



Published Date: 2020-12-20 22:29:14 CET

Subject: PRO/AH/EDR> COVID-19 update (546): animal, Sweden, mink, surveillance, spread, control, RFI

Archive Number: 20201220.8033896

CORONAVIRUS DISEASE 2019 UPDATE (546): ANIMAL, SWEDEN, MINK, SURVEILLANCE, SPREAD, CONTROL, REQUEST FOR INFORMATION

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: Sun 20 Dec 2020 [accessed]

Source: OIE COVID-19 Portal/Events in animals/Sweden situation update 3 [edited]

https://www.oie.int/fileadmin/Home/MM/Sweden_1.12.2020.pdf

[An e-mail from Sweden's Veterinary Service to OIE's Information Department, dated 1 Dec 2020]:

In the framework of the ongoing surveillance in Swedish mink farms, the National Veterinary Institute (SVA) has confirmed 3 further cases of infection with SARS-CoV-2 in mink farms in the southeast part of the country, in the county of Blekinge.

All positive farms are in the same area as the 1st case detected, in which approximately 20 of Sweden's 40 mink farms are situated. In total, there are now 13 mink farms confirmed as infected with SARS-CoV-2 in Sweden. No increased morbidity or mortality have been reported from the farms.

The surveillance, initiated mid-October 2020, is based on dead minks (aiming at 5 mink per week and farm) submitted to SVA and encompasses all farms in the country. At SVA, samples are collected with swabs from the oral cavity and pharynx and analysed with real-time PCR. Positive samples from each farm are further analysed with whole genome sequencing.

Movement restrictions and strict biosecurity measures have been imposed to all mink farms in Sweden, and not only for those infected.

Notably, Sweden has decided not to stamp out animals at the infected farms at this point. The Swedish mink population is small, approximately 600 000 animals, of which around 80% [around 480 000] already were planned to be killed for fur production during November and December 2020. Based on this, it was deemed that a decision to stamp out would have limited additional effect and would not speed up the process of reducing the number of susceptible animals.

The killing and pelting of the mink have now almost come to an end and will be completed in the middle of this week. When the

pelting is finalised, Sweden will only have approximately in total 100 000 breeding minks in its farms. Possible persisting SARS-CoV-2 circulation in remaining breeding mink will be monitored by serological and virological sampling during the coming months.

Through the Public Health Agency, a surveillance scheme targeting humans in contact with mink (mink farm owners and family as well as staff) has been initiated in order to assess the risk for mink-to-human and human-to-mink transmission, and to allow a continuous monitoring of possible virus evolution related to SARS-CoV-2 transmission in mink farms. Samples collected from positive human cases in the affected municipalities are also followed up with whole genome sequencing.

To date, all sequenced SARS-CoV-2 strains detected from mink and humans at the infected farms cluster together and belong to the Lineage B.1.1.39. None of the amino acid mutations described on the spike protein of the recent Danish mink SARS-CoV-2 viruses has so far been detected in the spike gene of the Swedish mink SARS-CoV-2 viruses.

This information is transmitted to the OIE in the context of Article 1.1.6 in the Terrestrial Animal Health Code in order to provide the relevant information arising from field observations to enable the OIE to have more clarity on which animal species are susceptible to infection and may potentially be involved in the epidemiology of the human disease [see comment].

[On behalf of the Swedish Chief Veterinary Officer (CVO) and OIE Delegate, Dr. Hakan Henrikson, Lena Hellqvist Björnerot, Deputy CVO Sweden]

--

Communicated by:

ProMED-mail

<promed@promedmail.org>

[The reference to article 1.1.6 in OIE's Terrestrial Animal Health Code, included at the end of the above Swedish report, means that COVID-19 in Sweden's minks is not an "emerging disease." This is based upon the statement that no circulation in minks or in humans on mink farms of the amino acid mutations described on the spike protein of the recent Danish mink SARS-CoV-2 viruses has been demonstrated in Sweden as of the time of submission, which means no mink-to-human infection was reported in Sweden until 3 Dec 2020 (20201218.8027113).

Notably, Greece submitted to the OIE a written report in a similar format on 3 Dec 2020 (20201208.80026360), indicating that no Y453F mutation in the spike (S) protein of the virus, referred to as mink-related-variant, was detected at that time, leading to the information being transmitted in the context of Article 1.1.6 in the Terrestrial Animal Health Code, similar to Sweden's report.

However, 2 weeks later, Greece reported the discovery of the Y453F mink mutation in 5 sequenced SARS-CoV-2 genomes from human cases directly related to mink and in minks on one of the farms tested. This led Greece to the submission of an immediate notification of COVID-19 in minks as an "emerging disease," under article 1.1.4 in OIE's Terrestrial Animal Health Code (20201218.8027113).

Is Sweden's mink industry about to undergo a similar experience? Final results of Sweden's national surveillance on the mink farms and the humans involved, detecting or excluding mink mutants, are anticipated. - Mod.AS

HealthMap/ProMED map:

Sweden: <https://promedmail.org/promed-post?place=8033896,108>]

See Also

COVID-19 update (542): animal, Greece (EM) mink mutation, human, OIE 20201218.8027113

COVID-19 update (536): animal, USA (UT) wild mink, 1st case 20201213.8015608

COVID-19 update (535): Denmark, animal, mink, zoonotic, cat, RFI 20201213.8015149

COVID-19 update (530): animal, mink, research, experimental infection, vaccine 20201210.8009205
COVID-19 update (531): animal, Canada (BC) mink, OIE 20201210.8008864
COVID-19 update (527): animal, Greece (WM) mink, spread, genome analysis 20201208.8002636
COVID-19 update (526): Canada (BC) animal, mink, human 20201208.8002622
COVID-19 update (520): Denmark, Netherlands, mink, human-animal interface, WHO 20201204.7994061
COVID-19 update (516): China (Hong Kong) animal, dog, Lithuania, mink, OIE 20201203.7986508
COVID-19 update (510): animal, mink, Lithuania, Poland, 1st reports, France, OIE 20201127.7976927
COVID-19 update (507): animal, mink, Netherlands spread, Italy control 20201125.7972425
COVID-19 update (503): animal, France, mink, 1st rep 20201123.7965554
COVID-19 update (501): Denmark, Netherlands, mink, human-animal interface 20201122.7963766
COVID-19 update (498): Denmark, animal, mink, zoonotic 20201120.7959431
COVID-19 update (490): animal, Greece (EM) mink, 1st report, OIE, assessment 20201115.7944705
COVID-19 update (487): Denmark, animal, mink, zoonotic, risk assessment ECDC 20201112.7939110
COVID-19 update (482): animal, Denmark, mink, zoonotic, eradication, discussed 20201109.7929573
COVID-19 update (477): animal, Sweden, mink, spread, genotyping 20201107.7924269
COVID-19 update (475): animal, Denmark, mink, spike protein sequences 20201106.7922587
COVID-19 update (473): animal, Denmark, mink, mutation, eradication, RFI 20201105.7918210
COVID-19 update (471): animal, Denmark, mink, zoonotic, eradication 20201104.7916300
COVID-19 update (468): animal, Sweden, mink, 1st rep, OIE 20201103.7912846
COVID-19 update (464): animal, Denmark, mink, control, One Health 20201101.7906484
COVID-19 update (461): animal, Sweden, mink, 1st rep, RFI 20201030.7903582
COVID-19 update (458): animal, Italy, mink, RFI 20201028.7897986
COVID-19 update (445): animal, Netherlands, Denmark, mink, spread, epidemiology 20201019.7873326
COVID-19 update (439): animal, Denmark, mink, spread, control 20201014.7861560
COVID-19 update (414): animal, Netherlands (LI), Denmark (ND), farm mink, spread 20200925.7813579
COVID-19 update (406): animal, Netherlands (LI), Denmark (ND), farm mink, spread 20200918.7794239
COVID-19 update (401): Netherlands (NB), Denmark, farmed mink, spread 20200914.7777661
COVID-19 update (394): Netherlands (NB) animal, farmed mink, spread 20200908.7759382
COVID-19 update (387): Netherlands, mink, animal & public health, research 20200902.7740793
COVID-19 update (382): Netherlands, animal, farmed mink, spread, control 20200830.7730463
COVID-19 update (376): animal, ferret, mink, comment 20200827.7721923
COVID-19 update (366): animal, USA (UT) mink 20200818.7692815
COVID-19 update (363): animal, Denmark (ND) Netherlands (NB,LI) mink, spread 20200817.7687830
COVID-19 update (340): animal, China, enviro monitoring, Netherlands (NB), mink 20200801.7635820
COVID-19 update (334): animal, Netherlands, mink, spread, UK, cat, 1st rep, OIE 20200727.7617582
COVID-19 update (324): Netherlands (NB) animal, farmed mink, spread 20200719.7591013
COVID-19 update (317): Netherlands (NB) animal, farmed mink, spread 20200716.7578453
COVID-19 update (307): Netherlands (NB), Denmark (ND) farmed mink, spread, control 20200708.7553067
COVID-19 update (301): Denmark (ND) Netherlands (NB) farmed mink, spread, control 20200703.7536980
COVID-19 update (284): Denmark (ND) animal, farmed mink, spread, dog 20200624.7506728
COVID-19 update (281): Netherlands (NB, LI) farmed mink, spread, animal, global 20200623.7502849
COVID-19 update (266): Denmark (ND) animal, farmed mink, 1st rep 20200617.7479510
COVID-19 update (251): Netherlands (NB, LI) animal, farmed mink, spread, culling 20200610.7453845
COVID-19 update (248): Netherlands (NB, LI) animal, mink, spread, culling, cat 20200609.7446478
COVID-19 update (236): Netherlands (NB, LI) animal, farmed mink, spread, culling 20200604.7427849
COVID-19 update (230): Netherlands (NB, LI) animal, farmed mink, spread, control 20200602.7420433
COVID-19 update (215): Netherlands (NB) animal, mink-to-human, epidem., control 20200527.7385049
COVID-19 update (209): Netherlands (NB) farmed mink, animal-to-human, cat, epid 20200525.7375359
COVID-19 update (198): Netherlands (NB) farmed mink, animal-to-human infect susp 20200520.7359976
COVID-19 update (189): Netherlands (NB) animal, farmed mink, research, cat, dog 20200517.7344274
COVID-19 update (177): Netherlands (NB) animal, farmed mink, Spain (CT) cat susp 20200512.7328587
COVID-19 update (174): Netherlands (NB) animal, farmed mink, comment 20200511.7323845

COVID-19 update (169): Netherlands (NB) animal, farmed mink, spread, rabbit susp 20200509.7316646
COVID-19 update (154): Netherlands (NB) animal, farmed mink, research 20200503.7294846
COVID-19 update (146): Netherlands (NB) animal, farmed mink, epidemiology 20200501.7286113
COVID-19 update (135): Netherlands (NB) animal, farmed mink 20200427.7272289
.....arn/msp/lxl

ProMED-mail alerts

