



# California Wildlife Center

## Patient of the Week

### July 29, 2022



Red-shouldered Hawk. Photo by Brittany Moser



American Crow. Photo by Jenn Guess



Mallard. Photo by Brittany Moser

## Highly Pathogenic Avian Influenza

By Guthrum Purdin, DVM

In a world where the news is full of emerging new diseases, one that is having a dramatic impact on wildlife is Highly Pathogenic Avian Influenza (HPAI). Like the seasonal human flu, this is a Type A influenza virus, distinguished by proteins on its surface, called hemagglutinin (H) and neuraminidase (N). The Hs help the virus attach to a host's cells and the Ns help newly replicated virus to escape the cell and continue the cycle of infection. Broadly speaking, type A influenzas are identified by the kinds of Hs & Ns they carry. The current strain of HPAI making its way across North America is a variant of H5N1.

This subtype of H5N1 has been devastating to a wide variety of avian species and has proven to be highly infectious. Birds that contract the disease commonly develop neurologic symptoms: abnormal twisting of the head and neck, chaotic seizure-like movements, paralysis, and tremors. Like other influenzas, respiratory problems can occur in affected individuals, including trouble breathing, nasal discharge, coughing, and sneezing. Although most infected birds do not survive this disease, there are some that can carry and spread it without showing any symptoms at all.

After causing outbreaks in Asia and Europe in 2021, the current H5N1 strain first appeared in North America last December when a wild gull and some domestic poultry tested positive in Newfoundland and Labrador on the East Coast of Canada. Since then, it has been spreading westward, especially along migratory flyways. As of this month, the first cases among wild birds were confirmed in California as far south as the San Francisco Bay Area. This virus is not very tolerant of hot, dry conditions; a fact that may have helped protect Southern California so far. Come autumn, when migratory waterfowl start heading south, that situation is likely to change. It could arrive even sooner if infected domestic birds are transported from an affected part of the country, or if wild birds unknowingly carry it before migration.

Poultry are at high risk from HPAI. So far, no domestic cases have yet been found in California. The wild birds we commonly see at CWC that are most severely at risk include raptors, geese, ducks, other waterbirds, crows, and ravens. Smaller birds, like songbirds and doves can get HPAI but are less



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susceptible and less likely to become ill. Not only birds are at risk. Back east, a large number of Harbor Seals have become ill and died from HPAI. Skunks and foxes have also tested positive. Elsewhere in the world, cats and dogs have become infected, although the risk is considered relatively low. Fortunately, so far only a few humans have tested positive for this strain of avian influenza (AI). Here again, the risk to people is considered low.

HPAI is spread directly through bodily fluids like respiratory droplets, saliva, and droppings. It can be carried indirectly by people, animals, clothing, or other objects that have come in contact with a sick animal. People who work with birds, are outdoors around aggregations of waterbirds, or find sick wildlife, should carefully wash their hands plus any clothing that was exposed. Disinfect shoes and contaminated equipment.

What else can you do to help prevent the spread of this disease?

- If you handle birds, wash your hands carefully with soap and water.
- Avoid any contact between domestic poultry and wild birds.
- If you have outdoor chickens or other poultry, take down all bird feeders and bird baths.
- In general, bird feeders & bird baths should be cleaned and disinfected at least once a week. Once HPAI is in your area, these should be taken down until the crisis has passed.
- Keep pet birds indoors and away from other domestic or wild birds.
- If you might be handling sick birds or other wildlife, wear appropriate protection (like masks, gloves, and eye protection).
- Disinfect surfaces that have come in contact with birds or sick wildlife.
- The links below include ways to report sick or dead birds.

Here is some more detailed info from the California Department of Fish and Wildlife:

[https://nrm.dfg.ca.gov/FileHandler.ashx?](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=200657&inline=&utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=)

[DocumentID=200657&inline=&utm\\_content=&utm\\_medium=email&utm\\_name=&utm\\_source=govdelivery&utm\\_term=](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=200657&inline=&utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=)

And from the Los Angeles Department of Public Health:

[http://publichealth.lacounty.gov/vet/AI.htm?](http://publichealth.lacounty.gov/vet/AI.htm?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=)

[utm\\_content=&utm\\_medium=email&utm\\_name=&utm\\_source=govdelivery&utm\\_term=](http://publichealth.lacounty.gov/vet/AI.htm?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=)

This is a dynamic situation that could change at any time. Here at CWC our team is hoping for the best, while preparing for the worst. Our medical staff has been in touch with wildlife rehabilitators and governmental agencies across the US who have shared their experiences in fighting HPAI. Our hospital team has been planning and getting everything ready for the seemingly inevitable moment HPAI arrives here in SoCal. Since the first sick animals could appear at any time, we've moved to a "yellow alert" status. Biosecurity, cleaning, reorganizing treatment spaces, training, and collaborating with our colleagues at other local facilities have all been key ingredients in setting the stage for this autumn and winter and the dreaded "red alert" should HPAI arrive in our area.