Published Date: 2020-06-24 00:05:46 CEST

Subject: PRO/AH/EDR> COVID-19 update (281): Netherlands (NB, LI) farmed mink, spread, animal, global

Archive Number: 20200623.7502849

CORONAVIRUS DISEASE 2019 UPDATE (281): NETHERLANDS (NORTH BRABANT, LIMBURG) FARMED MINK, SPREAD, ANIMAL, GLOBAL

****

A ProMED-mail post
http://www.promedmail.org
ProMED-mail is a program of the
International Society for Infectious Diseases
http://www.isid.org

In this update:
[1] Minks, Netherlands, spread
[2] Netherlands, end mink farming in sight
[3] Overview SARS-CoV-2 in animals - global

******

[1] Minks, Netherlands, spread
Date: Tue 23 Jun 2020
Source: WUR [Wageningen University & Research] News [in Dutch, trans. edited]
https://www.wur.nl/nl/nieuws-wur/Show/COVID-19-geconstateerd-op-twee-nertsenbedrijven.htm

Since 23 Apr 2020, 17 Dutch mink companies have diagnosed COVID-19 in minks. Research shows that minks have transmitted the virus to each other. Furthermore, it is plausible that mink infections have occurred in humans. Since that became known, a mandatory screening of all Dutch mink companies has been instituted. Mink farms infected with COVID-19 are culled.

--
Communicated by:
ProMED-mail
<promed@promedmail.org>

[The 2 most recent infected mink holdings were lab confirmed on Sun 21 Jun 2020. Both were located in the municipality Gemert-Bakel in the province North Brabant. They were reported in a letter to the Dutch House of Representatives, submitted by Ministers of Health and of Agriculture, on Mon 22 Jun 2020 (https://www.rijksoverheid.nl/documenten/kamerstukken/2020/06/22/kamerbrief-update-besmettingen-nertsenbedrijven). - Mod.AS]

******

[2] Netherlands, end mink farming in sight
Date: 23 Jun 2020
Source: MBS News [edited]
https://www.mbs.news/en/2020/06/chamber-wants-to-end-mink-farming-this-year.html

The [Dutch] House of Representatives wants mink farming in the Netherlands to end this year [2020]. Minister of Agriculture Carola Schouten must come up with an improved quit scheme within a week. It must be so attractive that all mink farmers will have stopped at the end of 2020.

Several [in fact, 17 as of 22 Jun 2020] mink companies have been culled during the recent weeks after being found to be infected by the coronavirus. The animals also appeared to be able to transmit the disease to humans. As a result, mink infections pose a potential public health risk. For all mink farms in the Netherlands, a transport ban and a visit ban in the holdings is in force.

The House of Representatives wants Schouten to do everything to prevent mink farmers from starting over after their business has been cleared.

The end of mink farming was already in sight. A general ban will apply from 2024. The House wants this to happen earlier, provided there is decent compensation for mink farmers.

--
Communicated by:
ProMED-mail
<promed@promedmail.org>

******

[3] Overview SARS-CoV-2 in animals - global
Date: Fri 19 Jun 2020
Source: The Washington Post [edited]
https://www.washingtonpost.com/science/2020/06/19/humans-may-have-caught-coronavirus-mink-thats-wake-up-call-study-infections-animals-researchers-say/

The minks on Dutch fur farms 1st got sick in mid-April [2020], showing symptoms ranging from runny noses to severe respiratory distress. They had caught the novel coronavirus from human handlers, the government later said, and soon farmed minks appeared to have passed it back to 2 other people, in the world's 1st reports of animal-to-human transmission since the pandemic began.

The Netherlands has since culled more than 500 000 minks from 13 [now 17] infected fur companies. The goal of the grim task, set to continue until the farms are virus-free, is to snuff out the possibility of the animals becoming a reservoir for the virus that causes Covid-19, which could stymie efforts to end a pandemic that has killed nearly half a million people worldwide.

Some researchers say that although the chances of that happening appear minimal, the implications are too grave to dismiss. In a commentary published Thursday [18 Jun 2020] in the Lancet Microbe [ref. 1], researchers at University College London called for widespread surveillance of pets, livestock, and wildlife. Studies on animal susceptibility have been small, limited and, in the case of pigs, conflicting, they wrote.

"We need to develop surveillance strategies to ensure we don't get taken by surprise by a large outbreak in animals, which could pose a threat not just to animal health but to human health as well," co-author Joanne Santini, a professor of structural and molecular biology, said in a statement.

The steps being taken in the Netherlands, which also include surveillance of cats at the farms and wild mink relatives called martens, are among the broadest efforts to understand how a zoonotic virus that originated in animals before hopping to humans may now be spreading back to animals. In the 6 months since the outbreak began, cases have been reported of human transmission to dogs, cats, tigers, and lions in addition to minks. Laboratory experiments have found that ferrets, hamsters, monkeys, and other mammals are also susceptible to the virus.

Scientists and public health officials emphasize that humans are the overwhelming drivers of the coronavirus's spread and that the chance of becoming sickened by infected animals appears to be minute. But researchers say the lab results and the small but growing number of cases in animals are reason for far more extensive study of how the virus can move between species.

"We know that these viruses are capable of mutating," said Peter Rabinowitz, a physician who directs the University of Washington Center for One Health Research, which is studying the virus in household pets. "There could be changes in the virus, and these human-animal transmission events could play more of a role in the future, and we have to be more vigilant."

Although the novel coronavirus is a zoonotic disease believed to have originated in horseshoe bats, the Centers for Disease Control and Prevention and the WHO initially played down the idea of transmission to animals, saying there was no evidence they could be infected. After reports of infected dogs emerged from Hong Kong, they said there was no evidence animals could transmit the virus to humans. Now, the CDC says there is no evidence animals "play a significant role" in transmission but advises socially distancing pets from non-household members and isolating pets from people with COVID-19, the disease caused by the coronavirus.

The shifting messaging was imprudent and confusing, said J. Scott Weese, a professor at Ontario Veterinary College who in January [2020] argued on his blog that we should assume the virus could infect other species "until proven otherwise." From the start of the outbreak, he said, patients should have been asked about contact with animals and quarantine protocols should have taken exposed animals into account, as was done in Hong Kong.

"It's better to prevent problems, and if you don't look, you can't act," Weese said in an email. "Hopefully, the animal aspect is a niche thing that won't have much relevant impact on humans. However, the potential risk of this virus affecting livestock, pets, and wildlife was ignored."

Without large numbers of cases, there have been concerns over whether warnings about the potential of transmission to or from animals might prompt people to abandon pets or harm other animals, researchers say.

"If everybody drops their dog and cat off at the animal shelter because they're concerned that they're going to get COVID-19 from their pet, that becomes a real serious animal welfare issue," said Katie Kuehl, a clinical instructor at Washington State University's veterinary school.

Kuehl and Rabinowitz are co-leading one of a handful of studies now aimed at better understanding human-to-pet transmission. They're collecting swabs and blood samples from cats, dogs, ferrets, and hamsters owned by coronavirus patients in Washington state and asking owners questions about how they interact with their pets -- Do they sleep together? Share dishes? -- to determine risk factors.

Weese is leading a similar study in Ontario. Researchers at Tufts's Cummings School of Veterinary Medicine have sampled about 400 animals -- mostly dogs and cats but also bats, pigs, and horses -- as part of a 2-pronged study that is also following human-animal pairs over time. All tests have been negative, said virologist Jonathan Runstadler.

Given the coronavirus's animal origin, "It's not too far a leap for all of us to say, Well, what can it do now? Is it liable to infect another animal host?" said Runstadler, who added that one motivation for the study was to learn whether staff at the school's veterinary clinics might be at risk from infected patients.

Other researchers are looking at wildlife. In a recent paper published by the U.S. Geological Survey, experts on bats, wildlife, epidemiology and viruses concluded that there is a "non-negligible risk" of transmission of the coronavirus from humans to bats

on this continent and a 33 percent chance the virus could spread within a North American bat population. That risk could be dramatically reduced if people who handle bats use personal protective equipment, according to the paper, which was based on preexisting knowledge, not surveillance or lab experiments.

For the time being, researchers say cats should be a focus, because studies have found they are highly susceptible to the coronavirus and because they are common pets and roam freely in many places. In a study published last month [May 2020] in the New England Journal of Medicine, scientists infected cats with the virus and found that those cats could infect other cats. No felines showed symptoms, but the amount of virus they shed in nasal swabs was similar to that shed by some humans, said co-author Peter Halfmann, a University of Wisconsin virologist.

"If a human can transmit to a human with this amount of virus being shed, it's definitely possible for a cat to transmit to a human," Halfmann said.

This is unlikely to be significant for most pet owners because cats that stay indoors would only be infected by humans in the household. But it could be important for animal shelters that house many cats, which Halfmann said his team is starting to study.

Cats are also on the radar in the Netherlands, where the mink farm outbreaks began in a coronavirus hot spot in the nation's south. Several cats that live on the farms tested positive for the virus or antibodies, and it is unclear what role they played in transmission, said Arjan Stegeman, a veterinary epidemiologist at Utrecht University who chairs an expert group that advises the Dutch government on animal diseases.

But the timing of infections and genetic sequencing of virus samples from sickened minks and farmworkers show the initial cases were brought into the barns by humans and provide "a very convincing case" that 2 humans were later infected by minks, said Stegeman, who helped lead the investigations. That the virus caught fire among minks was not surprising, because the animals are related to ferrets, which are known to be susceptible, Stegeman said. Denmark on Wednesday [17 Jun 2020] said that a mink farm there had also been infected and would be culled [see comment].

Stegeman said there's no cause for concern about a cat reservoir yet, but he and colleagues are now studying cats owned by coronavirus patients anyway.

"It makes sense to do research on it now" and to stop the spread among mink, Stegeman said. Otherwise, he added, "Once we have very limited human-to-human transmission ... you could get again a jump from an animal reservoir to humans. Things would start all over again."

[Byline: Karin Brulliard]

--
Communicated by:
ProMED-mail
<promed@promedmail.org>

[Reference
---
1. Santini JM, Edwards SJL. Host range of SARS-CoV-2 and implications for public health. Lancet Microbe 2020. Published Online 18 Jun 2020; https://doi.org/10.1016/S2666-5247(20)30069-0.

The Danish SARS-CoV-2 outbreak in minks was duly reported to the OIE; see at https://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/COV-19/Denmark_Sars-CoV-2_17-06-2020.pdf.

Useful COVID-19-related information for pet owners is available in US' CDC website, at https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/positive-pet.html.

OIE's Bulletin for May 2020 is a special edition on COVID-19 accessible at https://mailchi.mp/oie.int/the-oies-role-in-global-efforts-to-combat-covid-19. - Mod.AS

HealthMap/ProMED maps:
North Brabant, Netherlands: https://promedmail.org/promed-post?place=7502849,1250
Limburg Province, Netherlands: https://promedmail.org/promed-post?place=7502849,25834]

See Also

COVID-19 update (280): animal, pangolin, research 20200623.7502805
COVID-19 update (267): animal, domestic, wild, cat, research 20200617.7480013
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 (238): USA (MN) animal, cat 20200605.7429133
COVID-19 update (236): Netherlands (NB, LI) animal, farmed mink, spread, culling 20200604.7427849
COVID-19 update (231): USA (NY) animal, dog conf. 20200602.7420541
COVID-19 update (230): Netherlands (NB, LI) animal, farmed mink, spread, control 20200602.7420433
COVID-19 update (227): animal, cat, dog, research, experimental infection 20200601.7416648
COVID-19 update (215): Netherlands (NB) animal, mink-to-human, epidem., control 20200527.7385049
COVID-19 update (212): Russia (Moskva) animal, cat, OIE 20200526.7379578
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 (183): Japan/USA, animal, research, cat, experimental infection 20200514.7337185
COVID-19 update (181): Germany (BY), France (AC), cat, OIE animal case definition 20200513.7332909
COVID-19 update (177): Netherlands (NB) animal, farmed mink, Spain (CT) cat susp 20200512.732858
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 (143): USA (NY) animal, zoo, tiger, lion, tests 20200430.7284183
COVID-19 update (141): India, animal, wild tiger, susp, clarification, RFI 20200430.7281768
COVID-19 update (138): India, animal, wild tiger, fatal 20200428.7275765
COVID-19 update (135): Netherlands (NB) animal, farmed mink 20200427.7272289
COVID-19 update (130): USA (NY) animal, zoo, tiger, lion, new cases 20200425.7266556
COVID-19 update (124): USA (NY) animal, cat, lion, OIE 20200423.7259119
COVID-19 update (123): USA (NY) animal, cat, conf 20200422.7256272
COVID-19 update (113): USA (NY) cat, animal, susp, RFI 20200418.7240811
COVID-19 update (88): Germany, animal, research, pig, chicken, bat, ferret 20200407.7196506
COVID-19 update (85): USA (NY) animal, tiger, OIE 20200406.7191480
COVID-19 update (84): USA animal, tiger 20200406.7191352
COVID-19 update (76): China (HU) animal, cat, owned, stray, seropositive 20200403.7179946
COVID-19 update (75): China (Hong Kong) animal, cat, OIE 20200403.7179945
COVID-19 update (70): China (Hong Kong) animal, cat, pets & stock 20200402.7173286
COVID-19 update (58): Belgium, animal, cat, clinical case, RFI 20200327.7151215
COVID-19 update (56): China (Hong Kong) animal, dog, final serology positive 20200326.7146438
COVID-19 update (50): China (Hong Kong) animal, dog, 2nd case PCR positive, OIE 20200323.7129951
COVID-19 update (45): China (Hong Kong) animal, dog, 2nd case PCR positive 20200319.7112693
COVID-19 update (37): China (Hong Kong) animal, dog, prelim. serology negative 20200312.7081842

COVID-19 update (30): China (Hong Kong) animal, dog, susp, serology pending 20200306.7057595
COVID-19 update (25): China (Hong Kong) animal, dog, susp, OIE 20200302.7040373
COVID-19 update (22): companion animal, dog susp, RFI 20200229.7036661
COVID-19 update (17): China, animal reservoir, wildlife trade & consumption 20200225.7024245
COVID-19 update (11): animal reservoir, intermediate hosts, pangolin susp 20200220.7009213
COVID-19 update (08): companion animal, RFI 20200218.7002276
COVID-19 update (06): animal reservoir, intermediate hosts 20200217.6997782
Novel coronavirus (40): animal reservoir, pangolin poss intermediate host, RFI 20200210.6972104
Novel coronavirus (28): China (HU) animal reservoir 20200201.6943858
Novel coronavirus (22): reservoir suggested, bats 20200129.6930718
Novel coronavirus (20): China, wildlife trade ban 20200127.6922060
Novel coronavirus (18): China (HU) animal reservoir 20200125.6915411
Novel coronavirus (15): China (HU) wild animal sources 20200123.6909913
Novel coronavirus (03): China (HU) animal reservoir suggested, RFI 20200114.6887480
Novel coronavirus (01): China (HU) WHO, phylogenetic tree 20200112.6885385
Undiagnosed pneumonia - China (HU) (07): official confirmation of novel coronavirus 20200108.6878869
Undiagnosed pneumonia - China (05): (HU) novel coronavirus identified 20200108.6877694
Undiagnosed pneumonia - China (03): (HU) updates, SARS, MERS ruled out, WHO, RFI 20200105.6872267
Undiagnosed pneumonia - China (01): (HU) wildlife sales, market closed, RFI 20200102.6866757
2019

Undiagnosed pneumonia - China: (HU) RFI 20191230.6864153
.....arn/msp/ml

ProMED-mail alerts