



IMPACTS OF COVID-19 ON ETHICAL ANIMAL CARE AND USE PROGRAMS



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INTRODUCTION

The COVID-19 pandemic has impacted animal used in research, teaching, and testing across Canada at varying levels, and both its spread, and the efforts to contain it, have resulted in challenges for several Canadian Council on Animal Care (CCAC)-certified institutions. Since March 2020, CCAC program participants have worked to ensure that crisis management plans for their ethical animal care and use programs and animal facilities were in place and operational to mitigate negative consequences related to COVID-19.

In response to the pandemic, the CCAC required all certified institutions to complete a <u>COVID-19</u> <u>Animal Numbers Tracking Form</u>, regardless of whether their animal numbers were impacted by COVID-19. This information has provided a more complete picture of the consequences of the pandemic on ethical animal care and use programs, has helped ensure more accountability to the Canadian public, and will inform the development of future CCAC policies and improve preparedness.

Information collected in the form included the number and type of animals removed from research, teaching, and testing activities as a direct result of COVID-19, which were either:

- euthanized:
- transferred to a different protocol (such as a holding protocol, another study, etc.) within either the same institution or a different institution;
- removed from the protocol and the institution through private donation (e.g., adoption, etc.); or
- removed from the protocol and the institution and donated to a shelter.

Institutions were not asked to include animals for which the research, teaching, or testing activities were temporarily paused and later continued under the same initial protocol.

This *Impacts of COVID-19 on Ethical Animal Care and Use Programs* report provides insight into the effects of the pandemic on animals used in Canadian science between **January 1, 2020** and **June 30, 2021**. Please note that the CCAC only collects animal data from CCAC-certified institutions; as such, some animals used in Canadian science are not accounted for in this report. This data set may also include breeding, and/or holding/herding protocol animal numbers, which are not currently included in the CCAC's annual animal use data reports.

The past two years have been unprecedented and unpredictable. In recognition of the many challenges they faced during the pandemic, the CCAC would like to thank those within CCAC-certified institutions – scientists, teachers, animal care committees and coordinators, animal welfare experts, senior administrators, facility managers, animal care technicians, veterinarians, and all those who care for and use animals in science – for their dedication and determination in ensuring that proper protocols were in place and followed, and that the welfare of the staff and the animals in their charge were kept top of mind.

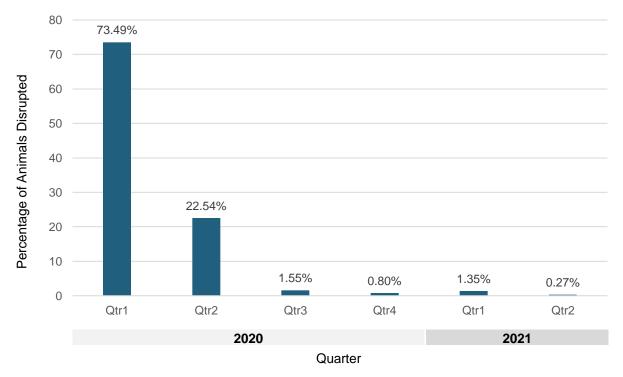
SUMMARY OF THE IMPACT OF COVID-19 ON ETHICAL ANIMAL CARE AND USE PROGRAMS

As a direct result of COVID-19:

- 204,637 animals were removed from research, teaching, and testing activities.
- Most animals (73.49%) were removed at the very outset of the pandemic (February and March 2020).
- Mice (64.35%) and fish (30.04%) represent 94.39% of all animals removed from research, teaching, and testing activities.
- The majority of all animals removed from research, teaching, and testing activities were euthanized.

DATE OF REMOVAL

Figure 1 Percentage of Animals Disrupted in Ethical Animal Care and Use Programs
Due to COVID-19 in 2020-2021 by Quarter



Note: The percentages in this graph may not total 100% due to rounding.

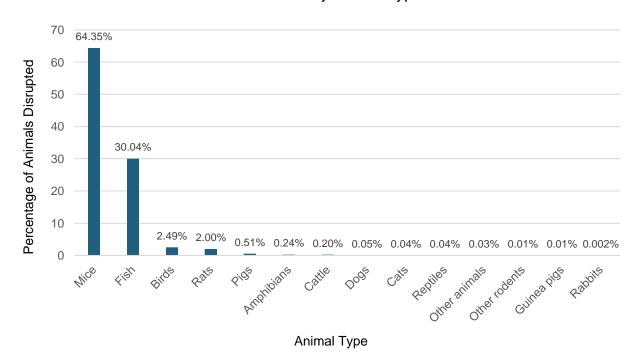
Table 1 Number of Animals Disrupted in Ethical Animal Care and Use Programs Due to COVID-19 in 2020-2021 by Date of Removal

DATE	NUMBER OF ANIMALS	PERCENTAGE		
2020				
January 1 – March 31	150,389	73.49		
April 1 – June 30	46,129	22.54		
July 1 – September 30	3,170	1.55		
October 1 – December 31	1,633	0.80		
2021				
January 1 – March 31	2,770	1.35		
April 1 – June 30	546	0.27		
TOTAL	204,637	100		

Note: The percentages in this table may not total 100% due to rounding.

NUMBER AND TYPE OF ANIMALS

Figure 2 Percentage of Animals Disrupted in Ethical Animal Care and Use Programs Due to COVID-19 in 2020-2021 by Animal Type



Note: The percentages in this graph may not total 100% due to rounding.

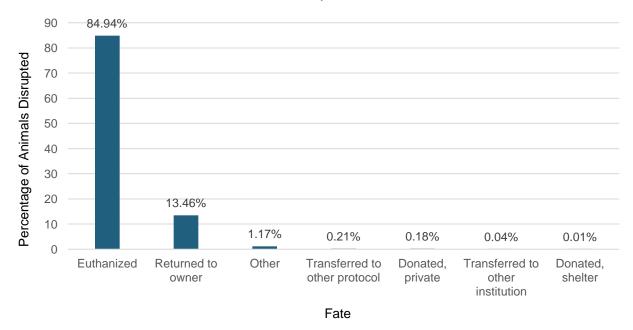
Table 2 Number of Animals Disrupted in Ethical Animal Care and Use Programs Due to COVID-19 in 2020-2021 by Animal Type

ANIMAL TYPE	NUMBER OF ANIMALS	PERCENTAGE
Mice	131,693	64.35
Fish	61,470	30.04
Birds	5,102	2.49
Rats	4,091	2.00
Pigs	1,044	0.51
Amphibians	481	0.24
Cattle	402	0.20
Dogs	96	0.05
Cats	81	0.04
Reptiles	73	0.04
Other animals	55	0.03
Other rodents	30	0.01
Guinea pigs	15	0.01
Rabbits	4	0.002
TOTAL	204,637	100.01

Note: The percentages in this table may not total 100% due to rounding.

FATE OF ANIMALS

Figure 3 Percentage of Animals Disrupted in Ethical Animal Care and Use Programs Due to COVID-19 in 2020-2021 by Fate



Note: The percentages in this graph may not total 100% due to rounding.

Number of Animals Disrupted in Ethical Animal Care and Use Programs Due to COVID-19 in 2020-2021 by Fate

FATE OF ANIMAL	NUMBER OF ANIMALS	PERCENTAGE
Euthanized	173,809	84.94
Returned to owner	27,542	13.46
Other ¹	2,386	1.17
Transferred to other protocol	435	0.21
Donated, private ²	361	0.18
Transferred to other institution	85	0.04
Donated, shelter	19	0.01
GRAND TOTAL	204,637	100.01

Note: The percentages in this table may not total 100% due to rounding.

¹ Examples of "Other" include released to the wild and sold.

² An example of "Donated, private" is adoption.