



# Highly Pathogenic Avian Influenza

Outbreak Prevention Protocol  
September 2015

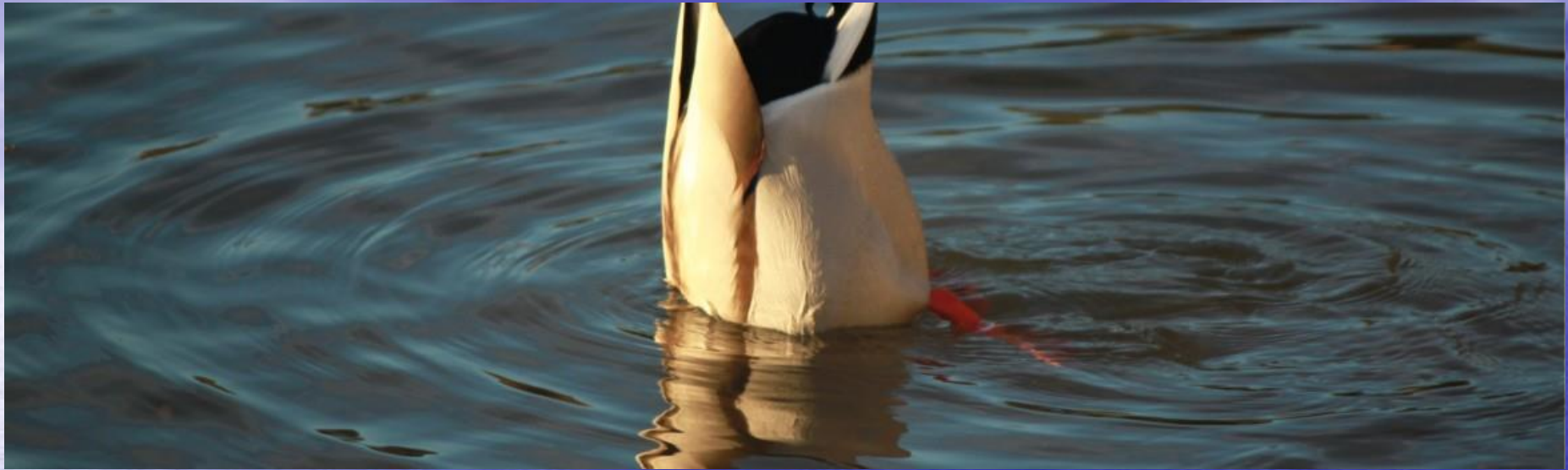
# BACKGROUND

- In November 2014 Highly Pathogenic Avian Influenza was discovered in British Columbia. By December the virus had made its way south to the United States with the first confirmed cases appearing in the Pacific Northwest.
- Since then HPAI has spread to 15 states across the Pacific, Central, and Mississippi flyways. By June 2015 new detection had begun to decline, but a resurgence is expected at the start of the fall migration.



- USDA is currently preparing for a large-scale pandemic that could reach all sectors of the United States this September-October.
- Since the beginning of 2015, over 50 million chickens (egg-layers and broilers) and turkeys have been de-populated due to HPAI
- The possible effects of a full-scale outbreak on the poultry and zoological collection community could be devastating. It is imperative that exhibitors, even those without birds, consider the impact a large-scale pandemic could have on their facilities including rising feed costs, quarantine of populations and possible euthanasia of infected or exposed collections.

# SPECIES INVOLVED



- Mainly dabbling species...Anatidae...The **Anatidae** are the biological family of birds that includes ducks, geese and swans.
- **RAPTORS** are **VERY SUSCEPTIBLE** after consuming birds infected with HPAI (first seen in falconry birds that caught and ate infected ducks).
- Deceased wild Cooper's Hawk tested + for HPAI this spring. Possible songbird transmission?
- Fecal content has significant viral loads of HPAI.



# MITIGATION



- Recently the ZAHP Fusion Center, along with AZA and American Association of Zoo Veterinarians recently had a discussion with USDA Wildlife Services, Animal Care and Veterinary Services to discuss wildlife mitigation strategies. Epidemiologists and scientists are still determining how the highly pathogenic avian influenza (HPAI) is spreading so rapidly in poultry farms in the upper Midwest. One thing is certain: Dabbling ducks (mallards, etc.) are reservoirs for the virus.



# HPAI in WILD BIRDS

- The U.S. Department of Agriculture's Wildlife Services needs hunters and bird watchers to keep an eye out for signs HPAI. These include the unexplained die-offs of birds or birds showing signs of being sick.
- CFRC will not be using any wild migratory birds (i.e. duck, songbirds, geese) as food for the Raptors, regardless of the cause of death.

# BIOSECURITY AT YOUR HOME

- Poultry, Poultry, Poultry... Very high mortality with HPAI so you will see the disease in them early.
- Home biosecurity with VOLUNTEERS who have ducks, poultry, or other birds, helps prevent spread and exposure of HPAI to the raptors at CFRC



For poultry and bird owners, Biosecurity can spell the difference between health and disease.

- **Biosecurity: Make it Your Daily Routine**

- Consistent biosecurity practices are the best way to prevent diseases such as HPAI. The following steps can help you keep your birds and CFRC's raptors healthy:
  - Keep your distance Isolate your birds from visitors and other birds.
  - Keep it clean Prevent germs from spreading by cleaning shoes, tools and equipment.
  - Don't haul disease home Also clean vehicles and cages.
  - Don't borrow disease from your neighbor Avoid sharing tools and equipment with neighbors.
  - Know the warning signs of infectious bird diseases Watch for early signs to prevent the spread of disease.
  - Report sick birds Report unusual signs of disease or unexpected deaths.



# KEEP YOUR DISTANCE

- **Restrict access to your property and your birds.**
- Consider fencing off the area where you keep your birds and make a barrier area if possible.
- Allow only people who take care of your birds to come into contact with them.
- **If visitors have birds of their own, do not let them near your birds.**
- Game birds and migratory waterfowl should not have contact with your flock because they can carry germs and diseases.

# Home Biosecurity-KEEP IT CLEAN

- Wear clean clothes
- Scrub your shoes with disinfectant
- Wash your hands thoroughly before entering your bird area.
- Clean cages and change food and water daily.
- Clean and disinfect equipment that comes in contact with your birds or their droppings, including cages and tools.
- Remove manure before disinfecting.
- Properly dispose of dead birds.



# KNOW THE WARNING SIGNS

- Sudden increase in bird deaths in your flock
- Sneezing, gasping for air, coughing, and nasal discharge
- Watery and green diarrhea
- Lack of energy and poor appetite
- Drop in egg production or soft- or thin-shelled misshapen eggs
- Swelling around the eyes, neck, and head
- Purple discoloration of the wattles, combs, and legs (AI)

**Early detection is important to prevent the spread of disease**

Birds with HPAI may show swelling of the head, eyelids, comb, and wattles.



Nasal discharge is a sign of HPAI.



Purple discoloration of the comb may be an indicator of HPAI.





# ALL NC POULTRY OWNERS

- The N.C. Department of Agriculture and Consumer Services is requiring all poultry owners, regardless of the number of birds, to register with [NCFarmID](#). This will facilitate the department in alerting poultry owners about an outbreak, especially owners in close proximity to a positive farm. Anyone already part of the National Poultry Improvement Plan is exempt from this requirement.
- <http://ncagr.gov/avianflu/>

# DISINFECTANTS

- **Influenza viruses** are killed by most detergents and disinfectants. Just be aware of the fact organic material has a negative effect on the efficacy of a disinfectant: **viruses which are covered with manure are well protected and can survive up to approx. 100 days. Complete removal of organic material is therefore an essential part of an effective disinfection procedure.** Contaminated litter and manure should be buried in order to not spread the infectious virus.
- After litter and manure is removed, clean and **disinfect all surfaces**, respecting the application recommendations of the manufacturer. Be sure that you **use a broad spectrum disinfectant**, which is proved also to be effective in the presence of 5% organic load and when applied with hard water!

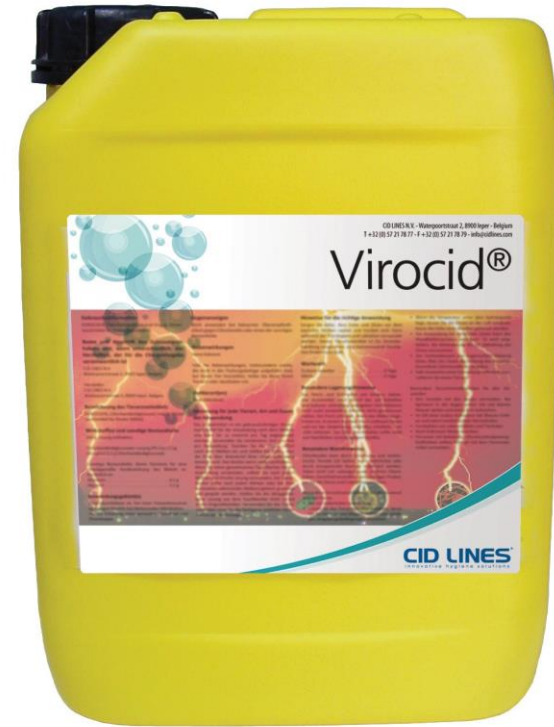




- 10% Bleach - Only stable for 10-14 days. Need to make new solution for foot bath or water pan cleaning every week on MONDAYS

Virocid for disinfection  
of hard surfaces, floors,  
cages, bath pans, etc.

CFRC staff will advise  
on where and how to  
use this.





# SPECIFIC PROTOCOL FOR CFRC

- Starting September 1<sup>st</sup>, 2015
- VISITORS FROM OTHER ORGANIZATIONS
  - Transfers from other organizations that also care for waterfowl...  
new intake sheet questioning the Raptor's exposure to waterfowl at their facility.
  - Entrance through side back door of HOSPITAL
  - Transporter has foot bath in and protective shoe covers placed on...
  - Immediate disinfection of their hands with PDI SANI-HANDS Disinfectant Wipes...
  - Transfer of Raptor via CFRC Staff and immediate movement of carriers/containers back to transporter's vehicle.
  - Disinfection of floor area or counter with VIROCID where carrier was placed, immediately after moving carrier.

# VOLUNTEER PROTOCOL FOR CFRC

- **Starting September 1<sup>st</sup>, 2015**
- **ENTER VIA SIDE DOOR ONLY**
- **WEAR CLEAN, NEW CHANGE of CLOTHES to VOLUNTEER**  
(If you have birds, poultry, ducks, at you house, you will need to have CLEAN CLOTHES ON THAT HAVE NOT BEEN EXPOSED TO ANY OF YOUR BIRDS...)



# CFRC Volunteer Procedures (Continued)

- **FOOTWEAR:**

KEY IS TO REMOVE/ELIMINATE ORGANIC DEBRIS... FECES, SOIL, ETC. from feet, vehicles, equipment, buckets, water pans, etc.

- **CLEAN SHOES... no mud, debris, grass, or other organic material from your home**
- PREFERRED: Get a new pair of shoes or rubber boots for CFRC specifically (this may eventually be required)...
- Prior to entering, use FOOT BATH OUTSIDE SIDE ENTRANCE DOOR
- DIP WHEN ENTERING and DIP WHEN LEAVING







# VOLUNTEER PROTOCOL FOR CFRC

- **After foot bath, apply  
PROTECTIVE SHOE COVERS**
- **IMMEDIATELY DISINFECT  
HANDS with SANI- HANDS**







# BETWEEN BIRD CONTACT

- WASH hands with detergent or Sani-Hands before and after handling a bird
- Birds that are resident birds, or have been at CFRC for 30+ days (over a 30 day quarantine period) should be HANDLED, FED, WEIGHED, and MEDICATED PRIOR TO TREATING OR HANDLING NEWER BIRDS/PATIENTS.



# Take Home Points...

- HPAI is not in North Carolina YET, but it will be...
- Do NOT BRING HPAI with you from your HOUSE... especially volunteers with poultry, DUCKS, or cross volunteers with other organizations.
- Protect our Raptors from exposure via transfers into CFRC from other groups that also treat waterfowl
- Practice good hygiene, hand washing, and patient handling protocols to minimize exposure and transmission of disease



Thank you for all you do for Cape Fear Raptor Center and the  
Birds!

"Spread Your Wings"!