



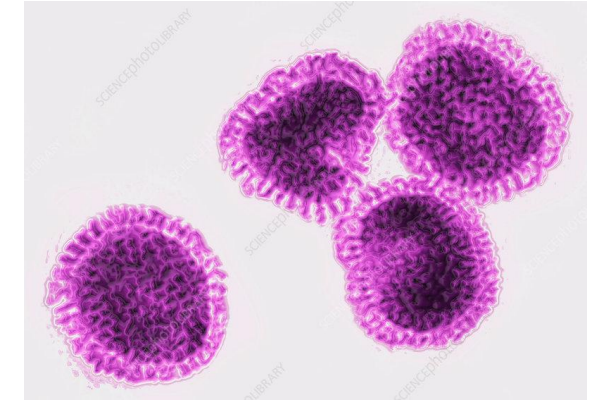
HPAI Updates for Zoos and Wildlife Professionals

USDA VS Response
March 17, 2022

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Poultry Specialist / Veterinary Medical Officer

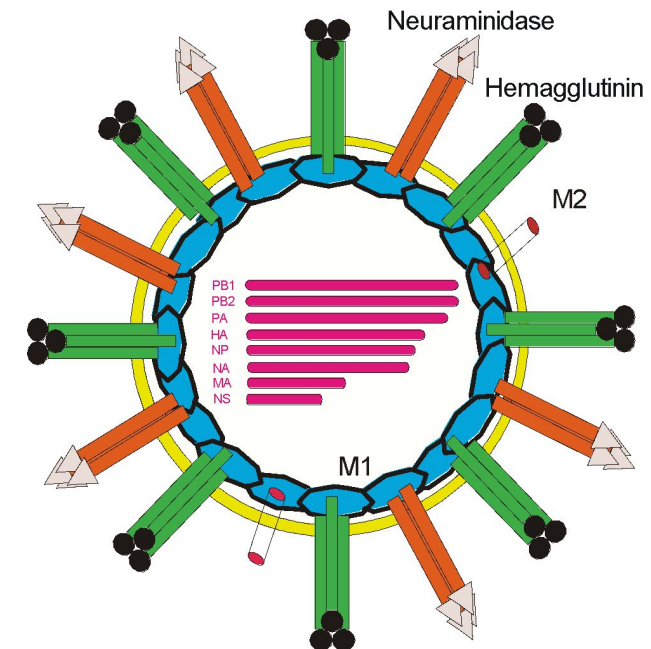


Avian Influenza Virus



Orthomyxovirus

- Influenza A type found in birds
- RNA
- Major surface proteins
 - Hemagglutinin (H1-H16)
 - Neuraminidase (N1-N9)
 - 144 combinations
- Virulence is variable
 - Low Pathogenic - LPAI
 - Highly Pathogenic - HPAI

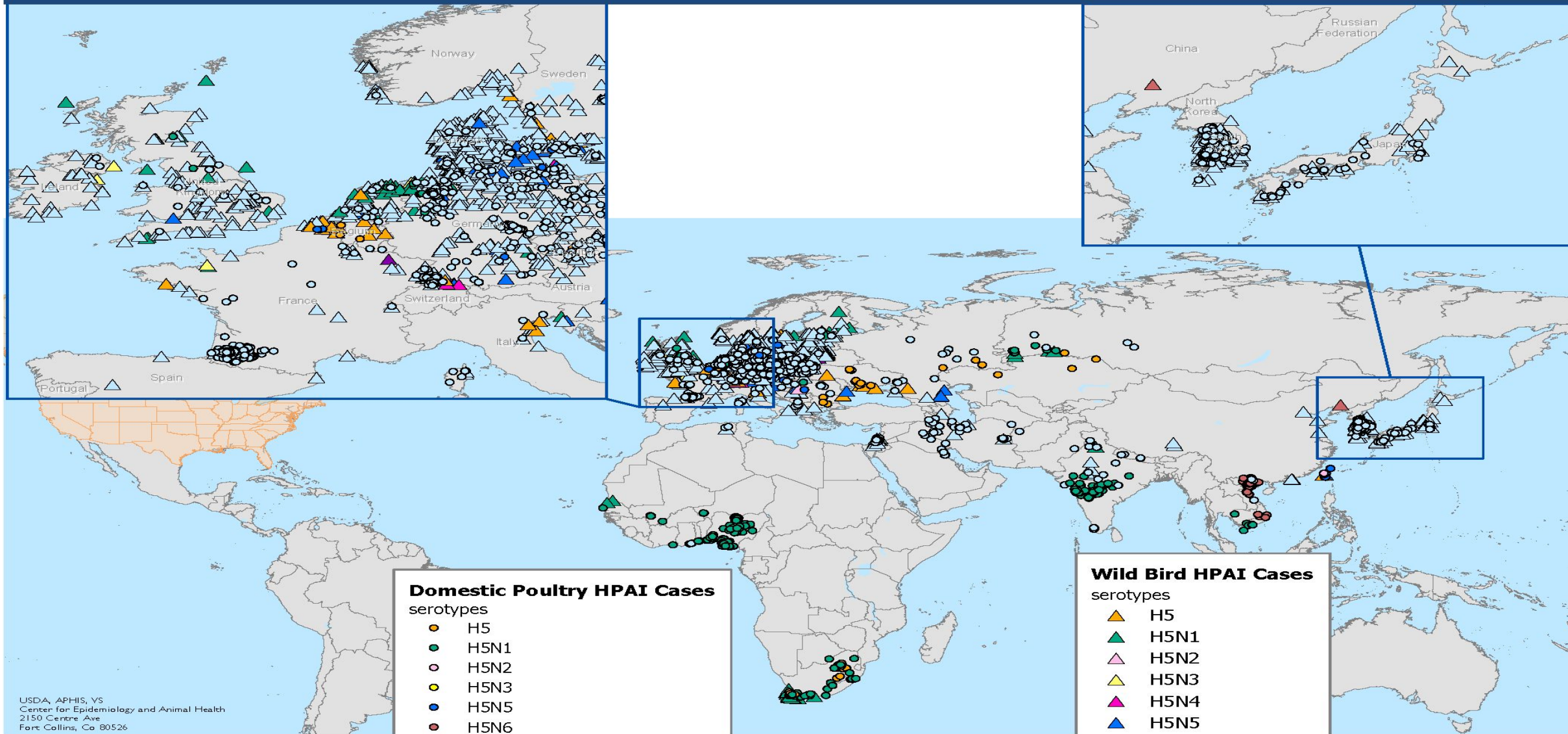


HPAI US Outbreak Dec 2014 - June 2015

- 211 detections on commercial operations and 21 detections on backyard premises
- Approximately 7.4 million turkeys and 43 million egg-layers and pullet chickens were affected by HPAI and died from the disease or were depopulated
- This outbreak was the largest HPAI outbreak ever recorded in the United States and arguably the most significant animal health event in U.S. history
- HPAI was detected in 21 States (including wild birds)



Highly Pathogenic Avian Influenza Detections



Domestic Poultry HPAI Cases
serotypes

- H5
- H5N1
- H5N2
- H5N3
- H5N5
- H5N6
- H5N8
- H7N3
- H7N7

Wild Bird HPAI Cases
serotypes

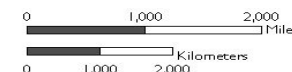
- ▲ H5
- ▲ H5N1
- ▲ H5N2
- ▲ H5N3
- ▲ H5N4
- ▲ H5N5
- ▲ H5N6
- ▲ H5N8
- ▲ H7N7

USDA, APHIS, VS
Center for Epidemiology and Animal Health
2150 Centre Ave
Fort Collins, Co 80526

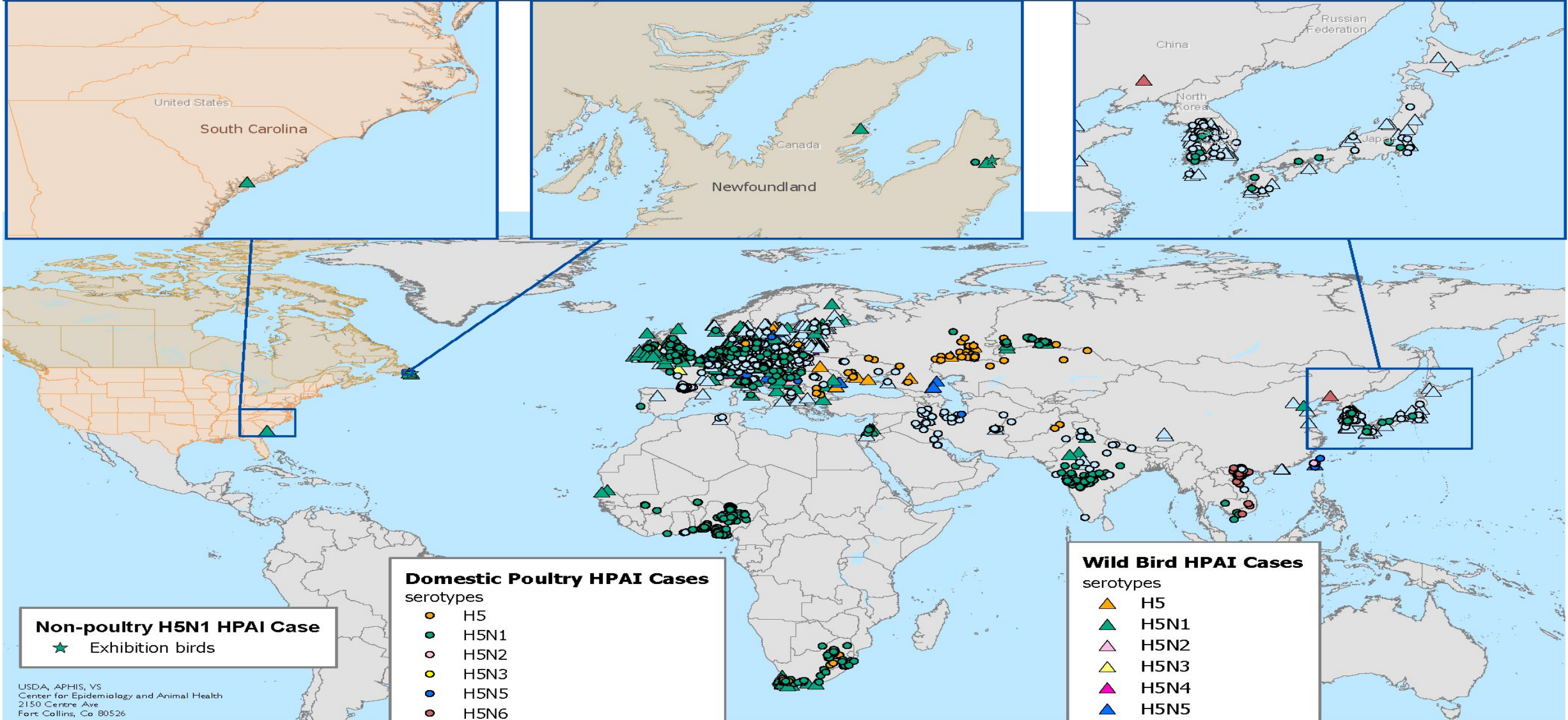
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Data Source: World Organisation for Animal Health (OIE)

Coordinate System: GCS WGS 1984



Highly Pathogenic Avian Influenza Detections



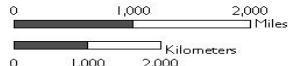
Non-poultry H5N1 HPAI Case
★ Exhibition birds

- Domestic Poultry HPAI Cases**
serotypes
- H5
 - H5N1
 - H5N2
 - H5N3
 - H5N5
 - H5N6
 - H5N8
 - H7N3
 - H7N7

- Wild Bird HPAI Cases**
serotypes
- ▲ H5
 - ▲ H5N1
 - ▲ H5N2
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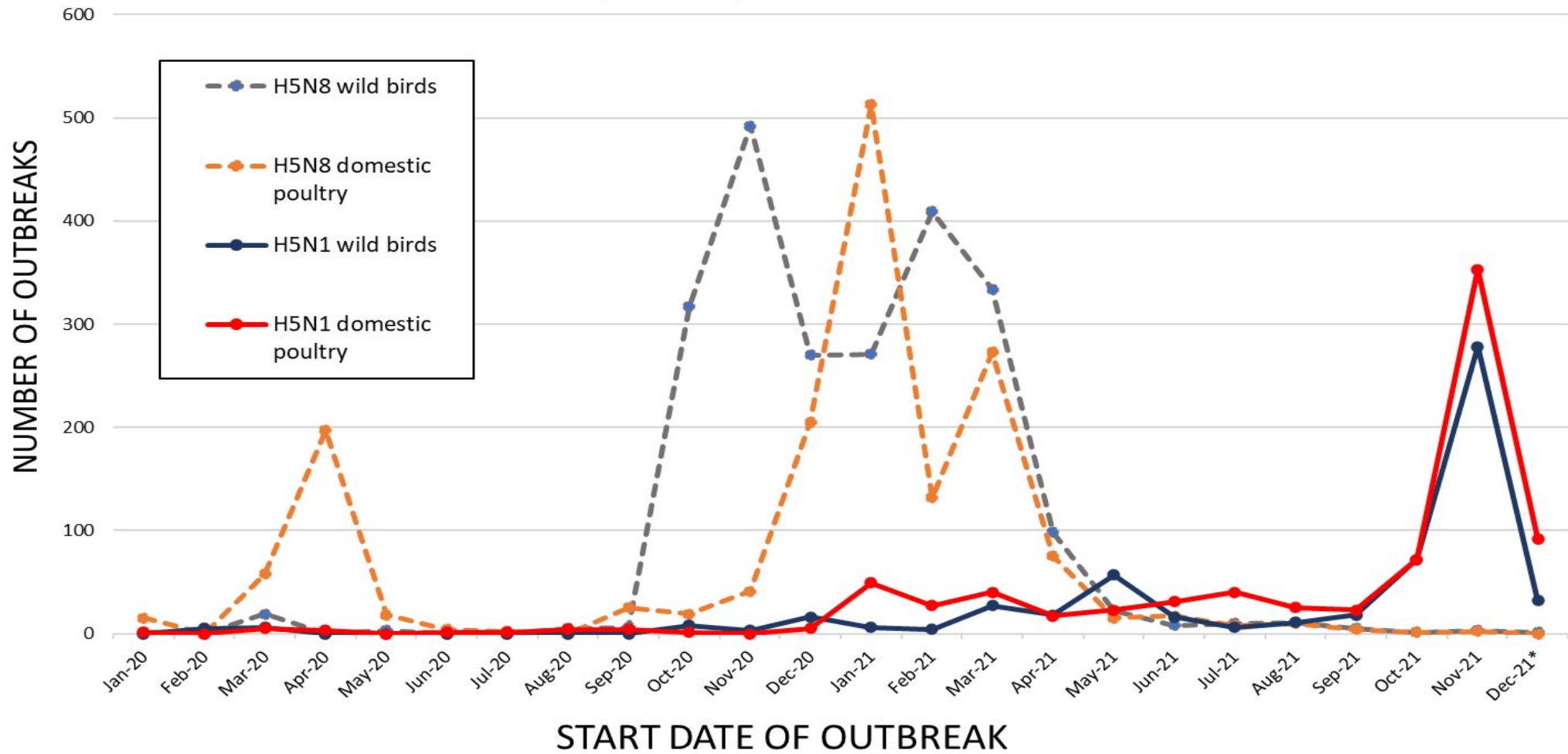


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Credit: Dr. Sherrilyn Wainwright, USDA VS CEAH

H5N8 and H5N1 Highly Pathogenic Avian Influenza
detections in domestic poultry and wild birds
1/1/2020 to 12/31/2021*
as reported by 67 countries to the OIE

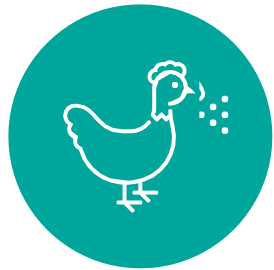


* EXPECTED LAG IN DATA REPORTING TO THE OIE

Highly Pathogenic Avian Influenza



Cornell University/PIADC



Spread By

- Direct contact (droppings, bodily discharges, feathers, infected birds)
- Indirect contact (hands, shoes, clothes, equipment)



Signs

- Depressed
- Decreased feed and water intake
- Runny nose and eyes, swollen head



Infection

- Can affect the entire flock
- Death rate up to 100%

www.aphis.usda.gov/animalhealth/defendtheflock

Captions:

www.bit.ly/Webinar_Spring2022

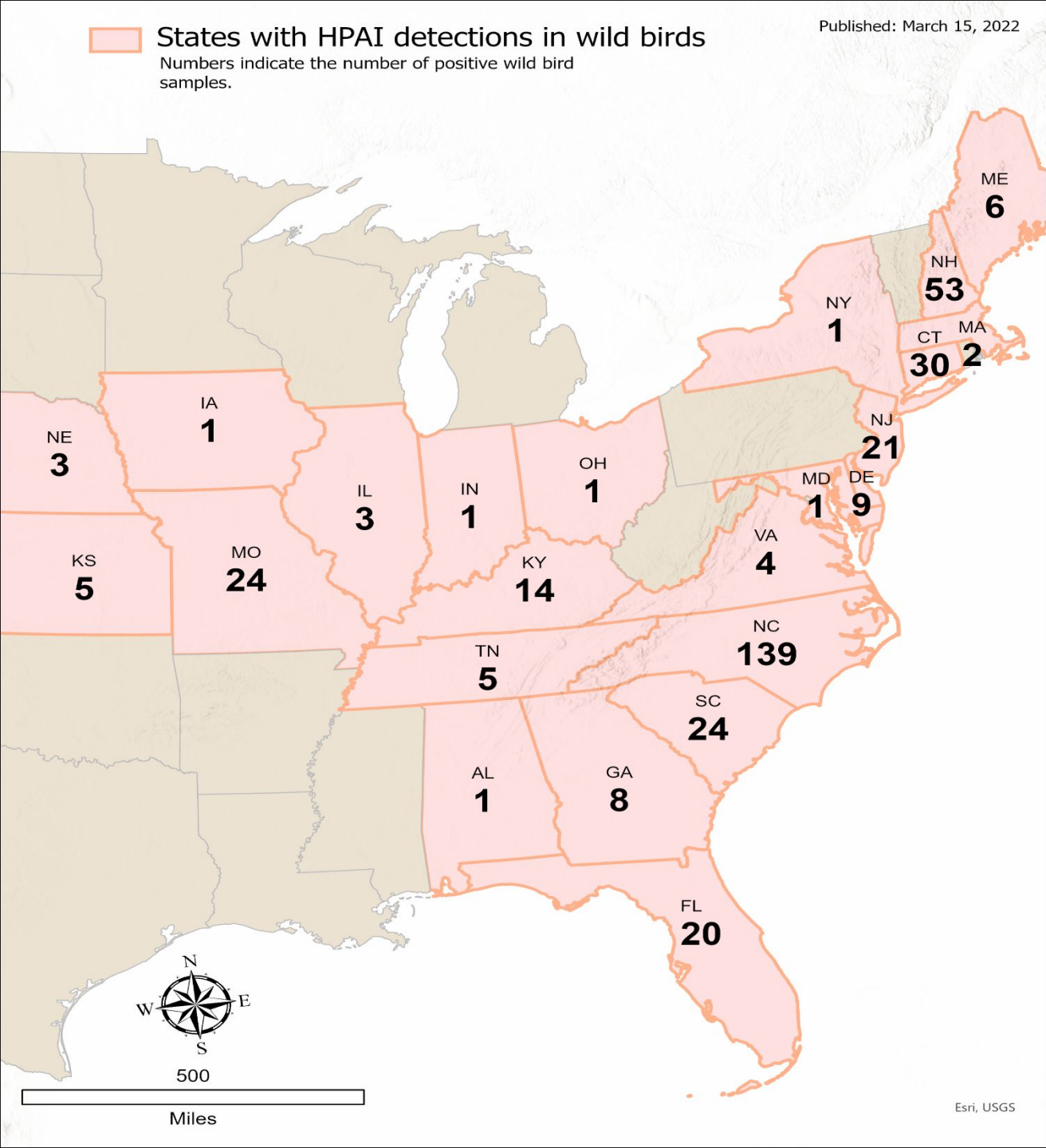


Treatment

None

2022 US Wild Bird Detections (376)

USDA APHIS | 2022 Detections of Highly Pathogenic
Avian Influenza in Wild Birds



OVERVIEW OF THE U.S. NATIONAL SITUATION

Confirmed Affected Counties

Total # of Confirmed Premises

State	Poultry	OIE Non-Poultry	Grand Total
Connecticut		1	1
Delaware	2		2
Illinois		1	1
Indiana	6		6
Iowa	2	1	3
Kansas	1		1
Kentucky	2		2
Maine		3	3
Maryland	3		3
Michigan		1	1
Missouri	3	1	4
New York		3	3
South Dakota	2		2
Virginia		1	1
Wisconsin	1		1
Grand Total	22	12	34

Map last updated on
3/14/2022



HPAI Response Process

1 Detect

You see signs of illness or sudden deaths in your flock. You report it to your private veterinarian or a State or USDA veterinarian. Samples are taken and tested. You find out your flock is positive for HPAI.

2 Quarantine

USDA and State personnel come to your farm. We assign you a case manager who will be your main point of contact onsite, answer your questions, and guide you through the needed paperwork. We will also place your operation under quarantine, meaning only authorized workers are allowed in and out, and movement restrictions for poultry, poultry products, and equipment go into effect. We contact neighboring poultry farms and start testing their birds to see if they've been affected, too.

3 Appraise

We work with you to create a flock inventory. This lists how many birds you have, what species they are, their age, and other key details. USDA will compensate for birds that must be destroyed using species-specific calculators.

4 Depopulate

Infected flocks are depopulated as quickly as possible—ideally within 24 hours of the first HPAI detection—to get rid of the virus.

5 Compensate

Affected producers must certify their biosecurity plan prior to an HPAI detection. Split payments can be provided between the owner and contract grower. You receive your first indemnity payment early on in the response process. We also pay you a standard amount for virus elimination activities (cleanup work).

6 Disposal

USDA will help you dispose of the dead birds safely. Disposal methods include composting, burial, incineration, rendering, or landfilling. The options you'll have depend on several things: what type of farm you have, the specific conditions there, State and local laws, and what you prefer.

7 Manage Virus

The next step is to wipe out all traces of the virus at your property. To kill the virus, thoroughly clean and disinfect the barn, equipment, and all affected areas of your farm. You can do this work yourself or hire contractors to handle it.

8 Eliminate

As soon as you're ready, let your case manager know you're finished with cleanup. Your site must then stay empty for at least 21 days. During this time, we'll return to collect and test environmental samples. We need to confirm that your property is completely virus-free.

9 Test Restock

Once USDA and State both approve, we'll restock your facilities and start production again. State officials will release your farm from quarantine after all required testing and waiting periods are done.

10 Maintain Biosecurity

After restocking, you'll need to maintain the highest biosecurity standards to keep the virus from coming back. For biosecurity tips, go to www.aphis.usda.gov/ publications and download the factsheet "Prevent Avian Influenza at Your Farm."



How Long Does the Process Take?

Ideally, this entire process could be completed in as soon as 60–120 days. However, the timeframe varies depending on many things (for example, flock size, depopulation and disposal methods used, test results, farm's location).

We're committed to restoring production as fast as we can while also protecting poultry health.

Questions?

Talk with your case manager or the State or Federal officials responding to the disease event in your area.

For general information and contacts, visit:

www.usda.gov/avian_influenza.htm

www.aphis.usda.gov/fadprep

www.aphis.usda.gov/animalhealth/defendtheflock



Protect Your Flock from Wild Birds



Wild birds are the source of infection in this year's outbreak so far.

- Confine birds to covered houses or runs
- Keep birds away from ponds and other outdoor open water sources
- Feathers, nests, feces, and other organic materials can carry disease. Look around the poultry enclosure for wild bird droppings and remove promptly

www.aphis.usda.gov/animalhealth/defendtheflock

Captions: www.bit.ly/Webinar_Spring2022



Report Sick Birds



Report sick birds or unusual deaths immediately to:

- State Veterinarian
- Cooperative Extension
- USDA 1-866-536-7593

www.aphis.usda.gov/animalhealth/defendtheflock

Captions: www.bit.ly/Webinar_Spring2022



Defend the Flock Resources

USDA
United States Department of Agriculture



DEFEND THE FLOCK
BIOSECURITY

Do you own or work with poultry?
Let's keep our poultry healthy together.

Animal and Plant Health Inspection Service

USDA
United States Department of Agriculture

BIOSECURITY
Every day.
Every time.



DEFEND THE FLOCK
Let's keep our poultry healthy together

Report Sick Birds
866-536-7593

#DefendTheFlock
www.aphis.usda.gov/animalhealth/defendtheflock

USDA
United States Department of Agriculture

Report Sick Birds
If you see signs of illness, take action right away!

Veterinarian _____
Cooperative Extension Office _____
State Veterinarian/Animal or Poultry Diagnostic Lab _____
USDA 866.536.7593

Animal and Plant Health Inspection Service



New/Replacement Birds
Starting out with new poultry?

0:13 / 1:40

www.aphis.usda.gov/animalhealth/defendtheflock

Captions: www.bit.ly/Webinar_Spring2022



More Tools To Protect Your Flocks

Biosecurity is a Team Effort

Backyard and Exhibition Growers
Veterinarians
Industry Growers and Workers
Government Agencies

USDA Let's keep our poultry healthy together
#DefendTheFlock
aphis.usda.gov/animalhealth/defendtheflock

Germs that cause poultry diseases can survive in manure and litter for a long time.
Plan for secure collection, transportation, and storage.

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aphis.usda.gov/animalhealth/defendtheflock

Respond quickly to signs of disease.
Report unexplained bird illness or death immediately.

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Separate the poultry house from potential disease sources.
Keep a clear line of separation between the poultry area and the rest of the world.

USDA Let's keep our poultry healthy together
#DefendTheFlock
aphis.usda.gov/animalhealth/defendtheflock

Keep It Clean: wear separate gear when caring for your poultry.

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Keep your flock away from activities that can spread disease.
Establish a perimeter buffer area to separate flocks from management tasks.

USDA Let's keep our poultry healthy together
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www.aphis.usda.gov/animalhealth/defendtheflock



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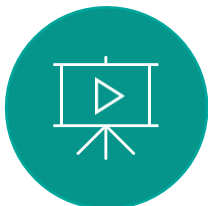
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