**Streptococcus zooepidemicus**

A recent article on a Swine Health Information Center webinar cautions that humans harboring the Strep. zoo bacteria could trigger outbreaks in pigs; this finding was based on the fact that an individual barn worker who transited to three different sites over three years spread Strep. zoo to all three sites, making this bacteria capable of amphixenosis with the involvement of humans.

**Highly Pathogenic Avian Influenza**

Over the last week, Canada has reported outbreaks of HPAI in commercial poultry in: British Columbia (1), Alberta (2), and Quebec (1); in non-commercial non-poultry in: British Columbia (1).

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**NEW EVENTS: (events rated > 2)**

- **African Swine Fever in Bangladesh**
  
  **Pathogen:** virus; **Transmission:** direct contact, fomite, vector; **Species affected in event:** swine
  
  Bangladesh has reported cases of ASF for the first time. According to media reports, pigs started dying in the Rangamati District, Chittagong Division, on November 13, at the only official pig farm in Bangladesh. The farm kept 13 pig breeds and around 100 pigs had died by November 22. Samples sent to the Central Disease Investigation Laboratory tested positive for ASF by PCR.

- **Hantavirus pulmonary syndrome in British Columbia**
  
  **Pathogen:** virus; **Transmission:** direct contact, inhalation; **Species affected in event:** human
  
  A Pemberton man is recovering after contracting hantavirus, which he thinks he contracted while cleaning his attic before leaving for a family vacation to Mexico. On average there are four to five new cases of HPS reported annually in Canada, usually observed in the spring/summer due to increased reproduction of the deer mouse population. The majority of HPS cases occur in the western provinces (British Columbia, Alberta, Saskatchewan and Manitoba) and the primary cause of the illness is the Sin Nombre virus.
## CONTINUED EVENTS: (events rated ≥ 2.4)

**Streptococcus zooepidemicus in North America**
- **No. of Signals:** 01
- **No. of weeks in report:** 06
- **Avg. Rating:** 3.2

A recent article on a Swine Health Information Center webinar cautions that humans harboring the Strep. zoo bacteria could trigger outbreaks in pigs; this finding was based on the fact that an individual barn worker who transited to three different sites over three years spread Strep. zoo to all three sites, making this bacteria capable of amphixenosis with the involvement of humans.

**Highly Pathogenic Avian Influenza in North America**
- **No. of Signals:** 09
- **No. of weeks in report:** 94
- **Avg. Rating:** 2.0 - 3.0

- Over the last week, Canada has reported outbreaks of HPAI in commercial poultry in: British Columbia(1), Alberta(2), and Quebec(1); in non-commercial non-poultry in: British Columbia(1)
- Over the last week, the USA has reported outbreaks of HPAI in commercial poultry in: South Dakota(5), California(5), Minnesota(3), Wisconsin(2), Ohio(2), and Arkansas(2); in WOAH poultry in: Michigan(1); in WOAH non-poultry in: Kansas(3), South Dakota(1), Vermont(1), and Iowa(1)

**Highly Pathogenic Avian Influenza in Europe**
- **No. of Signals:** 24
- **No. of weeks in report:** 155
- **Avg. Rating:** 2.0

- Germany, France, Belgium, the Netherlands, Hungary, and England have reported HPAI H5N1 in domestic birds
- Italy, Hungary, and Germany have reported HPAI H5N1 in wild birds
- France has raised its risk level for AI from “moderate” to “high” and has ordered that a third dose of vaccine against AI be given to ducks in areas most at risk
- A summary of the overall HPAI situation in Europe is available [here](#)

**Highly Pathogenic Avian Influenza in Asia**
- **No. of Signals:** 14
- **No. of weeks in report:** 120
- **Avg. Rating:** 2.0

- South Korea has reported four recent outbreaks of HPAI H5N1 in domestic poultry across the country; previous AI cases were reported in April 2023
- South Korea and Japan have reported HPAI in wild birds
- Israel has reported additional outbreaks of HPAI H5N1 in domestic poultry

**Highly Pathogenic Avian Influenza in Africa**
- **No. of Signals:** 01
- **No. of weeks in report:** 60
- **Avg. Rating:** 2.0

- Ghana has reported avian influenza in Ashaiman municipality, where 7,847 birds have died so far
SCIENTIFIC FINDINGS & REPORTS:

**Coronavirus**

- SARS-CoV-2 seroprevalence determination in pets and camels in Egypt using multispecies enzyme-linked immunosorbent assay

**Influenza**

- Characterization of Highly Pathogenic Avian Influenza A (H5N1) Viruses isolated from Cats in South Korea, 2023
- Pre-print: Outbreak of Highly Pathogenic Avian Influenza Virus H5N1 in Seals in the St. Lawrence Estuary, Quebec, Canada
- Pre-print: Pathogen-prey-predator relations of avian raptors during epizootics of highly pathogenic avian influenza virus HPAIV H5N1 (clade 2.3.4.4b) in Germany
- Experimental infection of pigs and ferrets with “pre-pandemic,” human-adapted, and swine-adapted variants of the H1N1pdm09 Influenza A virus reveals significant differences in viral dynamics and pathological manifestations
- Concern regarding H3-subtype avian influenza virus

**Foot and Mouth Disease**

- Isolation, molecular characterization, and genetic diversity of recently isolated foot-and-mouth disease virus serotype A in Egypt

**Mpox**

- ECDC - Implications for the EU/EEA of the outbreak of mpox caused by Monkeypox virus clade I in the Democratic Republic of the Congo

**Vectors and Vector-borne Disease**

- Systematic literature review on the vector status of potential vector species of 36 vector-borne pathogens
- Do birds play a role in the transmission of Toscana virus? Initial isolation results from birds in northernmost Türkiye
- Dynamics of Crimean-Congo hemorrhagic fever virus in two wild ungulate hosts during a disease-induced population collapse
- Alarming Update on Incidence of Crimean-Congo Haemorrhagic Fever in Iraq in 2023
- Unveiling P. vivax invasion pathways in Duffy-negative individuals
- Infection of wild-caught wood mice (Apodemus sylvaticus) and yellow-necked mice (A. flavicollis) with tick-borne encephalitis virus

**Other**

- Distribution and prevalence of antibodies to Trichinella spp. and Toxoplasma gondii in wild pigs (Sus scrofa) in the United States
- Pre-print: Rat hepatitis E virus (HEV) cross-species infection and transmission in pigs
- ECDC - Communicable disease threats report, 3-9 December 2023, week 49
- SHIC Global Disease Monitoring Report – December 2023

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.