CANADIAN WILDLIFE HEALTH COOPERATIVE

CWHC QUARTERLY REPORT
Q4-2018: OCTOBER - DECEMBER

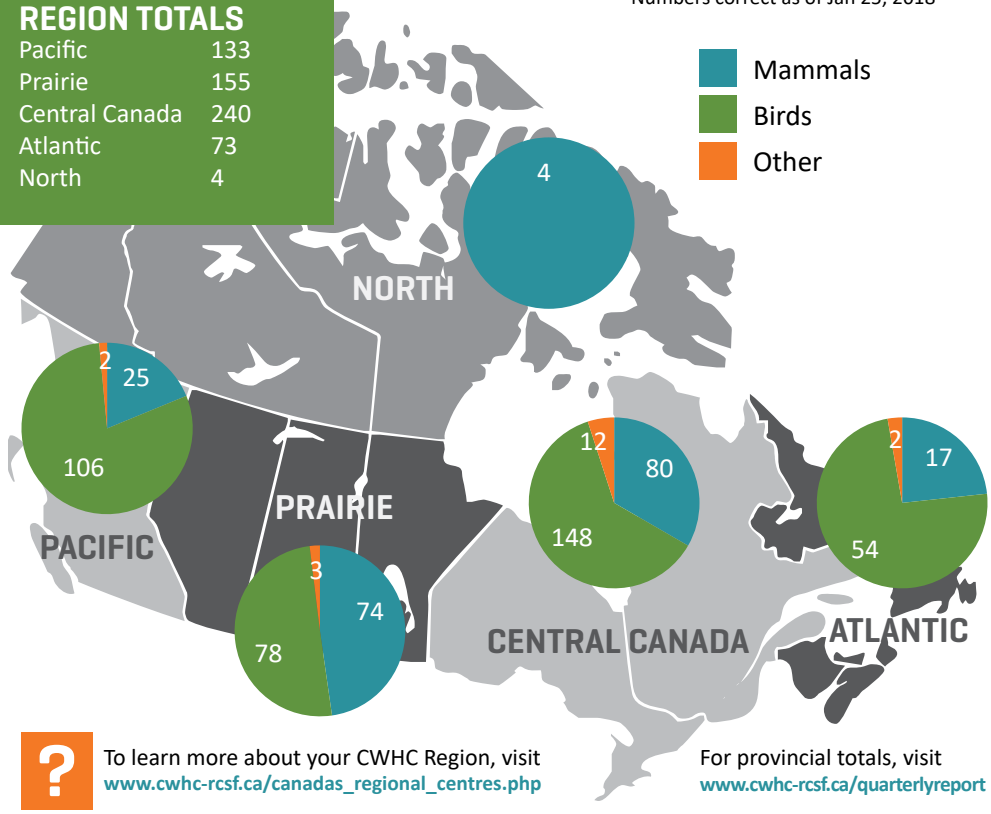
ANIMALS SUBMITTED by region

605 ANIMALS TOTAL

* Numbers correct as of Jan 25, 2018

REGION TOTALS

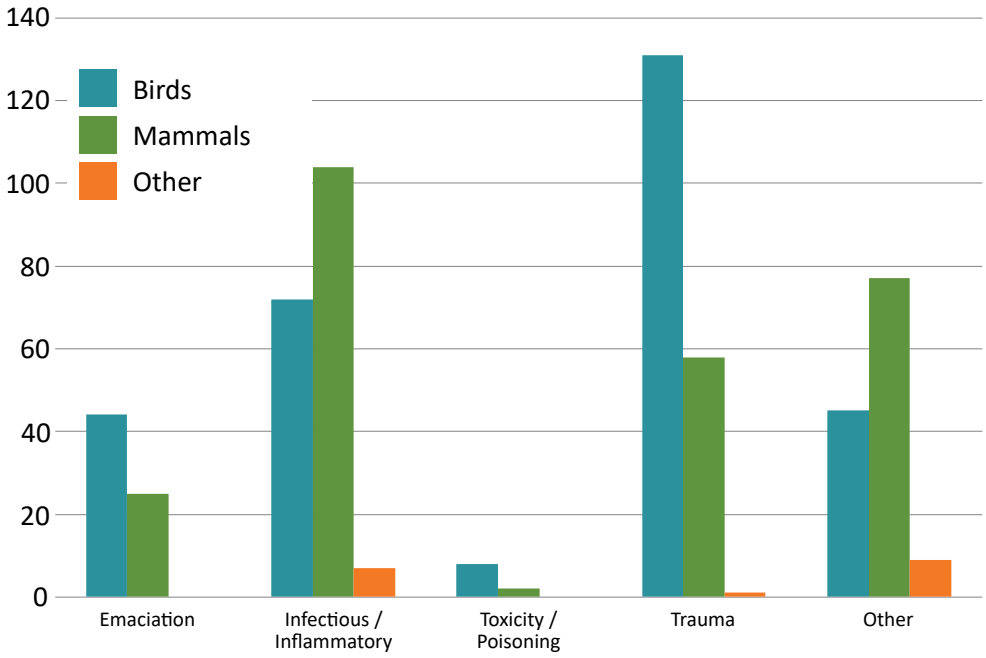
Pacific	133
Prairie	155
Central Canada	240
Atlantic	73
North	4



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 22 cases submitted to CWHC in this quarter are still pending cause of death determination; 5 birds, 15 mammals, and 2 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	280
Positive	3

WHITE NOSE SYNDROME

Examined	45
Positive	0

AVIAN INFLUENZA

Examined	212
Positive	2

PLEASE NOTE:
The AI viruses detected were of low-pathogenicity and North-American lineage. Both live bird samples and dead animal submissions are included.

CHRONIC WASTING DISEASE

Examined	303
Positive	117

BOVINE TUBERCULOSIS

Examined	305
Positive	0

AVIAN CHOLERA

Examined	82
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 January 25, 2018.

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

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HIGHLIGHTS

Ophidiomycosis (snake fungal disease) confirmed as the cause of death for two Massasauga rattlesnakes in Ontario

In October 2018, two Massasauga rattlesnakes were found to be suffering from numerous facial/oral swellings and ulcers. Infection with *Ophidiomyces ophiodiicola* was confirmed by polymerase chain reaction (PCR) from skin swabs from affected regions. The snakes failed to respond to therapy and both died in mid-November 2018. On post-mortem examination, both snakes had extensive ulcerative lesions over the face and extending into the oral cavity. Fungal hyphae were noted to be invading throughout the soft tissue of the head including into the nasal and oral cavities, the brain in one snake, and into the lung parenchyma in both snakes.

Ophidiomycosis (snake fungal disease) is caused by the fungus *Ophidiomyces ophiodiicola* and the earliest known case in Ontario was from a sample submitted in 2012 (which was tested in 2016 when the PCR became available). The disease has been increasing in prevalence across multiple states and provinces over recent years. Infection with *O. ophiodiicola* has been detected with frequency in snakes in Ontario (18.2% of snake samples received by the CWHC have tested positive by PCR from skin swabs or biopsies of lesions). Although *O. ophiodiicola* has been implicated in the deaths of snakes in other regions, it has never been implicated as the proximal cause of death in snakes in Ontario.

FEATURED project

HEALTH OF MUSKOXEN IN NUNAVIK, QUEBEC

Muskox is an iconic species for the Arctic ecosystem and for the Inuit culture. Several populations of muskoxen are declining in Canada. The Nunavik muskoxen population in Northern Quebec is the result of the introduction of approximately fifty animal issued from Ellesmere Island. The impact of this introduction on the Nunavik ecosystem is the subject of a study undertaken by Caribou Ungava and by the Ministère des Forêts, de la Faune et des Parcs. As part of this study, muskoxen were equipped with satellite collars to track their movements. The CWHC-Quebec team conducted a health assessment of the animals captured. The muskoxen examined seemed healthy; the very high pregnancy rate (94%) and the presence of several calves in the groups observed are indicators of good reproductive successes. Interestingly, serologic testing did not detect evidence of exposure to Brucella sp. and Coxiella burnetii, two pathogens reported in other muskoxen populations. On the other hand, blood tests suggest that 41% of the examined animals had been exposed to Erysipelothrix rhusiopathiae, a bacteria that has recently been implicated in mortality of muskoxen in Nunavut. In addition, antibodies against Besnoitia sp., a protozoan affecting the skin, and eggs of the great liver fluke (Fascioloides magna) were present in about half of the animals. Muskoxen are most likely "spill over hosts" for these two parasites, which are very common among caribou sharing this ecosystem. The health assessment conducted during this project does not suggest that the introduction of muskoxen represent a health risk for Nunavik migratory caribou populations.

WILDLIFE HEALTH tracker

CWD in Saskatchewan and Quebec

During the fall hunting season in Saskatchewan, over 2000 deer, elk and moose were tested for CWD In total, 299 (14%) animals tested positive.

Avian influenza in 2018

Over 1000 birds found dead from across Canada were tested for Avian Influenza virus in 2018. Among these cases, the virus was detected in 18 birds. but was not associated with disease in any of the animals.

Brain worm in Cape Breton Highlands National Park

In November, the CWHC Atlantic Region diagnosed "parelaphostrongylosis", commonly referred to as "brain worm" in a bull moose from Cape Breton Highlands National Park.

Mange in red foxes on PEI

Since late 2017, mange has been affecting foxes living in and around Charlottetown, PEI. To our knowledge, this is the first outbreak of mange in red foxes on the island.

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

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