

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

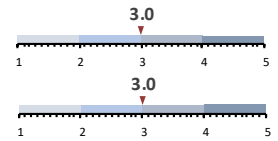
### Highly Pathogenic Avian Influenza

Over the last week, **Canada** has reported outbreaks of HPAI H5N1 in commercial poultry in: **British Columbia**(7), **Alberta**(1), **Saskatchewan**(1), and **Ontario**(1); and in non-commercial non-poultry in: **British Columbia**(1) and **Manitoba**(1)

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**Peru** has reported HPAI H5 in peruvian pelicans in the province of **Paita**

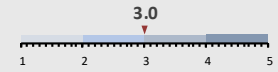
[Read More](#)



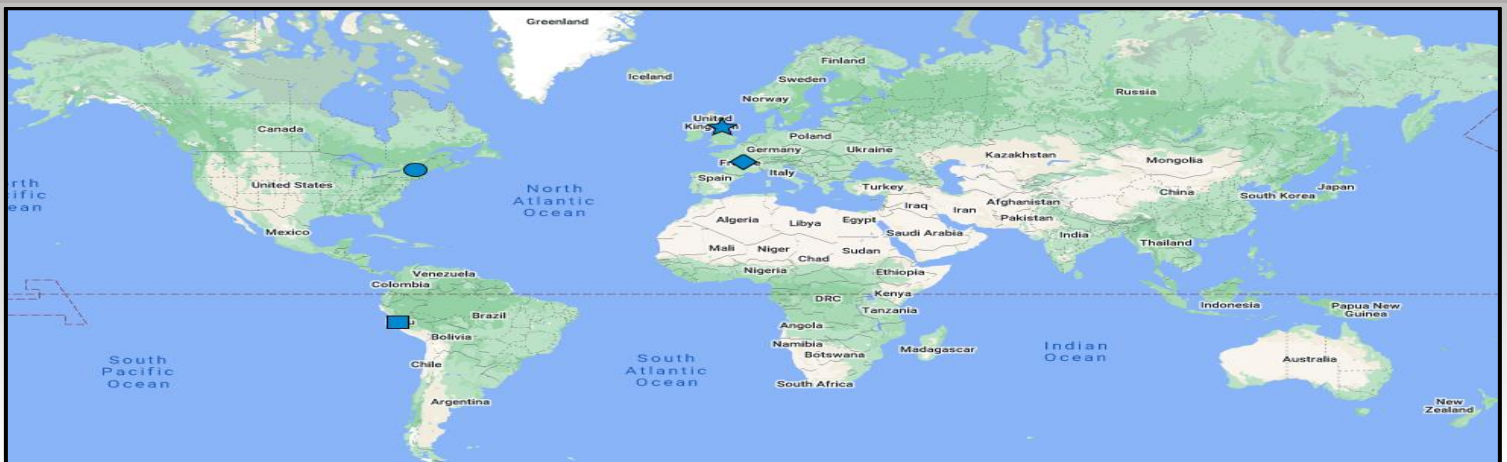
### Possible - Ebola

Health officials in the **UK** are investigating a potential Ebola case in **Colchester**, after a patient with suspected symptoms returned to **Britain** from **Africa**; the **UK** Health Security Agency are testing the patient for a range of diseases as part of a routine infection control protocol that kicks in when suspected cases emerge in travelers

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## NEW EVENTS: (events rated > 2)



### ★ Possible Ebola in UK

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

Health officials in the UK are investigating a potential Ebola case in Colchester, after a patient with suspected symptoms returned to Britain from Africa; the UK Health Security Agency are testing the patient for a range of diseases as part of a routine infection control protocol that kicks in when suspected cases emerge in travelers. [Read More](#)

Avg. Rating	3.0
No. of Signal	1
No. of Ratings	4

### ■ Highly Pathogenic Avian Influenza H5 in Peru

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

On 11 Nov 2022, a notification was received regarding the death of 200 seabirds (pelicans) on Los Cangrejos Beach, district of Paita, province of Paita, Peru. The diagnosis was carried out at SENASA's Animal Health Diagnostic Center Unit, where HPAI H5 was detected. [Read More](#)

Avg. Rating	2.5 - 3.0
No. of Signal	4
No. of Ratings	4 - 6

### ◆ Usutu virus in France

**Pathogen:** Virus ; **Transmission:** Vector-borne ; **Species affected in event:** Human

In France, the first case of autochthonous arbovirus in Nouvelle-Aquitaine was detected on October 18, 2022 in the Landes. Dengue and West Nile had initially been suspected, but after a second sample from the infected person, it turns out that it is the Usutu virus. In Europe, the first human cases of Usutu virus were detected in northern Italy in 2009 in immunocompromised patients. In France, the virus has been circulating since 2015, but only one case of human infection was detected in 2016 in the Hérault. [Read More](#)

Avg. Rating	2.4
No. of Signal	1
No. of Ratings	5

### ● *Echinococcus multilocularis* in Vermont and Virginia

**Pathogen:** Parasite ; **Transmission:** Ingestion ; **Species affected in event:** Human, fox

Researchers in Vermont are reporting on two human cases of alveolar echinococcosis (AE), caused by the European strain of the parasite *Echinococcus multilocularis*. They also found evidence of the strain in two red foxes in Virginia. Until now, human cases of the disease in the US had only been reported (many years ago) in Alaska and Minnesota and were caused by North American strains of the *E. multilocularis* parasite, which are considered less virulent than European strains. [Read More](#)

Avg. Rating	2.3
No. of Signal	1
No. of Ratings	4

## CONTINUED EVENTS: (events rated ≥ 2.4)

<p><b>Highly Pathogenic Avian Influenza in North America</b></p> <ul style="list-style-type: none"> <li>Over the last week, <a href="#">Canada</a> has reported outbreaks of HPAI H5N1 in commercial poultry in: British Columbia(7), Alberta(1), Saskatchewan(1), and Ontario(1); and in non-commercial non-poultry in: British Columbia(1), Manitoba(1)</li> <li>Over the last week, the <a href="#">USDA</a> has reported outbreaks of HPAI H5N1 in commercial poultry in: California, Minnesota, and Tennessee; and in backyard poultry in Florida and Mississippi</li> </ul>	<b>No. of Signals: 11</b>	<b>No. of weeks in report: 45</b>	<b>Avg. Rating: 2.0 - 3.0</b>
<p><b>Japanese Encephalitis in Australia</b></p> <ul style="list-style-type: none"> <li>In <a href="#">Australia</a>, communities along the Murray River are being encouraged to take measures to protect themselves against mosquito bites as routine animal surveillance indicates that Japanese encephalitis virus has survived winter in the region; detection of JE in pigs in the region was made as part of planned ongoing surveillance</li> </ul>	<b>No. of Signals: 01</b>	<b>No. of weeks in report: 13</b>	<b>Avg. Rating: 2.8</b>
<p><b>Ebola Virus in Uganda</b></p> <ul style="list-style-type: none"> <li>As of Nov 21, 2022, <a href="#">Uganda</a> has confirmed 141 cases (55 deaths) of Sudan virus disease with a case fatality ratio among confirmed cases of 39%; a total of 766 contacts are actively being followed-up in seven districts, with the follow-up rate being 54% in the past 24 hours</li> <li>Two more Ebola cases have been confirmed in <a href="#">Jinja District</a>, in eastern Uganda, with both being direct contacts of the initial Jinja case reported last week</li> </ul>	<b>No. of Signals: 04</b>	<b>No. of weeks in report: 08</b>	<b>Avg. Rating: 1.4 – 2.5</b>
<p><b>Highly Pathogenic Avian Influenza in Europe</b></p> <ul style="list-style-type: none"> <li><a href="#">Hungary</a>, <a href="#">Russia</a>, <a href="#">Moldova</a>, <a href="#">Germany</a>, <a href="#">Denmark</a> have reported outbreaks of HPAI H5N1 in domestic poultry</li> <li><a href="#">Germany</a>, <a href="#">Italy</a>, <a href="#">Sweden</a>, the <a href="#">UK</a>, <a href="#">Serbia</a>, and <a href="#">Switzerland</a> have reported 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>No. of Signals: 20</b>	<b>No. of weeks in report: 101</b>	<b>Avg. Rating: 2.0</b>
<p><b>Highly Pathogenic Avian Influenza in Asia</b></p> <ul style="list-style-type: none"> <li><a href="#">Japan</a> has reported another outbreak of HPAI H5N1 in domestic poultry, this time in Hyogo</li> <li><a href="#">Hong Kong</a> has reported HPAI H5N1 in wild bird droppings in the Mai Po Nature Reserve</li> </ul>	<b>No. of Signals: 02</b>	<b>No. of weeks in report: 78</b>	<b>Avg. Rating: 2.0</b>
<p><b>Highly Pathogenic Avian Influenza in Africa</b></p> <ul style="list-style-type: none"> <li><a href="#">South Africa</a> has reported HPAI H5N2 in domestic poultry in KwaZulu-Natal</li> </ul>	<b>No. of Signals: 03</b>	<b>No. of weeks in report: 36</b>	<b>Avg. Rating: 2.0</b>
<p><b>Highly Pathogenic Avian Influenza in South America</b></p> <ul style="list-style-type: none"> <li><a href="#">Colombia</a> has reported additional outbreaks of HPAI H5N1 in domestic poultry</li> </ul>	<b>No. of Signals: 01</b>	<b>No. of weeks in report: 02</b>	<b>Avg. Rating: 2.0</b>

## SCIENTIFIC FINDINGS & REPORTS:

### Influenza

- Reverse genetics based H5N2 vaccine provides clinical protection against H5N1, H5N8 and H9N2 avian influenza infection in chickens [Read More](#)
- Pre-print: Rapid evolution of A(H5N1) influenza viruses after intercontinental spread to North America [Read More](#)
- Pathogenesis and infection dynamics of high pathogenicity avian influenza virus (HPAIV) H5N6 (clade 2.3.4.4b) in pheasants and onward transmission to chickens [Read More](#)
- Influenza A virus reassortment in mammals gives rise to genetically distinct within-host subpopulations [Read More](#)
- Severe Human Case of Zoonotic Infection with Swine-Origin Influenza A Virus, Denmark, 2021 [Read More](#)
- Influenza D virus exposure among US cattle workers: A call for surveillance [Read More](#)
- H9N2 avian influenza viruses: challenges and the way forward [Read More](#)

### SARS-CoV-2

- Pre-print: Rising SARS-CoV-2 Seroprevalence and Patterns of Cross-Variant Antibody Neutralization in UK Domestic Cats [Read More](#)
- Seroprevalence of SARS-CoV-2 in 1186 Equids Presented to a Veterinary Medical Teaching Hospital in California from 2020 to 2022 [Read More](#)

### Other

- Pathogen spillover driven by rapid changes in bat ecology [Read More](#)
- The Global Trade in Donkey Skins: A Ticking Time Bomb [Read More](#)
- Potential Drivers for the Re-Emergence of Canine Leptospirosis in the United States and Canada [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.