CANADIAN WILDLIFE HEALTH COOPERATIVE

CWHC QUARTERLY REPORT
Q4-2022: OCTOBER - DECEMBER

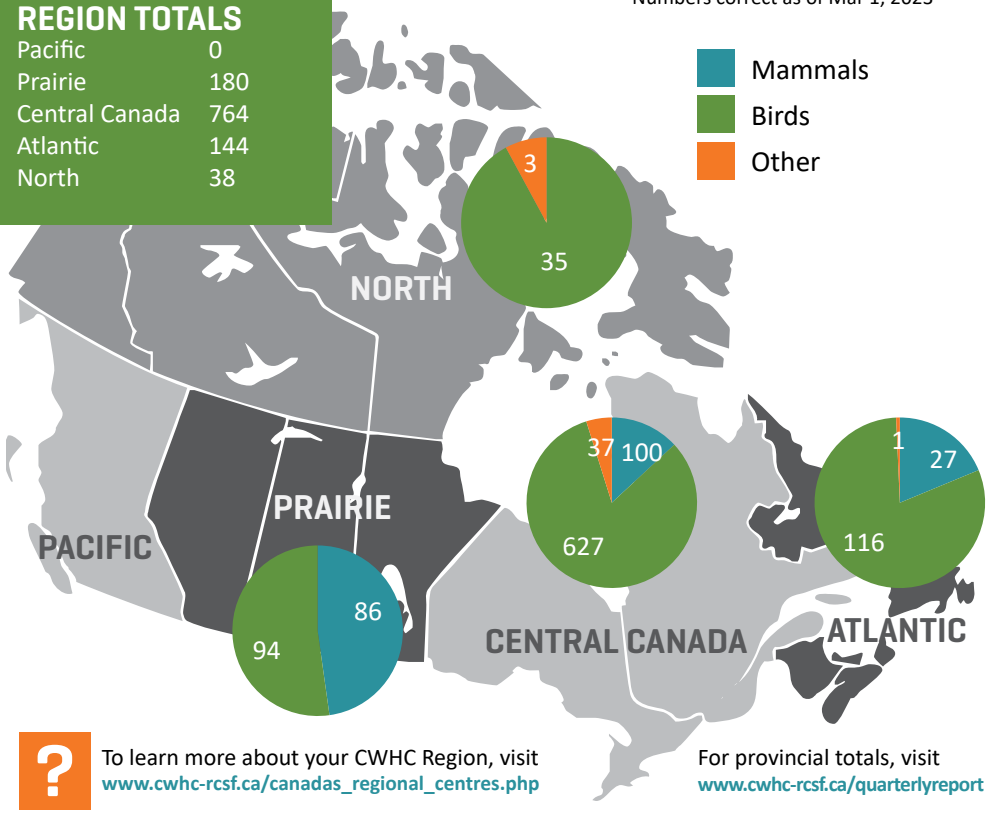
ANIMALS SUBMITTED by region

1126 ANIMALS TOTAL

* Numbers correct as of Mar 1, 2023

REGION TOTALS

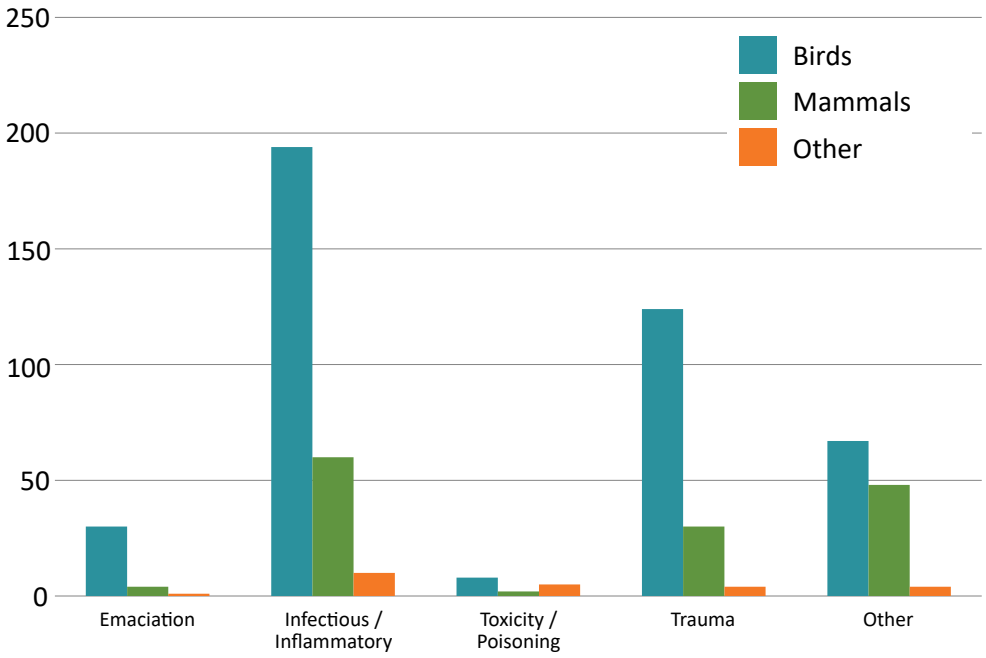
Pacific	0
Prairie	180
Central Canada	764
Atlantic	144
North	38



To learn more about your CWHC Region, visit www.cwhc-rcsf.ca/canadas_regional_centres.php

For provincial totals, visit www.cwhc-rcsf.ca/quarterlyreport

CAUSE OF DEATH category



PLEASE NOTE: An additional 508 cases submitted to CWHC in this quarter are still pending cause of death determination; 435 birds, 64 mammals, and 9 other species. 'Other' diagnoses include neoplastic, metabolic, and degenerative diseases as well as those cases where no cause of death could be determined.

SELECTED disease counts

RABIES

Examined	567
Positive	6

WHITE NOSE SYNDROME

Examined	25
Positive	0

AVIAN INFLUENZA

Examined	789
Positive	295

CHRONIC WASTING DISEASE

Examined	76
Positive	10

BOVINE TUBERCULOSIS

Examined	77
Positive	0

AVIAN CHOLERA

Examined	449
Positive	0

PLEASE NOTE: The cases reported above represent the data that are currently available in the CWHC database and should be considered preliminary. These data do not include all diagnostic testing for the selected pathogens carried out in Canada; additional testing is performed by other agencies and organisations. Examined refers to any candidate species for this disease. Testing is not always performed, unless the disease is suspected during necropsy or histological examination. Numbers are correct as of March 1, 2023.

For more information about positives, visit www.cwhc-rcsf.ca/quarterlyreport

CANADIAN WILDLIFE HEALTH COOPERATIVE

CWHC QUARTERLY REPORT
Q4-2022: OCTOBER - DECEMBER

HIGHLIGHTS

Another species of mammal susceptible to the H5N1 Avian Influenza Virus: first case in a white-sided dolphin

Here we report a case of fatal infection with the highly pathogenic H5N1 Avian Influenza Virus (AIV H5N1) in a white-sided dolphin (*Lagenorhynchus acutus*). This juvenile male dolphin was found dead stranded on September 5 on a beach near Rimouski (Quebec). The carcass was submitted by the Quebec Marine Mammal Emergency Response Network (RQUMM) to the CWHC - Quebec regional centre for analysis.

The animal was in good body condition, which is suggestive of death from an acute event. Apart from the presence of low intensity parasitic infections, no macroscopic lesion was observed in the animal. Histopathological examination of the tissues revealed the presence of inflammatory and necrotic lesions in the liver, lymph nodes and spleen. Acute inflammatory lesions were also present in the lungs (pneumonia) and brain (very mild encephalitis). Molecular analyzes carried out by the laboratory of the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec have revealed the presence of an AIV H5N1) in the brain. This result was confirmed by the Canadian Food Inspection Agency laboratory. The results of these examinations indicate that this dolphin died following an acute infection with an AIV H5N1 virus.

The data collected by the RQUMM does not seem to indicate an increase in white-sided dolphin mortality in the St. Lawrence Estuary this summer, despite the presence of an epidemic among harbour seals. This suggests that there has been no transmission of this virus between dolphins and therefore the number of cases should be limited; contact between dolphins and infected birds is probably infrequent.

FEATURED project

ANTICOAGULANT RODENTICIDE TOXICITY IN WILDLIFE PREDATORS

With all the news about avian influenza over the past few months, it is sometimes easy to forget that our local wildlife are dealing with other challenges on a daily basis. Unfortunately, one of these challenges comes in the form of a poison that we are utilizing to control other wildlife. In our previous blog reports, we discussed the use of anticoagulant rodenticides and how they are being detected in multiple raptor species (http://blog.healthywildlife.ca/raptors-and-rodenticides/). In addition to detecting these rodenticides in birds, we also occasionally examine predators who have died as a direct result of being exposed to these rodenticides.

So far in 2022, we have found evidence that supports anticoagulant rodenticide toxicity as the cause of death in 11 raptors and 1 mammalian carnivore. The species affected include 7 great horned owls, 2 red-tailed hawks, 1 turkey vulture, 1 bald eagle, and 1 red fox. Determining that an animal has died as a direct result of anticoagulant rodenticide toxicity can be challenging, but typically is achieved by finding evidence of either external or internal hemorrhage of unexplained cause, as well as detecting anticoagulant rodenticides in the liver at a level that is consistent with toxicity. We work with colleagues at the Animal Health laboratory at the University of Guelph who conduct the rodenticide testing for our cases.

As we continue to see more of these exposures and deaths secondary to anticoagulant rodenticide toxicity, there is more discussion as to whether the use of these poisons is completely necessary, when more targeted pest-control options are available. British Columbia has recently changed a temporary ban on the use of anticoagulant rodenticides to a now permanent ban on their use with few exceptions (https://www.cbc.ca/news/canada/british-columbia/bc-permanently-bans-rat-poison-1.6633727). It's possible that this ban will eventually lead to similar changes in other provinces, which would be good news for many of our predators that rely on rodents as their primary source of food.

WILDLIFE HEALTH tracker

Outbreak of tularemia in muskrats & beavers from Quebec

To our knowledge, these are the first cases of tularemia diagnosed in wild animals in this region of the province.

Canadian Partners in the protection of bats

That's a wrap, Bat Week 2022 has officially come to an end. This annual, international celebration of the role of bats in nature always offers a great opportunity to teach and learn about bats.

Highly pathogenic avian influenza virus is still present

At the end of November, more than fifty snow goose carcasses were observed on the shores of the Richelieu River in Saint-Jean-sur-le-Richelieu, Quebec.

HPAI tracker

For the most up-to-date information on HPAI in Canada, please visit the **Highly Pathogenic Avian Influenza - Wildlife Dashboard**.

For more information, visit www.cwhc-rcsf.ca/quarterlyreport

CREATING A WORLD THAT IS SAFE AND SUSTAINABLE FOR WILDLIFE AND SOCIETY