One Health Federal Interagency COVID-19 Coordination (OH-FICC) Group

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Member of the OH-FICC Zoo and Wildlife Subgroup
One Health Federal Interagency COVID-19 Coordination Group (OH-FICC)

21 Federal Agencies Representing Multiple Departments
Chaired by CDC
Coordination with >130 USG partners

Purpose: Bring together representatives from key federal agencies representing multiple departments to collaborate to address One Health technical aspects of COVID-19
OH-FICC Agency Representation
Five OH-FICC Subgroups

<table>
<thead>
<tr>
<th>Companion Animal</th>
<th>Animal Diagnostics and Testing</th>
<th>Wildlife and Zoo Animals</th>
<th>Livestock</th>
<th>Environmental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC</td>
<td>FDA-CVM, USDA-NVSL</td>
<td>DOI USGS</td>
<td>USDA-APHIS</td>
<td>ATSDR, CDC</td>
</tr>
</tbody>
</table>

Convened > 150 calls with more than > 150 state and > 130 federal partners since February 2020

Coordinate with partners such as AVMA, pet industry, USA Fur Commission, and private diagnostic labs
One Health Partners Monthly COVID-19 Webinar

Coordinated by the CDC One Health Office, in partnership with the One Health Federal Interagency COVID-19 Coordination (OH-FICC) Group

OneHealth@cdc.gov

March 16, 2021
Purpose
One Health Partners Monthly COVID-19 Webinar

- Share news and key updates, guidance, and resources on One Health aspects of COVID-19
- Summarize animal cases of SARS-CoV-2 infection in US and globally
- Provide updates on ongoing coordination around One Health aspects of COVID-19 in US
One Health Partner Collaborations During COVID-19 Response

- State, local, tribal, and territorial officials
- Non-governmental organizations
- Industry
- Healthcare providers
- Federal officials
- International organizations (WHO, FAO, OIE)
- Academia
- Practicing veterinarians
- Many others...
One Health and COVID-19 in the News

COVID-19 and the Environment: Is There a Relationship?
— Pollution and habitat destruction seen as laying groundwork for pandemics -- and not just this one

NEWS FEATURE  ·  02 MARCH 2021

The search for animals harbouring coronavirus — and why it matters
Scientists are monitoring pets, livestock and wildlife to work out whether the CoV-2 could hide, and whether it could resurge.

CORONAVIRUS

Nearly 100 pet dogs and cats have contracted COVID-19. Here's how to protect your pets

by: Addy Bink, Nexstar Media Wire
Posted: Mar 9, 2021 / 10:52 AM CST / Updated: Mar 8, 2021 / 10:52 AM CST

EDITOR'S PICK  ·  Dec 7, 2020, 09:46am EST

Pets Combat Loneliness And Stress For Those Isolated During The Covid-19 Pandemic

Animals
Nearly 10,000 mink dead from Covid-19 outbreak at Utah fur farms

Mink farms a continuing Covid risk to humans and wildlife, warn EU experts

The New York Times

At least one Zoo Knoxville tiger has the virus causing COVID-19. What happens now?

Ryan Wilcox, Knoxville News Sentinel  Published:12:58 p.m. ET Oct 30, 2020

A cougar is the latest cat to become infected with the virus.
Total Number of COVID-19 Cases in People in the US Reported to CDC, by State/Territory

Data as of March 14, 2021

CDC COVID Data Tracker
Animal Species Naturally Infected with SARS-CoV-2 Globally

- Cats
- Dogs
- Tigers
- Lions
- Snow leopards
- Gorillas
- Wild caught mink
- Puma
- Pet Ferret
- Farmed mink

Data as of March 15, 2021:
OIE: World Organization for Animal Health
USDA APHIS | Cases of SARS-CoV-2 in Animals in the United States
Countries Reporting Animals Testing Positive for SARS-CoV-2, as of March 15, 2021

Data as of March 15, 2021
OIE-WAHIS
New Animal Species Confirmed Positive for SARS-CoV-2 in the United States

- Cougar at a wild animal exhibitor facility in Texas
- Coughing, sneezing
- Fully recovered
- Likely infected from a staff member

Confirmation of COVID-19 in a Cougar at a Wild Animal Exhibitor in Texas

Published: Feb 10, 2021
Animals with Confirmed SARS-CoV-2 in the United States as of March 15, 2021

Companion Animals: 135 animals in United States confirmed positive for SARS-CoV-2 (59% of global total)
- 67 cats
- 46 dogs

Zoo Animals:
- 11 tigers
- 3 lions
- 3 snow leopards
- 3 gorillas
- 1 cougar

Wildlife:
- 1 wild mink

Production Animals: Mink Farms
- 16 mink farms

*Some or all animal cases detected through planned and targeted active surveillance investigations where animals had known or suspected exposures to SARS-CoV-2 through infected people or animals. Does not include individual number of positive farmed mink.
Animals with Confirmed SARS-CoV-2 in the United States as of March 15, 2021

135 animals (59% of global total) in United States confirmed positive for SARS-CoV-2

*Some or all animal cases detected through planned and targeted active surveillance investigations where animals had known or suspected exposures to SARS-CoV-2 through infected people or animals. Does not include individual number of positive farmed mink.

Data as of March 15, 2021
APHIS | Cases of SARS-CoV-2 in Animals in the United States
SARS-CoV-2 and Mink
What We Know About SARS-CoV-2 and Mink

- Mink are highly susceptible to SARS-CoV-2
- Extra precautions must be taken to protect mink and people on farms
Number of Mink Farms Confirmed with SARS-CoV-2: Globally

421 mink farms in 11 countries

- Denmark: 290
- Netherlands: 69
- Greece: 23
- United States: 16
- Sweden: 13
- Canada: 2
- Lithuania: 2
- Spain: 3
- Italy: 1
- France: 1
- Poland: 1

Data as of March 15, 2021: OIE: World Organization for Animal Health, USDA APHIS | Cases of SARS-CoV-2 in Animals in the United States
What Are One Health Partners Doing?

- On farm investigations
- Comparative analysis of SARS-CoV-2 sequences
- Addressing gaps in active surveillance for mink farms
- Generating guidance, recommendations, and toolkits
- ZOHU Call recording available
Mink Resources Developed through One Health Collaboration

- Guidance Documents for
  - Mink Producers
  - State Animal Health Officials
  - State Public Health Veterinarians
- Handouts
- Webinars
- Toolkit for investigating mink farms positive for SARS-CoV-2
European Food Safety Authority Report: Monitoring SARS-CoV-2 Infection in Mustelids

- Summary of animal testing and surveillance efforts
- Recommendations for surveillance on mink farms

Monitoring of SARS-CoV-2 infection in mustelids

European Food Safety Authority and European Centre for Disease Prevention and Control, Anette Boklund, Christian Gortazar, Paolo Pasquali, Helen Roberts, Søren Saxmose Nielsen, Karl Stahl, Arjan Stegeman, Francesca Baldinelli, Alessandro Broglia, Yves Van Der Stede, Cornelia Adlhoch, Erik Alm, Angeliki Melidou and Grazina Mirinaviciute
Key Messages on Mink

- No evidence that animals are playing a significant role in the spread of SARS-CoV-2 to people
- For most people in the US the risk of SARS-CoV-2 infection from animals is low
  - However, there is a higher risk for people working on mink farms
- Mink farms should follow available guidance for farmed mink and other mustelids to prevent introducing SARS-CoV-2 to mink on farms
- Worker safety is critical to protect people and animals on mink farms
- Mink farm workers with COVID-19 should avoid contact with animals, especially mink
SARS-CoV-2 and Large Cats
Large Cats Testing Positive for SARS-CoV-2 Globally

Data as of March 15, 2021:
OIE: World Organization for Animal Health
USDA APHIS | Cases of SARS-CoV-2 in Animals in the United States
Large Cats Testing Positive for SARS-CoV-2 in the US

7 facilities affected

- 11 tigers
- 3 lions
- 3 snow leopards
- 1 puma

Data as of March 15, 2021:
OIE: World Organization for Animal Health
USDA APHIS | Cases of SARS-CoV-2 in Animals in the United States
Resources on Animal Susceptibility to SARS-CoV-2

OIE Technical Factsheet: Infection with SARS-CoV-2 in Animals

<table>
<thead>
<tr>
<th>Species</th>
<th>Type of infection</th>
<th>Susceptibility to infection</th>
<th>Clinical signs</th>
<th>Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmed animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American mink (Neovison vison)</td>
<td>Natural and experimental</td>
<td>High</td>
<td>Yes in some cases</td>
<td>Yes, between minks and from mink to human</td>
</tr>
<tr>
<td>Ferrets</td>
<td>Natural and experimental</td>
<td>High</td>
<td>Yes (only in few cases)</td>
<td>Yes, between ferrets</td>
</tr>
<tr>
<td>Raccoon dogs (Nyctereutes procyonoides)</td>
<td>Experimental</td>
<td>High</td>
<td>No</td>
<td>Yes, between raccoon dogs</td>
</tr>
<tr>
<td>Rabbits (New Zealand White rabbits, Oryctolagus cuniculus)</td>
<td>Experimental</td>
<td>High</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Pigs (American Yorkshire crossbred pigs, Sus scrofa)</td>
<td>Experimental</td>
<td>Extremely low</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cattle (Bos taurus)</td>
<td>Experimental</td>
<td>Extremely low</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Poultry (chicken, ducks, and turkeys)</td>
<td>Experimental</td>
<td>None</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Animal Susceptibility to SARS-CoV-2

Very Susceptible

Confirmed transmission

- Mink*
- Ferrets
- Raccoon Dogs
- Cats*
- Hamsters
- Large Cats*
- Gorillas*
- Bats
- White Tailed Deer
- Macaques

Susceptible

Transmission not yet studied

- Rabbits
- Marmosets

Somewhat Susceptible

- Pigs
- Cattle
- Dogs*

Not Susceptible

- Poultry

* noted natural transmission
One Health Federal Interagency COVID-19 Coordination Team

Zoo and Wildlife Subgroup
Guidance to Reduce the Risk of SARS-CoV-2 Spreading between People and Wildlife

Jonathan Sleeman
Chair, Zoo and Wildlife Subgroup
One Health Federal Interagency COVID-19 Coordination Team
Reducing the Risk of SARS-CoV-2 Spreading between People and Wildlife

Considerations for Agencies or Programs Conducting Wildlife Research, Wildlife Management, and Wildlife Control Activities

Wildlife Research and Management/Control Activities: Hierarchy of controls to reduce the risk of SARS-CoV-2 spread between people and wildlife

Considerations for Wildlife Rehabilitation Facilities

Developing Risk Mitigation Measures

Wildlife Rehabilitation Activities: Hierarchy of controls to reduce the risk of SARS-CoV-2 spread between people and wildlife

Wildlife Guidance Website

On This Page
• Considerations for Members of the Public
• Considerations for Hunters
• Hierarchy of Controls to Reduce the Risk of SARS-CoV-2 Spreading between People and Wildlife
• Considerations for State, Federal, Tribal, and Territorial Wildlife Agencies
• Considerations for Wildlife Rehabilitation Facilities
• Additional Resources
Hierarchy of Controls

- **Elimination**: Physically remove the hazard
- **Substitution**: Replace the hazard
- **Engineering Controls**: Isolate people/animals from the hazard
- **Administrative Controls**: Change the way people work
- **PPE**: Protect people working/interacting with wildlife by using Personal Protective Equipment (PPE)
Companion Animals Subgroup

- Led by CDC One Health Office
- Attendees: CDC, USDA, FDA, DHS, DoD, ASPR
Clinical Signs of Companion Animals with Confirmed SARS-CoV-2 Infection in United States

- 113 cases of SARS-CoV-2 infection in companion animals the US
  - 67 cats, 46 dogs

- 45% of pets did not show clinical signs
  - Pets with signs, illness is typically mild
  - Continuing to investigate animal cases with severe outcomes

- Common clinical signs reported in pets
  - Respiratory: coughing, sneezing, nasal or ocular discharge
  - Non-specific: fever, lethargy, inappetence
  - Gastrointestinal: vomiting, diarrhea

PRELIMINARY DATA: SUBJECT TO CHANGE
Animal Diagnostics and Testing Subgroup

- Co-chaired by FDA-CVM and USDA-NAHLN
- Attendees: FDA, USDA, CDC, DoD, USGS, DHS
Veterinary Laboratory Investigation & Response Network (Vet-LIRN)

- **Necropsy Resources**
  - www.fda.gov/media/139430/download

- **Interlaboratory Comparison Exercise (ICE)**

- **Facilitating Necropsies**
  - COVID-positive deceased animals
FDA CVM COVID-19 Response

- One Health Federal Interagency COVID-19 Coordination Group (OHFICC) and Subgroup
- Drug Shortages
- Animal Food Safety
- Fraudulent Products
  - FDA has not approved any drugs for the diagnosis, cure, mitigation, treatment, or prevention of COVID-19 in animals
  - Ivermectin FAQ and consumer update
- Animal Health & Safety and COVID-19
*NEW* Why You Should Not Use Ivermectin to Treat or Prevent COVID-19

https://www.fda.gov/consumers/consumer-updates/why-you-should-not-use-ivermectin-treat-or-prevent-covid-19

Ivermectin FAQ:

Is there a vaccine to protect animals from SARS-CoV-2?

- FDA has not approved any drugs for the diagnosis, cure, mitigation, treatment, or prevention of COVID-19 in animals

- U.S. Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS) Center for Veterinary Biologics (CVB) regulates veterinary biologics, including vaccines, diagnostic kits, and other products of biological origin
  - APHIS CVB has not licensed any products to diagnose, treat, or prevent COVID-19 in animals

Animals Tested for SARS-CoV-2
Lab tests performed on or before Monday, February 15, 2021

Number of Animals Tested by State

Positive non-farmed animals: 134
Positive mink farms: 16

Testing Labs

<table>
<thead>
<tr>
<th>Number of unique labs</th>
<th>Animal Count</th>
<th>% Animal Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAHLN and NVSL Labs</td>
<td>29</td>
<td>1,794</td>
</tr>
<tr>
<td>Private Labs</td>
<td>4</td>
<td>1,137</td>
</tr>
<tr>
<td>Other Labs</td>
<td>4</td>
<td>1,869</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>4,630</td>
</tr>
</tbody>
</table>

Note: Mink are tested individually but are reported as positive by premises. The total number of tested mink premises is not available. Some of the tests do not have an animal group and therefore are excluded from the animal group and species totals and percentages.

Top Testing States

Confirmed Animals: % by Animal Groups

Tested Animals: % of Total

Confidence Animals: % by Species

Companion Cat Dog

Farmed Animals Mink 8% 21%

Wild/Captive/Zoo Bat 9%
NAHLN Response to COVID-19
Part of a One Health Approach

37 NAHLN Laboratories test for SARS-CoV-2

- 12 testing Animal samples only
- 19 testing Animal and Human samples
- 6 testing Human samples only*

* Approx. 2.3M Human sample tests performed
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