

## Follow-up report 3

12/10/2021

**The event is ongoing. Weekly follow-up reports will be submitted.**

Sender	Country/territory	Report ID
Delegate of Sweden	Sweden	FUR_151803
Event status	Self-declaration	
On-going	No	

### General information

Country or zone - Country	Disease - SARS-CoV-2 in animals (Inf. with)	Started on - 19/08/2021
Animal type - Terrestrial	Confirmed on - 19/08/2021	Causal agent - SARS-CoV-2
Disease category - Emerging	Reported on - 12/10/2021	Reason - Emerging disease

### Disease impact

Outbreak morbidity - 0.02	Outbreak mortality - 0.02
Zoonotic potential - Yes	Zoonotic potential description - Matching sequences from sub-lineage B.1.1.464 have previously been described from at least 14 countries globally in samples originating from people. The source of the virus is currently unknown, although introduction through COVID-19 infected people is considered likely.

See also further information under Epidemiological comments.

### Epidemiology

Source of the event or origin of the infection - Unknown or inconclusive

Epidemiological comments SARS-CoV-2 nucleic acids was detected using qRT-PCR in one out of six tracheal swabs sampled from mink found dead on the farm. Whole genome sequencing of the virus has been carried out demonstrating that the virus belongs to sub-lineage B.1.1.464 of SARS-CoV-2. None of the amino acid mutations described on the spike protein and considered associated with adaptation to mink was present in the sequence. Matching sequences from sub-lineage B.1.1.464 have previously been described from at least 14 countries globally in samples originating from people. Moreover, this sub-lineage has also been detected in mink in two other countries. B.1.1.464 has not been detected previously in Sweden.

Movement restrictions and strict biosecurity measures have been in place for all mink farms in Sweden since fall 2020, and all people associated with the farm in question have either had the infection (COVID-19 confirmed in farm workers in November 2020) or been vaccinated, or both. Moreover, a serological screening carried out in December 2020 demonstrated that also the mink on the farm had been exposed to SARS-CoV-2 although virus could not be detected at the time. Further investigations related to the outbreak are ongoing.

Whereas this is the first case detected in Sweden during 2021, SARS-CoV-2 (sub-lineage B.1.1.39) was detected in 13 farms, all located in Sölvesborg, the County of Blekinge, in November 2020. Moreover, a serological screening carried out in December 2020 and which covered the majority of mink fur farms active at the time (26 out of 28), suggested that most of them had been exposed to the virus. High prevalence of specific SARS-CoV-2 antibodies were detected in mink from 23 farms, including in all farms that previously had been tested positive for SARS-CoV-2 nucleic acids. In the remaining three farms, all samples tested negative. Moreover, an active surveillance program targeting mink farmworkers demonstrated a clear association between presence of SARS-CoV-2 among the mink and COVID-19 in people associated to mink, supported by the results of the whole genome sequencing.

Given the extensive spread of SARS-CoV-2 among Swedish mink experienced during the fall 2020, with spill-over to people associated to the affected farms, a concern was raised regarding the potential public health risk of allowing breeding to occur

during the following season (i.e. spring 2021). With this in mind, and based on a risk assessment, a decision was taken to ban mink breeding during 2021.

For more information about the surveillance of mink-associated infections with SARS-CoV-2 in Sweden please see: <https://www.sva.se/media/8d92f13caebf77b/mink-associated-infections-with-sars-cov-2.pdf>

## Control measures at event level

### Domestic control measures

Applied

- Movement control inside the country
- Official destruction of animal products
- Official disposal of carcasses, by-products and waste
- Surveillance outside containment and or the protection zone
- Traceability
- Surveillance within containment and or the protection zone

### Wild control measures

### Diagnostic

Clinical signs - Yes

Method of diagnostic - Diagnostic test

Test name	Category	Test type	Laboratory	Species sampled	Outbreaks	Tested from	Tested until
Gene sequencing	Genotyping	Laboratory Test	National Veterinary Institute (SVA) National Laboratory	Mustelidae	0	19/08/2021	27/08/2021
Real-time polymerase chain reaction (real-time PCR)	Nucleic acid detection	Laboratory Test	National Veterinary Institute (SVA) National Laboratory	Mustelidae	0	19/08/2021	22/09/2021

## Quantitative data summary

### Measuring unit - Animal

Species	Type	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated	Outbreak morbidity	Outbreak mortality
Mustelidae	New	-	1	1	-	-	0	-	-
Mustelidae	Total	11000	2	2	-	-	0	0.02	0.02
All species	New	-	1	1	-	-	0	-	-
All species	Total	11000	2	2	-	-	0	0.02	0.02

Event morbidity - 0.02

Event mortality - 0.02

Morbidity range - 0.02-0.02

Mortality range - 0.02-0.02

## Outbreaks

### ob\_89972-Skara

Started on - 19/08/2021

First administrative division - Västra Götaland

Second administrative division - Skara

Epidemiological unit - Farm

Geographic coordinates - 58.3562,13.3929

Approximate location - Yes

Location - Skara

Description of the affected population This is a mink farm with breeding animals for fur production. Samples were taken for analysis within a surveillance program which covers all mink farms in the country and is in accordance with Commission Implementing Decision (EU) 2021/788 for the monitoring and reporting of infections with SARS-CoV-2 in certain animal species. No increased morbidity or mortality had been observed on the farm.

Species	Type	Measuring unit	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated
Mustelidae	New	Animal	-	1	1	-	-	0
Mustelidae	Total	Animal	11000	2	2	-	-	0
All species	New	Animal	-	1	1	-	-	0
All species	Total	Animal	11000	2	2	-	-	0

Outbreak name	Test	Result	Result date
ob_89972-Skara	Gene sequencing	Positive	27/08/2021
ob_89972-Skara	Real-time polymerase chain reaction (real-time PCR)	Positive	19/08/2021



© Mapbox | © OpenStreetMap

Prints use map data from Mapbox and OpenStreetMap and their data sources.

To learn more, visit <https://www.mapbox.com/about/maps/> and <http://www.openstreetmap.org/copyright>.

Les localisations des foyers ont été renseignées par les Services vétérinaires compétents et peuvent ne pas représenter l'emplacement exact d'un foyer. L'OIE n'assume aucune responsabilité quant aux données affichées.