



South Carolina Department of Health and Environmental Control

Highly Pathogenic Avian Influenza H5N1 (Bird Flu) 2024

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SC Food Safety Task Force

June 4, 2024

Agenda

- Overview of virus
- Current situation
- Animal health surveillance & protection
- Human health surveillance & protection
- Future concerns
- Q&A

Disclaimer

- This is an ongoing, evolving situation.
- While much has been learned, there is still even more to be determined, and information could change.
- Monitor trusted, known resources to stay up to date.

Avian Influenza

- Influenza virus types A & B
- Avian influenza (bird flu) is a subtype of influenza A that widespread infects birds
- Avian influenza is low pathogenic or highly pathogenic (HPAI)
 - Most bird flu is LPAI but concern is about those that are HPAI because spread more rapidly and cause more severe disease in birds
- H5N1 is a subtype of influenza A

Avian Influenza

- Bird flu occurs naturally worldwide in wild aquatic birds (reservoirs, or hosts, for the virus)
- Can then infect other bird species, including domestic poultry
- Infected birds shed virus in saliva, nasal secretions, and feces
- Other birds are infected directly from virus shed from bird or from contact with contaminated surface

Domestic Bird Outbreaks

- Potential for LPAI to become HPAI
- Rapid spread and death, causing agricultural implications
- Economic and trade restrictions due to outbreak
- Possibility of spread to humans

Current Situation

- H5N1 bird flu is widespread in wild birds worldwide
- Causing outbreaks in domestic poultry since Feb. 8, 2022
 - 1,145 flocks in 48 states (492 commercial, 653 domestic)
 - 3 in SC flocks (1 in Nov. 2022 and 2 in Jan. 2024; Beaufort, Horry, & Orangeburg counties)
- Spread to lactating dairy cattle in US
- 3 Human cases in 2024



Wild Birds

Wild Birds Detected

9,373

as of 5/28/2024 | [Full Report >](#)



Poultry

Poultry Affected

96,565,226

as of 5/30/2024 | [Full Report >](#)



Dairy Cows

Dairy Herds Affected

79

as of 6/3/2024 | [Full Report >](#)

Jurisdictions with Bird Flu in Wild Birds

50

States with Poultry Outbreaks

48

States with Outbreaks in Cows

9

as of 6/3/2024 | [Full Report >](#)



Highly Pathogenic Avian Influenza (HPAI) H5/H5N1 Detections Since September 2023

HPAI Detections

- Domestic Birds
- Domestic and Wild Birds
- Wild Birds

Updated: 05/30/2024

Countering Weapons of Mass Destruction
National Biosurveillance Integration Center



1500

3000 Miles

Highly Pathogenic Avian Influenza (HPAI) H5/H5N1 Detections since January 2024

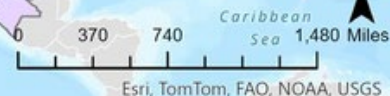
Detection Type

- Non-commercial detections
- Commercial flock affected
- Wild birds affected
- Domestic and wild birds affected

- Central flyway states/provinces
- Pacific flyway states/provinces
- Mississippi flyway states/provinces
- Atlantic flyway states/provinces

Updated: 05/30/2024

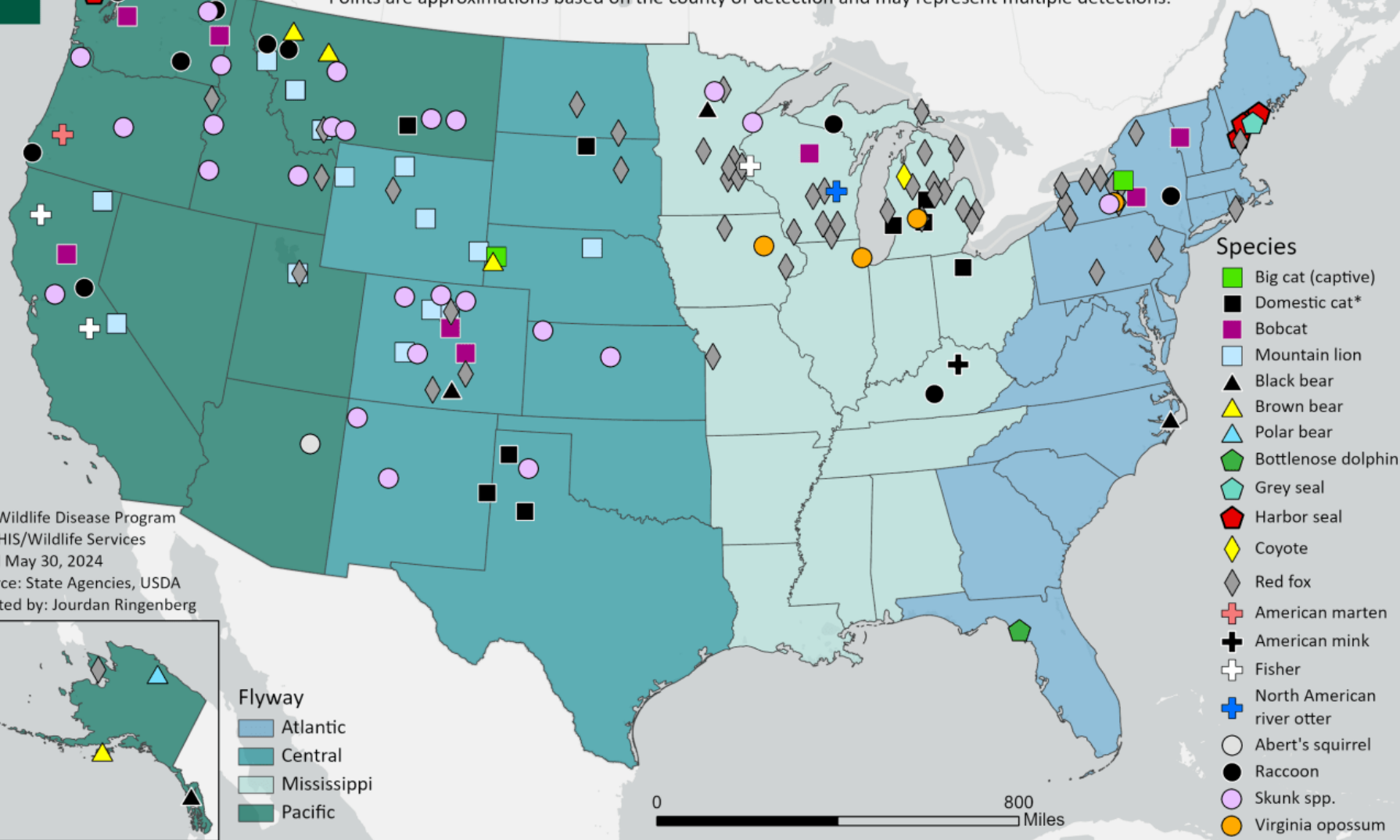
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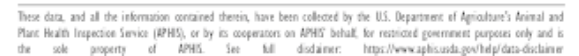
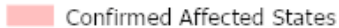
Detections of High Path Avian Influenza EA H5N1 in Mammals, May 2022 to Present

Points are approximations based on the county of detection and may represent multiple detections.



Dairy Cattle Outbreaks

- First detected in TX & KS March 25, 2024
- All in lactating dairy cattle
- 79 herds in 9 states to date
- Federal order April 24 for pre-movement testing
- Not detected in SC



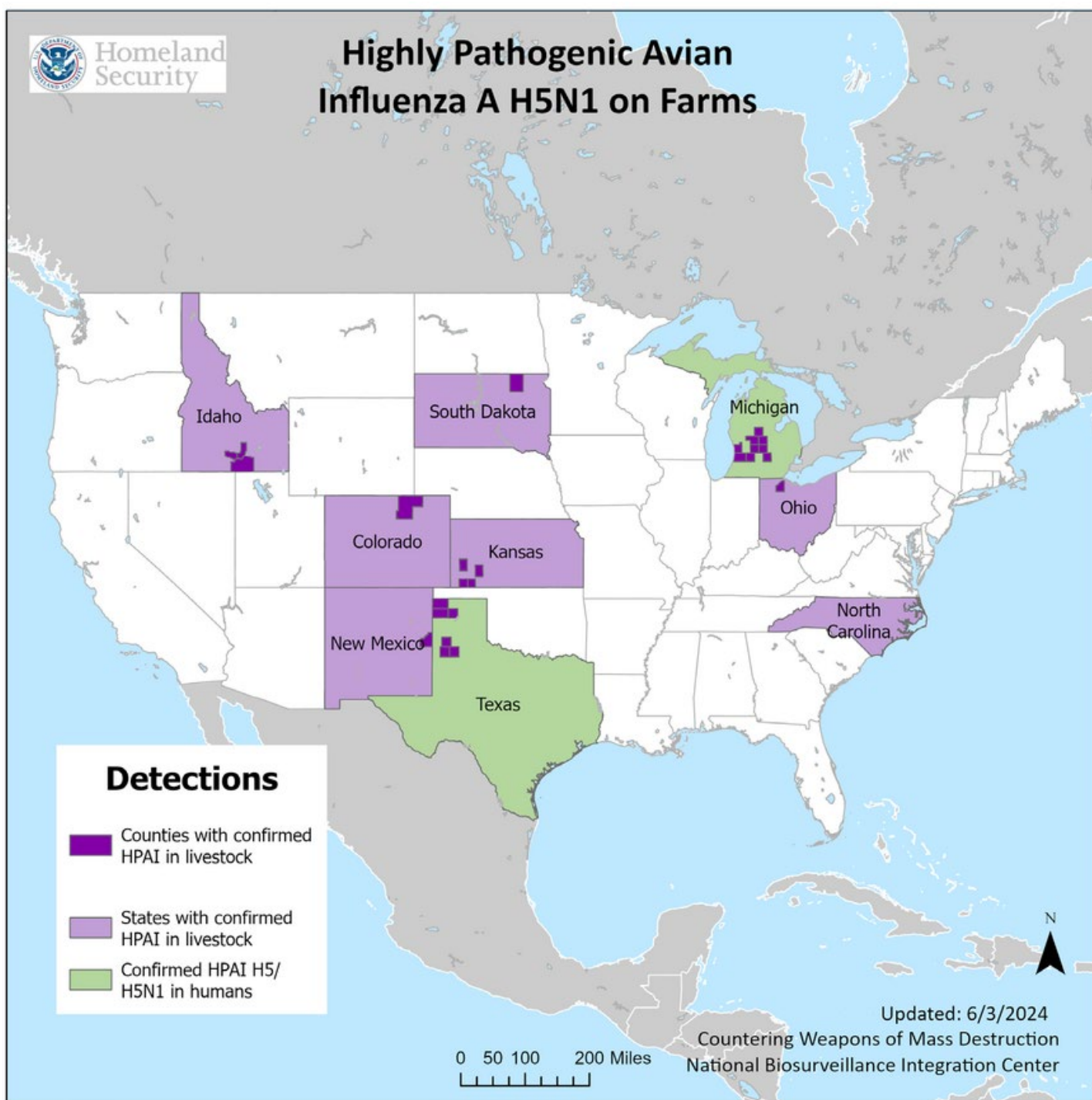
Human Cases

- 1 potential case in 2022 in poultry worker in Colorado (? true infection vs just presence of virus in nose; only sx was fatigue)
- 3 cases with current HPAI outbreak in 2024
 - First in TX April 1
 - All dairy farm workers
 - 2 with conjunctivitis (eye infection), most recent also with respiratory sx and positive resp specimen



Homeland
Security

Highly Pathogenic Avian Influenza A H5N1 on Farms



Animal Health

- Routine surveillance of wild birds ongoing
- Biosecurity is CRITICAL for poultry & livestock
- Monitor for signs of illness in domestic birds:
 - Sudden death
 - Decreased energy/ activity or appetite
 - Decreased egg production or deformed eggs
 - Respiratory symptoms
 - Swelling or purple color
 - Abnormal twisting of head/neck
 - Stumbling or falling
 - Diarrhea

Protect Your Birds With Biosecurity

- ▲ Keep wild birds away from your farm! They can spread disease to your poultry.
- ▲ Secure feed bins and water sources to prevent wildlife contamination.
- ▲ Limit access to your property and your birds. Disinfect any vehicles that enter your farm.
- ▲ Avoid visits to other poultry farms, and don't lend or borrow equipment. Bring only cleaned and disinfected items into your bird area.
- ▲ Wash hands and scrub boots before and after entering a poultry area. Wear disposable boot covers and coveralls, if possible.
- ▲ Buy birds only from National Poultry Improvement Plan (NPIP)-participating breeders, hatcheries, or dealers.
- ▲ Isolate new birds and those returning from shows for 30 days before placing them with your flock.

Dairy Cattle Health

- Biosecurity is CRITICAL
- Symptoms to watch for:
 - Decreased food intake
 - Decreased or abnormal milk production
 - Respiratory symptoms including clear nasal discharge
- APHIS Requirements:
<https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza>

Reporting Sick/Dead Animals

- Wild birds: SC Dept. of Natural Resources
(803) 734-3886
- Poultry or cattle: Clemson Livestock Poultry Health (803) 788-2260 or via online form
(<https://www.clemson.edu/public/lph/avianinfluenza/report.html>)

Human Health

- Current risk to public is LOW but those with exposure to potentially infected animals/birds are at increased risk
- Avoid unprotected exposure to sick or dead animals or birds
- Wear PPE when in direct contact with potentially infected animals/birds or their droppings or other contaminated materials
- If exposed, need to monitor for symptoms for 10 days after last exposure

Human Health

- Symptoms:
 - Conjunctivitis (eye redness and irritation due to infection)
 - Respiratory symptoms
 - Fever
 - Fatigue
 - Muscle or joint soreness
 - Headache
- PPE: DHEC, in partnership with others, is providing one-time PPE donation to dairy facilities

Reporting Human Illness

- Symptoms + exposure: immediate notification to DHEC Epidemiology 1-888-847-0902 or regional DHEC public health office
- DHEC should already know about exposed persons through coordination with Clemson LVH and be assisting with monitoring for symptoms

Food and Milk

- Testing of beef cattle specimens has all been negative to date
 - Avoid eating uncooked or undercooked beef or poultry
 - Wash hands well after handling uncooked food
- No concern for commercial milk supply
 - Specimens tested positive by PCR but cultures were all negative – positive PCR results were of virus fragments that could not infect anything/one
 - Raw milk from infected cows does test positive

Future Concerns

- Migratory patterns of wild birds spreading virus to state
- Fair season in fall with lactating dairy cattle visiting
- Virus mutation to increase spread among animals and to humans or even between humans
- Virus mutation to cause more severe illness

Most Important Resources

- **Clemson LVH Avian Influenza:**
<https://www.clemson.edu/public/lph/avianinfluenza/>
- **USDA APHIS Avian Influenza:**
<https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza>
- **CDC HPAI Guidance:**
<https://www.cdc.gov/flu/avianflu/groups.htm>

Thank you!

Questions?

CONTACT US

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