Canada - Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-) - Immediate notification

GENERAL INFORMATION

COUNTRY/TERRITORY OR ZONE	ANIMAL TYPE	DISEASE CATEGORY	EVENT ID
COUNTRY/TERRITORY	TERRESTRIAL	Listed disease	4438

DISEASE	CAUSAL AGENT	GENOTYPE / SEROTYPE / SUBTYPE	START DATE
Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-)	Highly pathogenic avian influenza virus	H5N1	2022/04/12

REASON FOR NOTIFICATION	DATE OF LAST OCCURRENCE	CONFIRMATION DATE	EVENT STATUS
Unusual host species	-	2022/05/02	On-going

END DATE	SELF-DECLARATION
-	NO

REPORT INFORMATION

REPORT NUMBER	REPORT ID	REPORT REFERENCE	REPORT DATE
Immediate notification	IN_155229	CAN-2022-HPAIM-001	2022/05/06

REPORT STATUS	NO EVOLUTION REPORT
Validated	-

EPIDEMIOLOGY

SOURCE OF EVENT OR ORIGIN OF INFECTION

- Contact with wild species
- Unknown or inconclusive

EPIDEMIOLOGICAL COMMENTS

This is the first report of highly pathogenic avian influenza in mammals in Canada. The sequencing results indicates that the HA proteins from both red fox kits belongs to Eurasian Gs/GD lineage HPAI H5N1 with cleavage site motif “PLREKRRKR/GLF” compatible with HPAI viruses. . The virus from both red foxes contains unique constellation of gene segments with PB2, PB1, PA and NP belonging to wild bird origin North American lineage influenza A viruses. The remaining gene segments (HA, NA, M and NS) belong to Eurasian lineage.

QUANTITATIVE DATA SUMMARY

MEASURING UNIT

Animal

Species	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated

red fox (wild)	NEW	-	2	2	-	-	-	
	TOTAL	-	2	2	-	-	-	

DIAGNOSTIC DETAILS

CLINICAL SIGNS
YES

METHOD OF DIAGNOSTIC
Diagnostic test

Test name	Laboratory	Species sampled	Number of outbreaks sampled	First result date	Latest result date	Result
Real-time reverse transcription polymerase chain reaction (rRT-PCR)	National Centre for Foreign Animal Disease (NCFAD), Winnipeg, Manitoba	Red Fox	1	2022/05/02	-	Positive

CONTROL MEASURES

CONTROL MEASURES AT EVENT LEVEL	DOMESTIC ANIMALS	WILD ANIMALS

NEW OUTBREAKS

OB_102584 - ON-2022-HPAIM-001 - SOUTHERN ONTARIO

OUTBREAK REFERENCE
ON-2022-HPAIM-001

START DATE
2022/04/12

END DATE
-

DETAILED CHARACTERISATION
-

FIRST ADMINISTRATIVE DIVISION
Ontario

SECOND ADMINISTRATIVE DIVISION
Perth

THIRD ADMINISTRATIVE DIVISION
St. Marys

EPIDEMIOLOGICAL UNIT
Not applicable

LOCATION
Southern Ontario

Latitude, Longitude
43.27 , -81.14
(Approximate location)

OUTBREAKS IN CLUSTER
-

Measuring unit
Animal

AFFECTED POPULATION DESCRIPTION
Two wild fox kits.

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
red fox (wild)	NEW	-	2	2	-	-	-
wild	TOTAL	-	2	2	-	-	-

METHOD OF DIAGNOSTIC
Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
-	-