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Subject: PRO/AH/EDR> COVID-19 update (302): animal, Sweden, mink, OIE

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CORONAVIRUS DISEASE 2019 UPDATE (302): ANIMAL, SWEDEN, MINK, OIE

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the

International Society for Infectious Diseases

<http://www.isid.org>

Date: Mon 30 Aug 2021

Source: OIE-WAHIS (World Animal Health Information System) 2021 [edited]

<https://wahis.oie.int/#/report-info?reportId=38730>

SARS-CoV-2 in animals (inf. with), Sweden

Summary

Report type: Immediate notification

Started: [19 Aug 2021]

Confirmed: [19 Aug 2021]

Reported: 30 Aug 2021

Reason for notification: Emerging disease

Event morbidity (%): 0.01

Event mortality (%): 0.01

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.

Diagnostic details: Clinical, laboratory test

Causal agent: SARS-CoV-2

This event pertains to the whole country.

New outbreaks (1)

Outbreak location 1: Skara, Vastra Gotaland

Started: 19 Aug 2021

Ended: Ongoing

Epidemiological unit: Farm

Total animals affected:

Species / Susceptible / Cases / Deaths / Killed and disposed of / Slaughtered or killed for commercial use / Vaccinated
 Mustelidae / 11 000 / 1 / 1 / - / - / 0

Affected population description: 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.

Epidemiology

Source of the outbreak(s) or origin of infection: Unknown or inconclusive

Epidemiological comments: SARS-CoV-2 nucleic acids were detected using qRT-PCR in one out of 6 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 2 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 1st case detected in Sweden during 2021, SARS-CoV-2 (sub-lineage B.1.1.39) was detected in 13 farms, all located in Solvesborg, 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 3 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 spillover 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: traceability; surveillance within containment and/or the protection zone; surveillance outside containment and/or the protection zone; official disposal of carcasses, by-products and waste; official destruction of animal products; movement control inside the country

Diagnostic test results

Laboratory name and type / Species / Outbreaks / Test / Test result date / Result

National Veterinary Institute (SVA) (national laboratory) / Mustelidae / 1 / Real time-polymerase chain reaction (real time-PCR) / - / -

National Veterinary Institute (SVA) (national laboratory) / Mustelidae / 1 / Gene sequencing / - / -

[The location of the outbreak can be seen on the interactive map included in the OIE report at the source URL above.]

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Communicated by:

ProMED

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[The Swedish veterinary authorities included in this current report (see epidemiological comments section) information about the

surveillance of mink-associated infections with SARS-CoV-2 in the country. The entire surveillance report is available at <https://www.sva.se/media/8d92f13caebf77b/mink-associated-infections-with-sars-cov-2.pdf>.

Readers are encouraging to read OIE's Technical Factsheet "Infection with SARS-CoV-2 in Animals" at <https://www.oie.int/app/uploads/2021/05/en-factsheet-sars-cov-2.pdf> (last updated in May 2021). - Mod.CRD


HealthMap/ProMED map:
Sweden: <https://promedmail.org/promed-post?place=8643313,108>

See Also

- COVID-19 update (33): animal, Sweden, zoo, tiger, lion 20210125.8134087
2020

- COVID-19 update (546): animal, Sweden, mink, surveillance, spread, control, RFI 20201220.8033896
COVID-19 update (477): animal, Sweden, mink, spread, genotyping 20201107.7924269
COVID-19 update (468): animal, Sweden, mink, 1st rep, OIE 20201103.7912846
COVID-19 update (461): animal, Sweden, mink, 1st rep, RFI 20201030.7903582
.....crd/rd/mpp

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