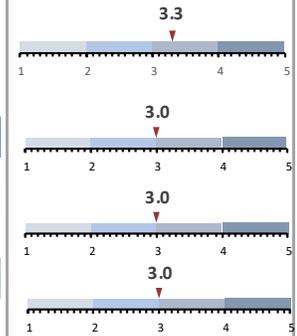


SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥3.0)

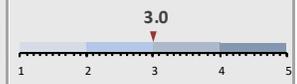
Highly Pathogenic Avian Influenza

- ◆ Research Article: Characterization of neurotropic HPAI H5N1 viruses with novel genome constellations and mammalian adaptive mutations in free-living mesocarnivores (foxes, skunks, mink) in **Canada** [Read More](#)
- ◆ **Chile** has reported HPAI H5N1 in a dead sea otter in **Arica** [Read More](#)
- ◆ CFIA HPAI reporting shows that about half a million birds in **Saskatchewan** have been infected as of March 1st 2023, with the total reported cases for Canada sitting at 7.2 million [Read More](#)
- ◆ In **British Columbia**, testing has confirmed that eight skunks found dead in late February in **Richmond** and **Vancouver** are positive for HPAI H5N1; the skunks may have contracted influenza by scavenging infected wild birds [Read More](#)

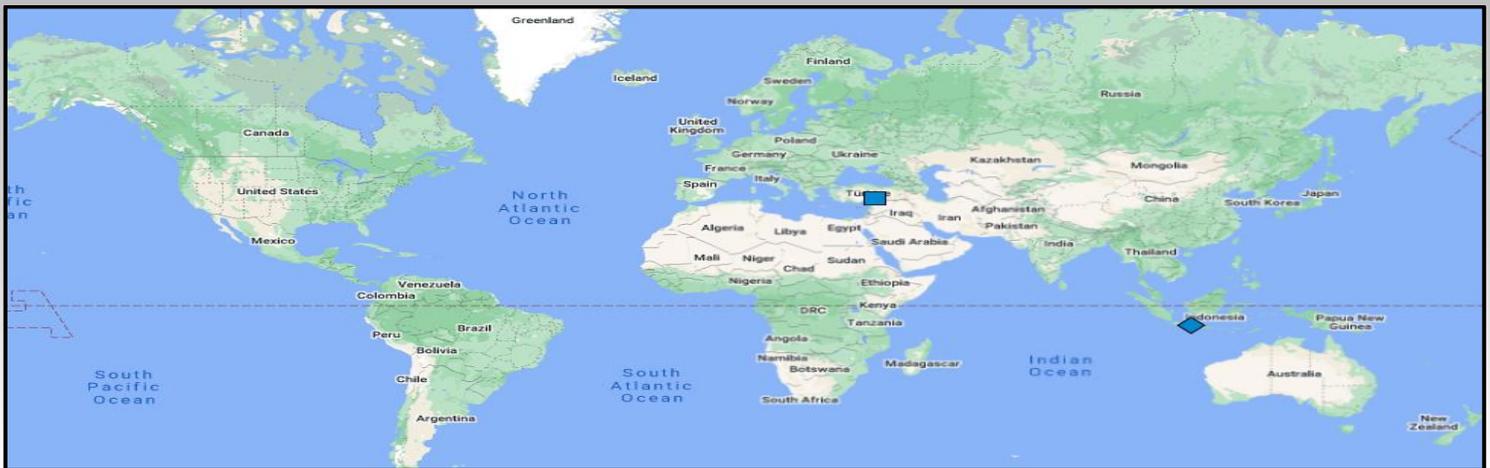


Chronic Wasting Disease

- ◆ CWD has been reported in a white-tailed deer in **Manitoba** for the first time; CWD was previously reported in mule deer in the province [Read More](#)



NEW EVENTS: (events rated > 2)



Foot and Mouth Disease serotype SAT-2 in Turkey

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

① FMD serotype SAT-2 has been reported in Turkey for the first time. All measures, including quarantine, have been taken in eight enterprises that are currently infected. Vaccination efforts are underway against the SAT-2 serotype using a vaccine made ready for use as of 9 Mar 2023. [Read More](#)

Avg. Rating	2.5
No. of Signal	1
No. of Ratings	4

Poultry deaths in East Java, Indonesia

Pathogen: Unknown; **Transmission:** Unknown; **Species affected in event:** Chicken

① Dozens of native chickens belonging to residents of Karang Hamlet, Gading Village, Tanon District have died suddenly. The incident lasted about a week and was evenly felt by residents who raised native chickens (usually in one cage 10-20 chickens would die). The cause of the deaths is currently unknown and there are worries it may be avian influenza. The government has deployed a team to investigate the situation and record the mortalities [Read More](#)

Avg. Rating	2.2
No. of Signal	1
No. of Ratings	6

CONTINUED EVENTS: (events rated ≥ 2.4)

Chronic Wasting Disease in Canada

No. of Signals: 01

No. of weeks in report: 07

Avg. Rating: 3.0

- CWD has been reported in a white-tailed deer in [Manitoba](#) for the first time; since CWD was first detected, there have been 20 positive cases found in Manitoba: 18 mule deer and 2 white-tailed deer

Highly Pathogenic Avian Influenza in North America

No. of Signals: 08

No. of weeks in report: 60

Avg. Rating: 2.0 - 3.0

- Over the last week, [Canada](#) reported an outbreak of HPAI in non-commercial poultry in Ontario
- In [British Columbia](#), testing has confirmed that eight skunks found dead in late February in Richmond and Vancouver are positive for HPAI H5N1; the skunks may have contracted influenza by scavenging infected wild birds
- CFIA HPAI reporting shows that about half a million birds in [Saskatchewan](#) have been infected as of March 1st 2023, with the total reported cases for Canada sitting at 7.2 million
- Over the last week, the [USDA](#) has reported outbreaks of HPAI H5N1 in WOAHP poultry in: Pennsylvania; and in WOAHP non-poultry in: Idaho and Virginia
- The [USDA](#) has also added additional reports of HPAI H5N1 detections in mammals to its list, with 144 total entries to date

Highly Pathogenic Avian Influenza in South America

No. of Signals: 08

No. of weeks in report: 17

Avg. Rating: 2.0 - 3.0

- [Chile](#) has reported HPAI H5N1 in a dead sea otter in Arica, found stranded dead in the vicinity of the Lluta River wetland near Las Machas beach along with other birds
- [Argentina](#) has reported HPAI H5N1 in domestic poultry in Neuquen
- [Uruguay](#) has reported HPAI H5 in backyard birds of different species (hens, guinea fowl, and ducks) in Tacuarembó

Foot and Mouth Disease in Indonesia

No. of Signals: 01

No. of weeks in report: 07

Avg. Rating: 2.7

- [Indonesia](#) has reported cases of FMD in the Cirebon District as supplies of ruminants arrived from outside the district before the Islamic holidays; the cases were spread across 80 villages in 32 sub-districts and there are still 41 ruminants affected by FMD, spread across 9 villages in a number of sub-districts

Highly Pathogenic Avian Influenza in Europe

No. of Signals: 12

No. of weeks in report: 116

Avg. Rating: 1.7 - 2.4

- [France](#) has reported HPAI H5N1 among three red foxes found dead in a nature reserve, near where gulls had died, northeast of Paris
- [France](#) has also reported HPAI in a poultry farm in Mézidon-Vallée-d'Auge
- [Italy](#) and [Hungary](#) have reported HPAI H5N1 in domestic poultry
- [Switzerland](#) and the [UK](#) have reported HPAI H5N1 in wild birds
- The barnacle goose that tested positive for HPAI H5N5 in [Sweden](#) was a sample from 2021 not 2023
- A summary of the overall HPAI situation in Europe is available [here](#)

Nipah virus in Bangladesh

No. of Signals: 02

No. of weeks in report: 06

Avg. Rating: 2.0 - 2.3

- [Bangladesh](#) has reported three additional Nipah virus cases, including two additional deaths, bringing the total number of cases to 14; the outbreak is related to the consumption of date palm sap

Highly Pathogenic Avian Influenza in Asia

No. of Signals: 04

No. of weeks in report: 93

Avg. Rating: 2.0 - 2.3

- [Cambodia](#) has reported HPAI H5N1 in wildlife (species unspecified)

SCIENTIFIC FINDINGS & REPORTS:

Coronavirus

- ◆ SARS-CoV-2 Exposure in Norway Rats (*Rattus norvegicus*) from New York City [Read More](#)
- ◆ Experimental Infection and Transmission of SARS-CoV-2 Delta and Omicron Variants among Beagle Dogs [Read More](#)
- ◆ Exposure to diverse sarbecoviruses indicates frequent zoonotic spillover in human communities interacting with wildlife [Read More](#)

Influenza

- ◆ Characterization of neurotropic HPAI H5N1 viruses with novel genome constellations and mammalian adaptive mutations in free-living mesocarnivores in Canada [Read More](#)
- ◆ Cross-species infection potential of avian influenza H13 viruses isolated from wild aquatic birds to poultry and mammals [Read More](#)
- ◆ Research Letter: First case of human infection with highly pathogenic H5 avian influenza a virus in South America: a new zoonotic pandemic threat for 2023? [Read More](#)
- ◆ Highly pathogenic avian influenza A (H5N1) virus infections in wild carnivores connected to mass mortalities of pheasants in Finland [Read More](#)

Vectors and Vector Borne Diseases

- ◆ Relapsing Fever Caused by *Borrelia lonestari* after Tick Bite in Alabama, USA [Read More](#)
- ◆ West Nile Virus and Epizootic Hemorrhagic Disease Virus Co-infection in a Novel Host at the Nashville Zoo [Read More](#)

Other

- ◆ 'Plasticosis': Characterising macro- and microplastic-associated fibrosis in seabird tissues [Read More](#)
- ◆ Discovery and comparative genomic analysis of a novel equine anellovirus, representing the first complete Mutorquevirus genome [Read More](#)
- ◆ It's a small world for parasites: evidence supporting the North American invasion of European *Echinococcus multilocularis* [Read More](#)
- ◆ Molecular Epidemiology of Bovine Enteroviruses and Genome Characterization of Two Novel Bovine Enterovirus Strains in Guangxi, China [Read More](#)
- ◆ Prioritization of zoonotic diseases for coordinated surveillance systems under the One Health approach for cross-border pathogens that threaten the Union [Read More](#)
- ◆ SHIC - March Global Swine Disease Monitoring Report [Read More](#)
- ◆ SHIC - March Domestic Swine Disease Monitoring Report [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.