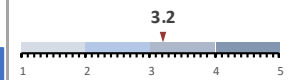


SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥3.0)

Influenza A (H5)

- ◆ **Ecuador** has reported a human infection caused by influenza A(H5) in a 9-year-old female living in a rural area in the province of **Bolívar**, who was in contact with backyard birds; the patient is currently hospitalized in a pediatric intensive care unit, in isolation, and with antiviral and supportive treatment

[Read More](#)



White-nose Syndrome

- ◆ White-nose syndrome has made its first appearance in **Alberta**; researchers collected bat droppings from underneath 800 bridges, two samples from along the southern stretch of the **Red Deer River** came back positive for the fungus

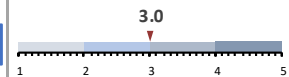
[Read More](#)



Highly Pathogenic Avian Influenza

- ◆ Over the last week, **Canada** has reported outbreaks of HPAI H5N1 in commercial poultry in: **British Columbia**(3); and in non-commercial non-poultry in: **New Brunswick**(1)

[Read More](#)



NEW EVENTS: (events rated > 2)



Influenza A (H5) in Ecuador

Pathogen: Virus; **Transmission:** Direct contact, aerosol, fomite; **Species affected in event:** Human

① On January 10, 2023, Ecuador reported a human infection caused by influenza A(H5) in a 9-year-old female living in a rural area of the province of Bolívar, who was in contact with backyard birds. The patient is currently hospitalized in a pediatric intensive care unit, in isolation, and with antiviral and supportive treatment. To date, no additional cases have been identified (~25 close contacts were tested) and no evidence of human-to-human transmission has been identified.

[Read More](#)

Avg. Rating	2.8 - 3.2
No. of Signal	4
No. of Ratings	4 - 6

White-nose syndrome in Alberta

Pathogen: Fungus; **Transmission:** Direct contact, fomite; **Species affected in event:** Bat

① White-nose syndrome has made its first appearance in Alberta. Society researchers traced the infections by collecting bat droppings from underneath 800 bridges. Two samples from along the southern stretch of the Red Deer River came back positive for the fungus. Other samples that showed likely infection came from along the Milk River in southern Alberta and as far north as the Battle River near Cold Lake.

[Read More](#)

Avg. Rating	3.0
No. of Signal	2
No. of Ratings	4

Seneca Valley Virus in England

Pathogen: Virus; **Transmission:** Direct contact, fomite, unknown; **Species affected in event:** Swine

① DEFRA has confirmed that the five cases of vesicular disease in pigs identified on farms in England last year, initially suspected of being FMD, were Seneca Valley Virus (SVV). Cases of the disease were discovered in Norfolk between June and September 2022. Full genome sequencing used to characterize the SVVs in these herds shows that they form two distinct clusters, sharing a common ancestor with an SVV strain from the United States identified as SVV/USA/TN/NADC6/2020 (Genbank: MZ733975). SVV has not been detected by RT-PCR in feed and soya bean meal samples available from feed batches fed to sows prior to clinical signs developing. Boars supplying semen to affected herds have also been tested for SVV infection with negative results and affected herds had not imported pigs. The timing and means by which SVV was introduced into the UK has not yet been determined and investigations continue.

[Read More](#)

Avg. Rating	2.6
No. of Signal	1
No. of Ratings	5

NEW EVENTS CONTINUED: (events rated > 2)

★ Suspected Highly Pathogenic Avian Influenza in the Cayman Islands

Pathogen: Virus; **Transmission:** Direct contact, aerosol, fomite; **Species affected in event:** Poultry

① On January 9, 2023, five possible positive HPAI cases were detected in Grand Cayman. The cases were identified as a result of routine AI surveillance activities testing all domestic poultry that have died of possible respiratory illnesses. Further samples have been collected in accordance with standard international guidelines for suspect cases of AI and are being sent to an international reference laboratory in the USA for PCR testing. [Read More](#)

Avg. Rating	2.6
No. of Signal	1
No. of Ratings	5

CONTINUED EVENTS: (events rated ≥ 2.4)

Highly Pathogenic Avian Influenza in North America **No. of Signals: 04** **No. of weeks in report: 52** **Avg. Rating: 2.7 – 2.9**

- Over the last week, [Canada](#) has reported outbreaks of HPAI H5N1 in commercial poultry in: British Columbia(3); and in non-commercial non-poultry in: New Brunswick(1)
- Over the last week, the [USDA](#) has reported outbreaks of HPAI H5N1 in WOAHP poultry in: California; and in WOAHP non-poultry in: Montana, California, and Nebraska
- In [Nebraska](#), HPAI has been identified as the cause of death of four animals (a cougar, a bear, and two tigers) at the Riverside Discovery Center in Scottsbluff; the release indicates the animals ate local geese with HPAI in their systems
- A summary of HPAI detections in mammals (110 in the past year) in the USA is available [here](#)

Influenza A (H9N2) in China **No. of Signals: 01** **No. of weeks in report: 40** **Avg. Rating: 2.8**

- [China](#) has reported another three human cases of influenza A(H9N2), all from 2022; one in a 58-year-old man in Hunan Province with onset on October 19, 2022; the second in a 5-year-old girl in Gansu Province with onset on October 23, 2022; the third in a 3-year-old boy in Anhui Province with onset on November 13, 2022

Echinococcus multilocularis in Canada **No. of Signals: 01** **No. of weeks in report: 02** **Avg. Rating: 2.8**

- Echinococcus multilocularis has been detected for the second time in an Eastern Chipmunk in [Ontario](#); the chipmunk was found in Port Perry in October 2022

Highly Pathogenic Avian Influenza in Europe **No. of Signals: 04** **No. of weeks in report: 108** **Avg. Rating: 2.0 - 2.3**

- [Denmark](#) has reported HPAI H5N1 in samples from four wild Danish foxes (three fox puppies around 4-5 weeks old and an adult male fox) found January-April 2022
- [France](#) has reported an outbreak of HPAI in a non-commercial poultry farm in Landéan
- [Italy](#) has reported HPAI H5N1 in wild birds
- A summary of the overall HPAI situation in Europe is available [here](#)

Highly Pathogenic Avian Influenza in Asia **No. of Signals: 02** **No. of weeks in report: 85** **Avg. Rating: 2.0**

- [India](#) has reported HPAI H5N1 in a state-run poultry farm in Kerala

Highly Pathogenic Avian Influenza in Africa **No. of Signals: 02** **No. of weeks in report: 40** **Avg. Rating: 2.0**

- [South Africa](#) and [Nigeria](#) have reported HPAI in domestic poultry

Highly Pathogenic Avian Influenza in South America **No. of Signals: 02** **No. of weeks in report: 09** **Avg. Rating: 2.0**

- [Ecuador](#) has reported new cases of HPAI in Cotopaxi (farm) and Bolivar (backyard premise)
- [Chile](#) has confirmed the presence of HPAI H5N1 in additional pelicans, one in the urban area of Pichilemu, O'Higgins region, and the other at the mouth of the Mataquito River, in the La Pesca sector

SCIENTIFIC FINDINGS & REPORTS:

African Swine Fever

- ◆ Literature review and qualitative risk assessment on the role of feed materials in African Swine Fever Virus transmission [Read More](#)
- ◆ Artificial Insemination as an Alternative Transmission Route for African Swine Fever Virus [Read More](#)

Coronavirus

- ◆ Evaluating the transmission feasibility of SARS-CoV-2 Omicron (B.1.1.529) variant to 143 mammalian hosts: insights from S protein RBD and host ACE2 interaction studies [Read More](#)
- ◆ SARS-CoV-2 Transmission from Virus-Infected Dead Hamsters [Read More](#)

Influenza

- ◆ PAHO - Epidemiological Update Outbreaks of avian influenza and public health implications in the Region of the Americas - 11 January 2023 [Read More](#)
- ◆ Bald eagle mortality and nest failure due to clade 2.3.4.4 highly pathogenic H5N1 influenza a virus [Read More](#)

Mpox

- ◆ Familial Mpox Virus Infection Involving 2 Young Children [Read More](#)
- ◆ Pre-print: Different Coexisting Mpox Lineages Were Continuously Circulating in Humans Prior to 2022 [Read More](#)

Vectors and Vector-borne Diseases

- ◆ Widespread Exposure to Mosquitoborne California Serogroup Viruses in Caribou, Arctic Fox, Red Fox, and Polar Bears, Canada [Read More](#)
- ◆ *Haemaphysalis longicornis* (Asian longhorned tick) [Read More](#)

Other

- ◆ EFSA - Recommendations and technical specifications for sustainable surveillance of zoonotic pathogens where wildlife is implicated [Read More](#)
- ◆ Nipah Virus Exposure in Domestic and Peridomestic Animals Living in Human Outbreak Sites, Bangladesh, 2013–2015 [Read More](#)
- ◆ Detection of *Dirofilaria immitis* in a dog imported to Chile [Read More](#)
- ◆ Langya henipavirus: Is it a potential cause for public health concern? [Read More](#)

Disclaimer

This intelligence report is intended to provide information to risk managers about emerging and zoonotic disease events that could pose a threat to Canada. It is based on information signals acquired and selected from twenty-one distinct disease surveillance sources via the Knowledge Integration using Web-based Intelligence (KIWI) tool hosted on the Canadian Network for Public Health Intelligence (CNPHI) informatics platform. The report is based on the activities of the CEZD Community of Practice and subject to change based on evolving user needs.