



Reporting on SARS-CoV-2 as per CID 2021/788

PAFF – Section Animal Health and Welfare

13 July 2021

Unit G2 – Animal Health

Reporting on:

- SARS-CoV-2 in minks and other animals of the family *Mustelidae* and in raccoon dogs
- CID 2021/788 adopted on 12 May 2021.
- Six outbreaks reported by Poland and Spain.

Poland

- One SARS-CoV-2 outbreak in commercial farm with 37 000 kept minks (2 farms)
- Confirmed on 21/06/2021 with PCR
- Location:
 - Lubelskie voivodeship,
 - powiat Biała Podlaska,
 - Wisznice Kolonia
- Molecular epidemiology: *ongoing*



Poland

- Measures in place: culling, ban on movements, regionalization (intensified veterinary supervision in the area of 10 km from the outbreak), no treatment of affected animals.
- No clinical signs in animals (no mortality no morbidity)
- 2 farms in 10Km radius from outbreak: tested for SARS-CoV-2 – negative results,

Poland

- Possible source of the virus: worker with positive test for SARS-CoV-2
- Related epidemiological data on human cases:
 - farm owners (2 people) – vaccinated, remain under epidemiological supervision,
 - employees (6 people) – tested: one was with positive result (isolation),
 - the infected worker was contacted by 3 people who were quarantined for 10 days,
 - a positive sample was sent to the National Institute of Public Health for sequencing – *research is progress*,
 - permanent cooperation between the District Veterinary Officer in Biała Podlaska and the District State Sanitary Station in Biała Podlaska

Spain

- **5 new SARS-CoV-2 outbreaks** in minks confirmed by RT-PCR:
- **2021/5 to 2021/9** all located in province of A Coruña.
- Possible source of virus: still being studied
- No clinical sings nor fatality in any outbreak
- Control measures:
 - Movement restr. on animals/products/by prod. and census
 - Epidemiological survey and tracing of contact farms
 - Review and enhancement of biosecurity measures
 - Monitoring and clinical follow-up of the animals
- Communication and coordination among **animal health, public health and environmental authorities**



Spain - 2021/5

- Location:
Province: A Coruña
Municipality: Abegondo
- Farm with 5.555 minks: 980 breeding females and 4.575 young
- Confirmation date: 21 June 2021 (RT-PCR) - based on surveillance on dead minks.
- Two animals with respiratory symptoms were tests (negative test results)
- Related data on human cases: all farm workers vaccinated and tested – all neg.

Spain - 2021/6

- Location:
Province: A Coruña
Municipality: Abegondo
- Farm with 5.510 minks: 1.110 breeding females and 4.200 young
- Confirmation date: 22 June 2021 (RT-PCR) - based on surveillance on dead minks.
- Related data on human cases: all farm workers vaccinated and tested – all neg.

Spain - 2021/7

- Location:
Province: A Coruña
Municipality: A Baña
- Farm with 6.500 minks: 1.200 breeding females and 5.300 young
- Confirmation date: 22 June 2021 (RT-PCR) - based on surveillance on dead minks.
- Related data on human cases: all farm workers vaccinated and tested – all neg.

Spain - 2021/8

- Location:
Province: A Coruña
Municipality: Santiago de Compostela
- Farm with 19,231 minks: 3.102 breeding females and 16.129 young
- Confirmation date: 23 June 2021 (RT-PCR) - based on surveillance on dead minks.
- Related data on human cases: **One farm worker** underwent PCR on 25 May 2021, with a **positive result for SARS-CoV**.

Spain - 2021/9

- Location:
Province: A Coruña
Municipality: Oza-Cesuras
- Farm with 9.847 minks: 1.854 breeding females and 8.020 young
- Confirmation date: 28 June 2021 (RT-PCR) - based on surveillance on dead minks.
- Related data on human cases: four farm workers vaccinated + one farm worker with only one vaccine shot – all five workers tested and resulted neg.

Spain - Genetic Sequencing

- Outbreak **1/2020**: Puebla de Valverde Municipality, Teruel Province (Aragón Autonomous Community):
- In all sequences, **D614G** mutation was identified in the sequence codifying for the spike protein, mutation that defines the predominant clade present in Spain and Europe when the outbreak 1/2020 was detected.
- Y453F mutation described in cluster 5, as well as the rest of changes that define this cluster, that appeared in some of SARS-CoV-2 positive mink farms in Denmark, were *not present* in any of the analysed sequences.
- **N501T** mutation was present in all sequences. This site is related to an adaptation to the host and to antigenic drift that is under intensive study given that this position is part of the group of mutations identified in the United Kingdom variant (N501Y).

Spain - Genetic Sequencing

- Outbreak **1/2021**: A Baña Municipality; A Coruña Province (Galicia Autonomous Community):
- In all sequences, **D614G** mutation was identified in the sequence codifying the spike protein, mutation that defines the predominant clade present in Spain and Europe when the outbreak 1/2021 was detected.
- Y453F mutation described in cluster 5, as well as the rest of changes that define this cluster, that appeared in some of SARS-CoV-2 positive mink farms in Denmark, were *not present* in any of the analysed sequences.
- **N501T** mutation was present in 1 out of the 4 sequences related to the spike gene analysed. This site is related to an adaptation to the host and to antigenic drift that is under intensive study given that this position is part of the group of mutations identified in UK viral variant VOC 202012/01 (N501Y).

Spain - Genetic Sequencing

- Outbreak **2/2021**: Navatalgordo Municipality; Ávila Province (Castilla y León Autonomous Community):
- In all sequences, **D614G** mutation was identified in the sequence codifying the spike protein, mutation that defines the predominant clade present in Spain and Europe when the outbreak 2/2021 was detected.
- **A222V** mutation was identified in the spike protein that defines the B.1.177 lineage and that was circulating widely in Spain, Europe and the rest of the world, being characteristic of the human cases.
- Y453F mutation described in cluster 5, as well as the rest of changes that define this cluster, that appeared in some of SARS-CoV-2 positive mink farms in Denmark, were *not present* in any of the analysed sequences.
- Mutations that define the variants of interest were not detected (VOC 202012/01, 501Y.V2 or B.1.1.248).

Spain - Genetic Sequencing

- Outbreak **3/2021**: Santiago Municipality; A Coruña Province (Galicia Autonomous Community):
- In all sequences, **D614G** and **A222V** mutations were identified in relation to the spike protein, mutations that define the predominant clade in Spain B.1.177, and Europe when the outbreak 3/2021 was detected.
- **Y453F** mutation described in Cluster 5 that appeared in some of the SARS-CoV-2 positive mink farms in Denmark *is present in 6 of the analysed sequences*, but not the rest of the substitutions and deletions that define this cluster.
- Mutations that define the British variant VOC 202012/01 or the South African variant 501Y.V2, or the one related to the Brazilian Amazon of the P.1 lineage were not detected.

Thank you



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