

## CORRECTION:

### Highly Pathogenic Avian Influenza

- ◆ The cases of HPAI in wild birds in **British Columbia, Saskatchewan, and Ontario** reported last week were not recent detections and were from samples collected between October 2023 and March 2024

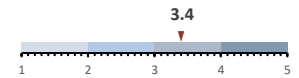
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## SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥ 3.0)

### Influenza A (H5N1)

- ◆ The CDC has confirmed the NA sequence in the recent human case of influenza H5 virus in **Missouri** is N1, and the clade is 2.3.4.4b; two close contacts (one household and one health care worker) developed similar symptoms, however the household contact recovered and was never tested, while the health care worker tested negative for influenza

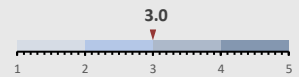
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### Highly Pathogenic Avian Influenza

- ◆ As of September 15, 2024, the USDA has reported influenza A H5N1 in a total of 208 dairy herds across 14 states: **Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), Minnesota(9), New Mexico(9), California(10), Iowa(13), Texas(26), Michigan(29), Idaho(32), and Colorado(64)**

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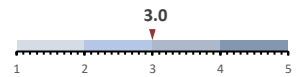


- ◆ Recent cases have been reported from **California, Texas, Michigan, and Idaho**

### Eastern Equine Encephalitis

- ◆ **Ottawa** has reported a human case of EEE in a resident who died of a viral encephalitis in August; this is the first human case of EEE for 2024

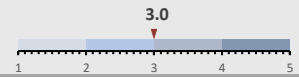
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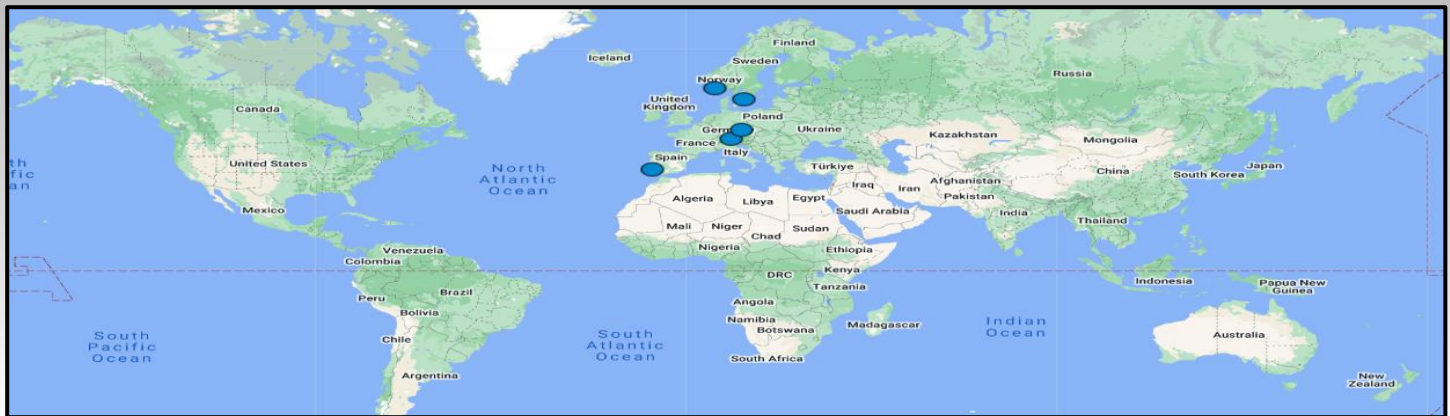
### West Nile Virus

- ◆ The first human case of WNV for this year has been confirmed in **Muskoka, Ontario**

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## NEW EVENTS: (events rated > 2)



### Bluetongue virus serotype 3 in Norway, Czech Republic, Sweden, Austria, and Portugal

**Pathogen:** virus; **Transmission:** vector – culicoides; **Species affected in event:** sheep, goats, cattle

- ① Norway has confirmed a reoccurrence of BTV-3 after ~14 years (last occurrence in 2010). A total of ten outbreaks have now been reported, all in southern Norway. [Read More](#)

The Czech Republic has confirmed a reoccurrence of BTV-3 after ~15 years (last occurrence in 2009). Three outbreaks have been reported in sheep and goats in the west of the country, close to the border with Germany. [Read More](#)

Sweden has confirmed a reoccurrence of BTV-3 after ~15 years (last occurrence in 2009). Two cases have been reported in cattle in the south of the country. [Read More](#)

Austria has confirmed its first case of BTV-3 in cattle in Bergenz (close to its borders with Germany and Switzerland). [Read More](#)

Portugal has confirmed its first cases of BTV-3 in sheep in Evora (south-east Portugal). [Read More](#)

Avg. Rating	2.0 - 2.6
No. of Signal	7
No. of Ratings	3 - 6

## CONTINUED EVENTS: (events rated ≥ 2.4)

<b><u>Influenza A (H5N1) in the USA</u></b> <ul style="list-style-type: none"> <li>The CDC has confirmed the NA sequence in the recent human case of influenza H5 virus in <a href="#">Missouri</a> is N1, and that the clade is 2.3.4.4b; two close contacts (one household and one health care worker) developed similar symptoms, however the household contact recovered and was never tested, while the health care worker tested negative for influenza</li> </ul>	<b><u>No. of Signals: 05</u></b>	<b><u>No. of weeks in report: 21</u></b>	<b><u>Avg. Rating: 2.3 - 3.4</u></b>
<b><u>Highly Pathogenic Avian Influenza in North America</u></b> <ul style="list-style-type: none"> <li><a href="#">Canada</a> has not reported any outbreaks of HPAI in domestic poultry over the last week</li> <li>The <a href="#">USDA</a> has not reported any outbreaks of HPAI in domestic poultry over the last week</li> <li>As of September 16, 2024, the <a href="#">USDA</a> has reported influenza A H5N1 in a total of 208 dairy herds across 14 states: Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), <a href="#">Minnesota</a>(9), New Mexico(9), California(10), Iowa(13), Texas(26), <a href="#">Michigan</a>(29), Idaho(32), and <a href="#">Colorado</a>(64); the recent cases have been reported from California, Texas, Michigan, and Idaho</li> <li>Wastewater surveillance dashboards for influenza can be found at the <a href="#">CDC</a> and Stanford University's <a href="#">WastewaterSCAN</a></li> </ul>	<b><u>No. of Signals: 04</u></b>	<b><u>No. of weeks in report: 133</u></b>	<b><u>Avg. Rating: 2.0 - 3.0</u></b>
<b><u>West Nile Virus in Canada</u></b> <ul style="list-style-type: none"> <li>In <a href="#">Ontario</a>, the first human case of WNV for the year has been confirmed in Muskoka</li> <li>In <a href="#">Ontario</a>, the Timiskaming Health Unit has received reports that WNV has been identified in deceased birds in its district</li> <li>In <a href="#">Quebec</a>, an unvaccinated, 11-year-old horse in MRC-Maria-Chapdelaine tested positive for WNV</li> </ul>	<b><u>No. of Signals: 03</u></b>	<b><u>No. of weeks in report: 13</u></b>	<b><u>Avg. Rating: 2.0 - 3.0</u></b>
<b><u>Eastern Equine Encephalitis in Canada</u></b> <ul style="list-style-type: none"> <li><a href="#">Ottawa</a> has reported a human case of EEE in a resident who died of viral encephalitis in August; this is the first human case of EEE for 2024</li> <li>In <a href="#">Ontario</a>, an unvaccinated, 4-year-old gelding in Niagara recently tested positive for EEE</li> <li>In <a href="#">Quebec</a>, an unvaccinated, 5-year-old Miniature Horse mare in Montérégie tested positive for EEE</li> </ul>	<b><u>No. of Signals: 04</u></b>	<b><u>No. of weeks in report: 08</u></b>	<b><u>Avg. Rating: 2.0 - 3.0</u></b>
<b><u>Bluetongue Virus in Europe</u></b> <ul style="list-style-type: none"> <li>The <a href="#">UK</a> has reported additional outbreaks of BTV-3; as of September 16, 2024 there are a total of 63 affected premises, with control zones in Norfolk, Suffolk, Essex, and Kent, as well as a temporary control zones in Yorkshire and Lincolnshire</li> <li><a href="#">Denmark</a> has reported cases of BTV-3 in the east of the country in Copenhagen</li> <li><a href="#">Switzerland</a> has reported a total of 109 outbreaks of BTV-3, all in the north of the country (close to its borders with France and Germany)</li> <li><a href="#">France</a> has reported cases of BTV-8 in Savoie</li> </ul>	<b><u>No. of Signals: 05</u></b>	<b><u>No. of weeks in report: 13</u></b>	<b><u>Avg. Rating: 2.0 - 2.8</u></b>
<b><u>New World Screwworm in Central America</u></b> <ul style="list-style-type: none"> <li>As of September 7, 2024, <a href="#">Panama</a> has reported 16,720 cases of New World Screwworm, <a href="#">Costa Rica</a> has reported 6,183 cases, and <a href="#">Nicaragua</a> has reported 2,683 cases</li> <li><a href="#">Nicaragua</a> has reported it first human infections (at least two) with the screwworm</li> <li><a href="#">Panama</a> has reported 69 cases of screwworm infection in humans so far in 2024 (age range of 1 year to 95 years)</li> </ul>	<b><u>No. of Signals: 02</u></b>	<b><u>No. of weeks in report: 13</u></b>	<b><u>Avg. Rating: 2.3 - 2.7</u></b>
<b><u>Avian Metapneumovirus in the USA</u></b> <ul style="list-style-type: none"> <li>AMPV is estimated to be present in 60-80% of <a href="#">U.S.</a> turkey flocks, with &gt;1,500 detections since February 2024; the virus has been seen in every poultry producing state in the U.S. and is the likely cause of low U.S. inventories of turkey eggs in incubators</li> </ul>	<b><u>No. of Signals: 01</u></b>	<b><u>No. of weeks in report: 02</u></b>	<b><u>Avg. Rating: 2.4</u></b>
<b><u>Highly Pathogenic Avian Influenza in Europe</u></b> <ul style="list-style-type: none"> <li><a href="#">Denmark</a> and <a href="#">Germany</a> have reported outbreaks of HPAI H5N1 in domestic poultry</li> <li><a href="#">Spain</a>, <a href="#">France</a>, and <a href="#">Germany</a> have reported cases of HPAI H5N1 in wild birds</li> <li>A summary of the overall HPAI situation in Europe is available <a href="#">here</a></li> </ul>	<b><u>No. of Signals: 07</u></b>	<b><u>No. of weeks in report: 190</u></b>	<b><u>Avg. Rating: 2.0 - 2.2</u></b>
<b><u>Highly Pathogenic Avian Influenza in Asia</u></b> <ul style="list-style-type: none"> <li><a href="#">India</a> has reported additional outbreaks of HPAI in domestic poultry in Kendrapara district</li> <li><a href="#">Bhutan</a> has reported an outbreak of HPAI H5N1 in domestic poultry in Chhukha</li> </ul>	<b><u>No. of Signals: 04</u></b>	<b><u>No. of weeks in report: 154</u></b>	<b><u>Avg. Rating: 2.0 - 2.2</u></b>
<b><u>Highly Pathogenic Avian Influenza in South America</u></b> <ul style="list-style-type: none"> <li><a href="#">Peru</a> has reported HPAI H5 in domestic poultry in Ancash</li> </ul>	<b><u>No. of Signals: 01</u></b>	<b><u>No. of weeks in report: 74</u></b>	<b><u>Avg. Rating: 2.0</u></b>
<b><u>Highly Pathogenic Avian Influenza in Africa</u></b> <ul style="list-style-type: none"> <li><a href="#">Nigeria</a> has reported an outbreak of HPAI H5N1 in domestic poultry in Delta</li> </ul>	<b><u>No. of Signals: 01</u></b>	<b><u>No. of weeks in report: 72</u></b>	<b><u>Avg. Rating: 2.0</u></b>

## SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

### Influenza

- ◆ Pre-print: Targets of influenza Human T cell response are mostly conserved in H5N1 [Read More](#)
- ◆ Sequencing-Based Detection of Avian Influenza A(H5N1) Virus in Wastewater in Ten Cities [Read More](#)
- ◆ CDC - Interim Guidance on Influenza Antiviral Post-exposure Prophylaxis of Persons Exposed to Birds or Other Animals with Novel Influenza A Viruses Associated with Severe Human Disease or with the Potential to Cause Severe Human Disease [Read More](#)
- ◆ Vaccine-induced NA immunity decreases viral shedding, but does not disrupt chains of airborne transmission for the 2009 pandemic H1N1 virus in ferrets [Read More](#)
- ◆ Evolution and biological characteristics of H11 avian influenza viruses isolated from migratory birds and pigeons [Read More](#)

### Mpox

- ◆ Presumed Transmission of 2 Distinct Monkeypox Virus Variants from Central African Republic to Democratic Republic of the Congo [Read More](#)
- ◆ Epidemiologic Quantities for Monkeypox Virus Clade I from Historical Data with Implications for Current Outbreaks, Democratic Republic of the Congo [Read More](#)
- ◆ Community-based mpox and sexually transmitted disease surveillance using discarded condoms in the global south [Read More](#)
- ◆ ECDC - Epidemiological update – Week 37/2024: Mpox due to monkeypox virus clade I [Read More](#)
- ◆ WHO – Mpox- Multi-country External Situation Report n. 36, published 14 September 2024 [Read More](#)

### Vectors and Vector borne Diseases

- ◆ Role of vector phenotypic plasticity in disease transmission as illustrated by the spread of dengue virus by *Aedes albopictus* [Read More](#)
- ◆ Powassan virus encephalitis in a 9-year-old [Read More](#)

### Other

- ◆ Congenital Suipoxvirus Infection in Newborn Piglets in an Austrian Piglet-Producing Farm [Read More](#)
- ◆ Rabbit Hemorrhagic Disease Virus in Mexico in 2020–2021: Risk Areas and Climatic Distribution [Read More](#)
- ◆ Domestic dogs as reservoirs for African trypanosomiasis in Mambwe district, eastern Zambia [Read More](#)
- ◆ The discovery of novel variants reveals the genetic diversity and potential origin of Seoul orthohantavirus [Read More](#)
- ◆ France - Weekly Bulletin for International Animal Health Surveillance 17/09/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 7 - 13 September 2024, week 37 [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.