



Information received on 06/04/2020 from Dr Mark Davidson, Associate Administrator, USDA-APHIS, United States Department of Agriculture, Washington, United States of America

Summary

Report type	Immediate notification
Date of start of the event	27/03/2020
Date of confirmation of the event	04/04/2020
Report date	06/04/2020
Date submitted to OIE	06/04/2020
Reason for notification	Emerging disease
Morbidity	2 (scale 0 to 5)
Mortality	0 (scale 0 to 5)
Zoonotic impact	Zoonotic potential currently unknown
Causal agent	SARS-CoV-2/COVID-19

New outbreaks (1)

Outbreak 1	Bronx County, Bronx, New York					
Date of start of the outbreak	27/03/2020					
Outbreak status	Continuing (or date resolved not provided)					
Epidemiological unit	Zoo					
Affected animals	Species	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered
	Lion:Panthera leo(Felidae)		3		0	0
	Tiger:Panthera tigris(Felidae)		5	1	0	0
Affected population	Adult lions and tigers in a zoo.					

Summary of outbreaks	Total outbreaks: 1					
Total animals affected	Species	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered
	Lion:Panthera leo(Felidae)		3	**	0	0
	Tiger:Panthera tigris(Felidae)		5	1	0	0
Outbreak statistics	Species	Apparent morbidity rate	Apparent mortality rate	Apparent case fatality rate	Proportion susceptible animals lost*	
	Lion:Panthera leo(Felidae)	**	0.00%	**	0.00%	
	Tiger:Panthera tigris(Felidae)	20.00%	0.00%	0.00%	0.00%	
*Removed from the susceptible population through death, destruction and/or slaughter						
**Not calculated because of missing information						

Epidemiology

Source of the outbreak(s) or origin of infection	Suspected human transmission
Epidemiological comments	Five tigers and three lions were housed in two enclosures at a zoo. The first tiger showed clinical signs of disease on March 27. By April 3, three additional tigers and all lions were showing clinical signs. Clinical signs consisted of a dry cough and some wheezing; one animal had inappetence. None of the animals were in respiratory distress. The lions and tigers were isolated and no other animals at the zoo have shown any signs of respiratory disease. Samples were collected from the first affected tiger and it was confirmed positive for SARS-CoV-2/COVID-19. The other animals with clinical signs are also presumed to be infected. All animals are stable and are recovering. It is assumed that an asymptomatic zoo employee infected the animals.

Control measures

Measures applied	Quarantine Disinfection Vaccination permitted (if a vaccine exists) No treatment of affected animals
Measures to be applied	No other measures

Diagnostic test results

Laboratory name and type	Species Test	Test date	Result
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Cornell University Animal Health Diagnostic Center (Local laboratory)	Tiger	gene sequencing	05/04/2020	Positive
Cornell University Animal Health Diagnostic Center (Local laboratory)	Tiger	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	03/04/2020	Positive
University of Illinois Veterinary Diagnostic Laboratory (Local laboratory)	Tiger	gene sequencing	05/04/2020	Positive
University of Illinois Veterinary Diagnostic Laboratory (Local laboratory)	Tiger	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	03/04/2020	Positive
National Veterinary Services Laboratories (National laboratory)	Tiger	gene sequencing	04/04/2020	Positive
National Veterinary Services Laboratories (National laboratory)	Tiger	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	04/04/2020	Positive

Future Reporting

The event is continuing. Weekly follow-up reports will be submitted.

Map of outbreak locations

