European mink is one of the most critically endangered mammalian species. In Russia, the European mink is included in almost all regional Red Data Books, where it once lived. Preserved populations are known only for several regions of Central Russia, where its distribution is heavily fragmented and the number of individuals in the country is extremely low. Despite the mentioned facts, this the European mink still belongs to the species for which hunting is allowed in Russia. Estimation of the actual size of the European mink population is almost impossible - it can be several hundred or several thousand individuals. This article summarizes information on the current situation of a critically endangered European mink in Russia and describes efforts of the Breeding Center of the European mink in the Ilmen Nature Reserve (east slope of the southern Urals) to preserve the species in Russia.

Key words: European mink, nature conservation, breeding center, critically endangered species

The European mink is a small, semi-aquatic carnivoran species, listed in the IUCN Red List of Threatened Species (<http://www.iucnredlist.org>). In Russia, it's included in almost all regional Red Data Books, where the species once lived. However, in many regional Red Books there is no reliable information about it. Some nature reserves and national parks keep the European mink on their species lists, which creates the impression of the existence of a species, while it has disappeared from the area long ago. The reason for that is relying on historical and outdated information. In some regional Red Books the European mink is obviously confused with the American mink (*Neovison vison*) or polecat (*Mustela putorius*) (Kiseleva, 2012; Skumatov, 2015).



European mink (Photo: N. V. Kiseleva)

It is almost impossible to estimate the current number of the European mink in the wild. It can be several hundred or maybe several thousand individuals. Habitats of the European mink in the form of small settlements are known only for several regions of Central Russia (Skumatov, 2015; Tumanov, 2016). Actual reports of identification of the European mink after 2010 are known in the following areas: Tver (east, 2011-2012), Ivanovo (2010-2014), Kostroma (north, 2011-2016), Arkhangelsk (southeast, 2012-2014, Komi Republic (west and central, 2011-2014) and in the Krasnodar Territory (east and south, 2011) (Skumatov, 2017). Two European minks (two males) were caught on the territory of Adygea in the vicinity of Maykop city in 2016 and 2017. The inhabitation of the European mink on Kunashir Island (Kuril Islands, Sakhalin oblast) was confirmed, where European mink was released in 1981 by zoologists from Novosibirsk Biological Institute SB RAS (Institute of Systematic and Ecology SB RAS) - D.V. Ternovsky and Y.G. Ternovskaya (<http://sakhalinmedia.ru/news/494929>). According to the data of 2003-2006, the size of the European mink population was estimated at 20000 individuals (Tumanov, 2009), but it was not based on the accounts in specific habitats (Maran et al., 2016). At present, the number of the European mink in Russia is extremely low, its distribution in the European part of Russia is fragmentary (Skumatov, 2015). Despite of this facts the European mink still belongs to the species for which hunting is allowed.

The European mink inhabited South Ural and Chelyabinsk Region throughout mountain taiga area however in comparison with the Western Ural its number always was low. Research in the years 1998-2008 showed that till 1990 the European mink was reported from the vicinity of Miass (Atlyan River), on tributary streams of Ufa River, the rivers Kialim, Satka, Tyulyuk, as well as from some areas of Bashkiria. For the last time the European mink (male) was caught in Chelyabinsk Region at the Berezyak River in 2000.

Thus, the current area occupied by the European mink in Russia consists of the separate isolated areas with small, highly fragmented populations and if urgent conservation and restoration activities won't be undertaken, the species will soon disappear from Russia.

Among some zoologists there is an opinion that inclusion of the European mink in the Russian Red Book will lead to reduction of catches of the American mink, because of fear of hunters to catch European mink accidentally and get heavy fine for it. Reduction of a hunting pressure on the American mink will lead to increase its feral population size and will negatively affect the preserved European mink populations in Russia. Such opinion was the reason not of inclusion of the European mink in the new edition of the Russian Red List in 2017.

It should be noted that in most regions the American mink isn't a significant hunting object due to the low cost of skins and greater profitability of farm fur production. The hunting factor isn't constraining for distribution of invasive species any more.

Another opinion, negative for the European mink, is that some zoologists believe that preservation and restoration of the European mink is possible only on the islands, without invasive American mink. Popularity of this opinion is connected with the fact that experience of preservation of the European mink in islands is widely known (Ternovskij et al., 1994; Maran et al., 2009), while very little is known about successful inland restoration of the species in Spain or Germany. In addition, it is believed that to species preservation requires large financial expenses. All this has led to the fact that almost no measures aimed at clarifying the true actual state of the European mink populations are taken in Russia and, thus, no attempts are made to preserve the species. In the Russian Red List only Caucasian subspecies of the European mink is listed. There is almost no national conservation program for the European mink, which significantly contributes to the worsening of the species' situation in the country.

In the Ilmen Reserve there is the only Breeding Center of the European mink in Russia. Thirty European minks were imported in 2009 from Novosibirsk (Institute of Systematic and Ecology of Animals SB RAS) in connection with the liquidation of Ternovsky Minks Center. Another 30 minks were sent to Pushkin Minks Farm (Moscow Region), but these minks soon died in connection with their transfer to industrial feed. Additionally, a small number of European

minks (two to five individuals) are kept in Russian zoos (Chelyabinsk, Yekaterinburg, Novosibirsk, Moscow, St. Petersburg).

In the European mink Breeding Center of Ilmen Nature Reserve breeding of the European mink is carried out since 2010. Mink breeds well, received twenty-five litters. The annual number of litters depends only on the availability of funding and the number of free cages and enclosures. As part of the livestock there is adult male from the wild. The system of individual testing of minks has been developed to assess the success of developing a new unfamiliar area (Kiseleva, 2018), determining the estimated area for release of minks into the wild.

Breeding Center of the European mink in the Ilmen Nature Reserve is in dilapidated condition now. Due to the reform of the Russian Academy of Sciences, its funding stopped two years ago, the staff was completely reduced, and attempts are constantly being made to give out minks to various zoos. To save the Center the “European mink conservation Foundation” has been recently established.

In Russia there are still two ways to preserve the European mink. This is conservation of wild populations, including estimation of population and determination of the American mink number in these areas. For each discovered European mink population, specific conservation measures should be established; American mink should be monitored and removed from the settlements of the European mink. The second way is the creation of new settlements of the European mink in its former habitats, based on animals born in captivity. In order to ensure captive-raised animals survival in the wild, special education and adaptation is necessary.

Literature Cited

Kiseleva N. V. 2012 Sovremennyye problem evropeiskoi norki (analiz dannykh) regionalnykh krasnykh knig // Ghivotnye: ecologia, biology and ochrana. Saransk: 185-188 (in Russian)

Kiseleva N. V. 2018. Studies of exploratory behavior of the European mink (*Mustela lutreola*) // Contemporary Problems of Ecology (*in print*)

Skumatov D.V. 2015. Fakticheskoe sostoanie evropeiskoi norki (*Mustela lutreola*) v regionax RF and znachenie Krasnoi knigi dla suschestvovaniya vida // Aktualnye problem sohraneniya biorasnoobrasia v regionax Rossiskoi Federacii). Perm: 175 (in Russian)

Maran T., Madis P., Polma M., David W. Macdonald D.W. 2009. The survival of captive-born animals in restoration programmes – Case study of the endangered European mink *Mustela lutreola* // Biological Conservation 142: 1685-1692

Maran T., Skumatov D., Gomez A., Põdra M., Abramov A. V., Dinets V. 2016. *Mustela lutreola*. The IUCN Red List of Threatened Species: <http://dx.doi.org/10.2305/IUCN.UK.2017-1.RLTS.T14018A45199861>

Skumatov D. 2017. About the status of the European mink (*Mustela lutreola*) in Russia // Recent problems of nature use, game biology and fur farming: Proceedings of International Scientific and Practical Conference dedicated to the 95th anniversary of Russian Research Institute of Game Management and Fur Farming (May 22-25, 2017) /VNIIOZ; Kirov: <http://vniioz-kirov.ru/novosti.pdf> (in Russian)

Ternovskij D.V., Ternovskaja Ju. G. 1994. Ekologia kuniceobraznykh. Nauka. Novosibirsk (in Russian)

Tumanov I.L. 2009. Problem of European mink (*Mustela lutreola* L.): Condition of resources, reasons of disappearance and strategy of protection // Vestnik okhotovedeniya 6(2): 162-166 (in Russian)

Tumanov I.L. 2016. Sochranim evropeiskuy norku // Ochota i ochotnichie hozaistvo 6: 16-18 (in Russian)

<http://www.iucnredlist.org>

<http://sakhalinmedia.ru>