

Canada - Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-) - Follow-up report 2

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	-	-	On-going
END DATE	SELF-DECLARATION		
-	NO		

REPORT INFORMATION

REPORT NUMBER	REPORT ID	REPORT REFERENCE	REPORT DATE
Follow-up report 2	FUR_155830	CAN-2022-HPAIM-001 FUR2	2022/06/21
REPORT STATUS	NO EVOLUTION REPORT		
Validated	-		

EPIDEMIOLOGY

SOURCE OF EVENT OR ORIGIN OF INFECTION

- Contact with wild species
- Unknown or inconclusive

EPIDEMIOLOGICAL COMMENTS

We report cases of H5N1 highly pathogenic avian influenza (HPAI) viruses of clade 2.3.4.4b of the A/goose/Guangdong/1996 (Gs/GD) in a mink from Ontario, as well as additional red foxes and skunks from Prince Edward Island, Nova Scotia, Ontario, and British Columbia. The sequencing results indicate cases in the Atlantic region (Prince Edward Island and Nova Scotia) are infected with fully Eurasian lineage influenza A viruses, and all other cases are infected with different reassortment patterns involving wild bird origin North American and Eurasian lineage influenza A viruses.

QUANTITATIVE DATA SUMMARY

MEASURING UNIT

Animal

Species	Susceptible Cases	Deaths	Killed and	Slaughtered/ Killed for	Vaccinated
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					Disposed of	commercial use	
striped skunk (wild)	NEW	-	1	-	1	-	-
	TOTAL	-	5	-	5	-	-
american mink (wild)	NEW	-	1	-	1	-	-
	TOTAL	-	1	-	1	-	-
red fox (wild)	NEW	-	10	4	6	-	-
	TOTAL	-	20	13	7	-	-
all species	NEW	-	12	4	8	-	-
	TOTAL	-	26	13	13	-	-

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, Striped Skunk, American Mink	16	2022/05/02	2022/06/13	Positive

CONTROL MEASURES

CONTROL MEASURES AT EVENT LEVEL

DOMESTIC ANIMALS

WILD ANIMALS

NEW OUTBREAKS

OB_104163 - ON-2022-HPAIM-004 - SOUTHERN ONTARIO (GREY)

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
ON-2022-HPAIM-004	2022/04/14	-	Clade 2.3.4.4b - Lineage: Fully Eurasian
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Ontario	Grey	West Grey	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Southern Ontario (Grey)	44.3 , -80.7 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Neurologic mink

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
american mink (wild)	NEW	-	1	-	1	-	-

TOTAL - 1 - 1 - -

METHOD OF DIAGNOSTIC

Clinical,
Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED ADDITIONAL MEASURES

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OB_104110 - NS-2022-HPAIM-001 - CENTRAL NOVA SCOTIA

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
NS-2022-HPAIM-001	2022/05/09	-	Clade 2.3.4.4b - Lineage: Fully Eurasian
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Nova Scotia	Halifax	Halifax	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Central Nova Scotia	44.8212 , -63.1424 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Found dead red fox kit

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
red fox (wild)	NEW	-	1	1	-	-	-
wild	TOTAL	-	1	1	-	-	-

METHOD OF DIAGNOSTIC

Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED ADDITIONAL MEASURES

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OB_104109 - PE-2022-HPAIM-002 - EASTERN PEI

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
PE-2022-HPAIM-002	2022/05/18	-	Clade 2.3.4.4b - Lineage: Fully Eurasian
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Prince Edward Island	Kings	Lot 54	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Eastern PEI	46.2778 , -62.5474 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Neurologic wild red fox kit

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
red fox (wild)	NEW	-	1	-	1	-	-
wild	TOTAL	-	1	-	1	-	-

METHOD OF DIAGNOSTIC

Clinical,
Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED

ADDITIONAL MEASURES

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OB_104108 - PE-2022-HPAIM-001 - CENTRAL PEI

OUTBREAK REFERENCE

PE-2022-HPAIM-001

START DATE

2022/05/16

END DATE

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DETAILED CHARACTERISATION

Clade 2.3.4.4b - Lineage: Fully
Eurasian

FIRST ADMINISTRATIVE DIVISION

Prince Edward Island

**SECOND ADMINISTRATIVE
DIVISION**

Queens

**THIRD ADMINISTRATIVE
DIVISION**

Miltonvale Park

EPIDEMIOLOGICAL UNIT

Not applicable

LOCATION

Central PEI

Latitude, Longitude

46.2867 , -63.212
(Approximate location)

OUTBREAKS IN CLUSTER

-

Measuring unit

Animal

AFFECTED POPULATION DESCRIPTION

Neurologic wild red 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

Clinical,
Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED

ADDITIONAL MEASURES

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OB_104179 - ON-2022-HPAIM-006 - SOUTHERN ONTARIO (WELLINGTON)

OUTBREAK REFERENCE

ON-2022-HPAIM-006

START DATE

2022/05/10

END DATE

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DETAILED CHARACTERISATION

Clade: 2.3.4.4b - Lineage:
Reassortment Eurasian and North
American

FIRST ADMINISTRATIVE DIVISION

Ontario

**SECOND ADMINISTRATIVE
DIVISION**

Wellington

**THIRD ADMINISTRATIVE
DIVISION**

Guelph/Eramosa

EPIDEMIOLOGICAL UNIT

Not applicable

LOCATION

Southern Ontario (Wellington)

Latitude, Longitude

43.66 , -80.16
(Approximate location)

OUTBREAKS IN CLUSTER

-

Measuring unit

Animal

AFFECTED POPULATION DESCRIPTION

Cluster: Gene segments PB2, PB1, PA and NP belonging to North American lineage and gene segments HA, NA, M and NS belonging to Eurasian lineage

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
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red fox (wild)	NEW	-	1	-	1	-	-
wild	TOTAL	-	1	-	1	-	-

METHOD OF DIAGNOSTIC

Diagnostic test,
Clinical

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_104164 - ON-2022-HPAIM-005 - SOUTHERN ONTARIO (WATERLOO)

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
ON-2022-HPAIM-005	2022/04/25	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Ontario	Waterloo	Woolwich	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Southern Ontario (Waterloo)	43.5 , -80.4 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

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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
-	-

OB_104162 - ON-2022-HPAIM-003 - CENTRAL ONTARIO (SIMCOE)

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
ON-2022-HPAIM-003	2022/04/27	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Ontario	Simcoe	Ramara	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Central Ontario (Simcoe)	44.52 , -79.25 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Neurologic red fox kits.

Species (latin	Wildlife	Susceptible	Cases	Deaths	Killed and	Slaughtered/ Killed for	Vaccinated
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name)	type				Disposed of	commercial use	
red fox (wild)	NEW	-	2	1	1	-	-
wild	TOTAL	-	2	1	1	-	-

METHOD OF DIAGNOSTIC

Clinical,
Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_104161 - BC-2022-HPAIM-002 - NORTH OKANAGAN REGIONAL DISTRICT

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
BC-2022-HPAIM-002	2022/05/18	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
British Columbia	North Okanagan	North Okanagan B	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
North Okanagan Regional District	50.2 , -119.28 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

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Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
striped skunk	NEW	-	1	-	1	-	-
(wild) wild	TOTAL	-	1	-	1	-	-

METHOD OF DIAGNOSTIC

Diagnostic test,
Clinical

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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UPDATED OUTBREAKS

OB_103543 - AB-2022-HPAIM-001 - MINBURN COUNTY

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
AB-2022-HPAIM-001	2022/04/22	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Alberta	Division No. 10	Minburn County No. 27	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit

Minburn County

53.49 , -112.16
(Approximate location)

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Animal

AFFECTED POPULATION DESCRIPTION

Neurologic wild skunks.

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

METHOD OF DIAGNOSTIC

Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_103542 - MB-2022-HPAIM-003 - PRAIRIE MOUNTAIN HEALTH REGION

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
MB-2022-HPAIM-003	2022/05/11	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Manitoba	Division No. 17	Dauphin	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Prairie Mountain Health Region	51.35 , -100.15 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Neurologic adult wild skunk

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
striped skunk	NEW	-	-	-	-	-	-
(wild) wild	TOTAL	-	1	-	1	-	-

METHOD OF DIAGNOSTIC

Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_103541 - BC-2022-HPAIM-001 - FRASER-FORT GEORGE REGIONAL DISTRICT

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
BC-2022-HPAIM-001	2022/05/08	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
British Columbia	Fraser-Fort George	Prince George	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit

Fraser-Fort George Regional District	53.9 , -122.77 (Approximate location)	-	Animal
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AFFECTED POPULATION DESCRIPTION

Neurologic wild red fox kit.

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
red fox (wild)	NEW	-	1	-	1	-	-
wild	TOTAL	-	2	1	1	-	-

METHOD OF DIAGNOSTIC

Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_103540 - MB-2022-HPAIM-002 - SOUTHERN HEALTH REGION

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
MB-2022-HPAIM-002	2022/05/08	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Manitoba	Division No. 3	Morris Town	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Southern Health Region	49.36 , -97.36 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Neurologic wild red fox kits.

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
red fox (wild)	NEW	-	-	-	-	-	-
wild	TOTAL	-	4	3	1	-	-

METHOD OF DIAGNOSTIC

Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_103539 - ON-2022-HPAIM-002 - SOUTHERN ONTARIO (YORK)

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
ON-2022-HPAIM-002	2022/04/15	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Ontario	York	Vaughan	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit

Southern Ontario (York)	43.86 , -79.5 (Approximate location)	-	Animal
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AFFECTED POPULATION DESCRIPTION

Neurologic wild red fox kit.

Species (latin name)	Wildlife type	Susceptible	Cases	Deaths	Killed and Disposed of	Slaughtered/ Killed for commercial use	Vaccinated
red fox (wild)	NEW	-	-	-	-	-	-
wild	TOTAL	-	1	1	-	-	-

METHOD OF DIAGNOSTIC

Diagnostic test

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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OB_103112 - MB-2022-HPAIM-001 - PRAIRIE MOUNTAIN HEALTH AUTHORITY

OUTBREAK REFERENCE	START DATE	END DATE	DETAILED CHARACTERISATION
MB-2022-HPAIM-001	2022/04/28	-	Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American
FIRST ADMINISTRATIVE DIVISION	SECOND ADMINISTRATIVE DIVISION	THIRD ADMINISTRATIVE DIVISION	EPIDEMIOLOGICAL UNIT
Manitoba	Division No. 15	Neepawa	Not applicable
LOCATION	Latitude, Longitude	OUTBREAKS IN CLUSTER	Measuring unit
Prairie Mountain Health Authority	50.24 , -99.46 (Approximate location)	-	Animal

AFFECTED POPULATION DESCRIPTION

Neurologic wild red fox kits

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

METHOD OF DIAGNOSTIC

Diagnostic test,
Clinical

CONTROL MEASURES DIFFERENT FROM EVENT LEVEL

MEASURES NOT IMPLEMENTED	ADDITIONAL MEASURES
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