Canadian Council on Animal Care
Conseil canadien de protection des animaux

CCAC 2011 ANIMAL USE STATISTICS

OVERVIEW

In 2011 3,333,689 animals were reported to the Canadian Council on Animal Care (CCAC) as used in science (research, teaching and testing)*. The three most-used animal types were fish (1,300,259), mice (1,090,730) and rats (225,971).

Sixty-one percent of these animals (2,032,837) were used for studies of a fundamental nature/basic research, referred to as Purpose of Animal (PAU) 1. Education/training purposes (PAU 5) accounted for 4.7% of total animal use.**

In the highest Category of Invasiveness (CI), CI E, 128,873 animals were used representing 3.9% of total reported animal use. The three most used types of animals in CI E were fish, mice and guinea pigs.**

A detailed breakdown of the number of actual animals used by animal type and common name in each CI and PAU in 2011 is available in a downloadable Excel file.

LIMITATIONS OF THE DATA

* The CCAC program covers a range of institution sizes and types. Participation is mandatory for Canadian institutions that use animals in science and receive research funding from the Canadian national funding agencies (Canadian Institutes for Health Research and the Natural Sciences and Engineering Research Council). Many other Canadian institutions that use animals in science choose to participate in the CCAC program for public accountability and to ensure they meet national animal care and use standards. However, there may be some use of animals in science in Canada that is not accounted for by this dataset.

** For 2011 and all previous years of animal use reported to the CCAC, the data has reflected the number of individual animals used, where each individual animal has been reported only once. If an animal had been used two or more times in a calendar year (re-use), then only the most invasive use of that animal was reported by CCAC. This means that numbers presented for animal use per CI and animal use per PAU have been under-reported.
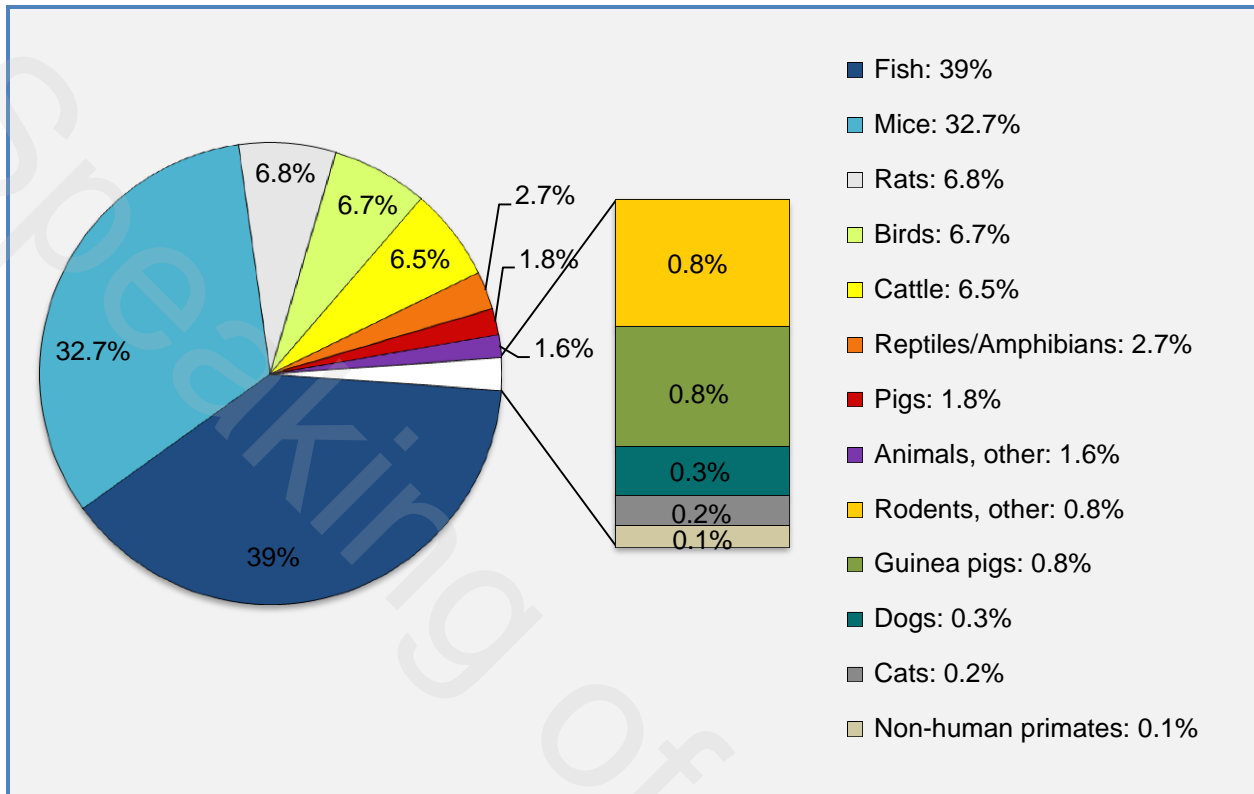
CCAC has taken steps to correct this discrepancy starting with data publication for 2012. Going forward, where animals are reported per CI or PAU, these numbers will be greater than the actual number of animals used (due to re-use). Over time, it may be possible to provide a 'correction factor' to estimate the difference between the number of actual animals used and the total number of animal uses in previous years.

DATA BY ANIMAL TYPE

Table 1: Number of animals used in science by type at CCAC-certified institutions in 2011

Animal type	Number of animals used	Percentage (%) of total
Fish	1,300,259	39.0
Mice	1,090,730	32.7
Rats	225,971	6.8
Birds	224,288	6.7
Cattle	216,588	6.5
Reptiles/Amphibians	90,010	2.7
Pigs	61,384	1.8
Animals, other	52,058	1.6
Rodents, other	26,532	0.8
Guinea pigs	25,095	0.8
Dogs	10,199	0.3
Cats	6,220	0.2
Non-human primates	4,355	0.1
Total	**3,333,689**	**100**

Figure 1: Proportion of animals used in science by type at CCAC-certified institutions in 2011

DATA BY CATEGORY OF INVASIVENESS (CI)
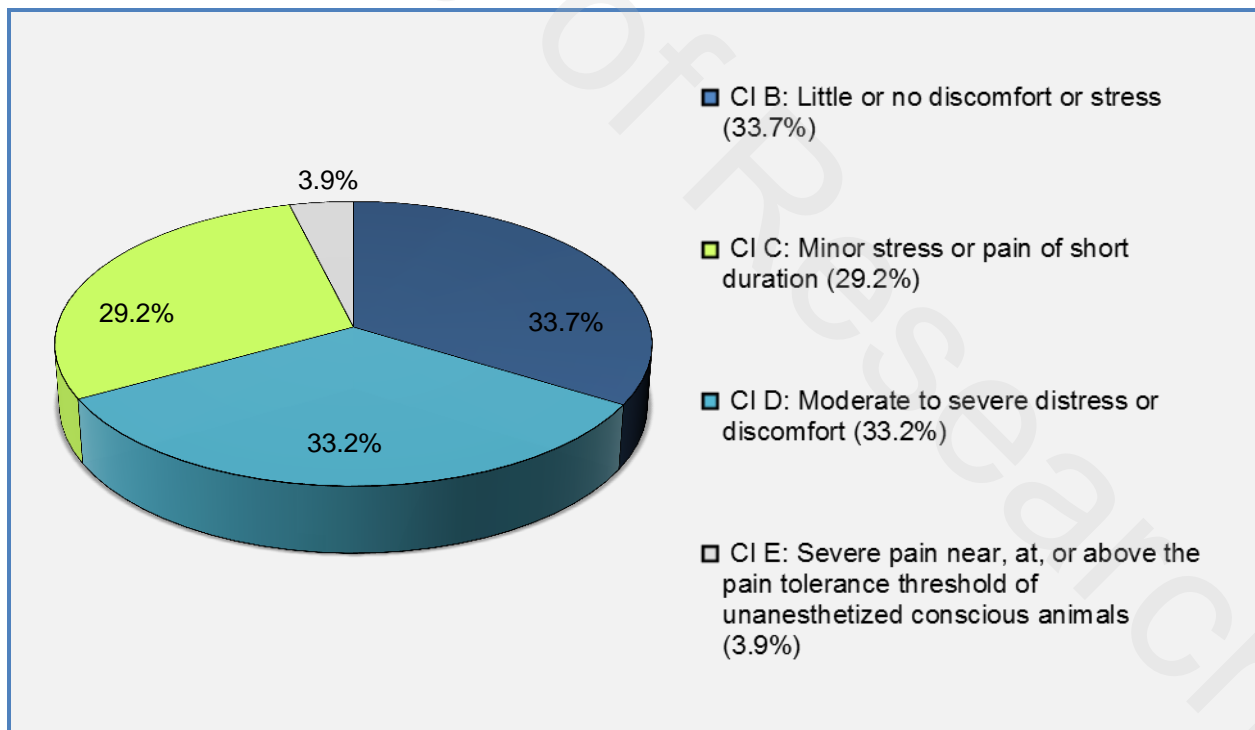
The categories of invasiveness are:

CI A   Experiments on most invertebrates or on live isolates

CI B   Experiments which cause little or no discomfort or stress

CI C   Experiments which cause minor stress or pain of short duration

CI D   Experiments which cause moderate to severe distress or discomfort

CI E   Procedures which cause severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious animals

Table 2: Number of animals used at CCAC-certified institutions for each category of invasiveness (CI) in 2011

CI	Number of animals used	Percentage (%) of total
B	1,123,750	33.7
C	972,889	29.2
D	1,108,177	33.2
E	128,873	3.9
Total	**3,333,689**	**100**

Data is collected and published for CI B through E. For more information about CI's, refer to the *CCAC policy statement on: categories of invasiveness in animal experiments.*

Figure 2: Proportion of animals used in science at CCAC-certified institutions for each category of invasiveness (CI) in 2011

CI B: Little or no discomfort or stress (33.7%)

CI C: Minor stress or pain of short duration (29.2%)

CI D: Moderate to severe distress or discomfort (33.2%)

CI E: Severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious animals (3.9%)

DATA BY PURPOSE OF ANIMAL USE (PAU)

The purposes of animal use (PAU) are:

PAU 1   Studies of a fundamental nature in science relating to essential structure or function

PAU 2   Studies for medical purposes, including veterinary medicine, that relate to human or animal disease or disorders

PAU 3   Studies for regulatory testing of products for the protection of humans, animals, or the environment

PAU 4   Studies for the development of products or appliances for human or veterinary medicine

PAU 5   Education and training of individuals in post-secondary institutions or facilities

For more information on PAUs, refer to the Instructions for Completion of the CCAC Animal Use Data Form (AUDF).

Table 3: Number of animals used at CCAC-certified institutions for each purpose of animal use (PAU) in 2011

PAU	Number of animals used	Percentage (%) of total
1	2,032,837	61.0
2	540,150	16.2
3	258,883	7.8
4	344,714	10.3
5	157,105	4.7
Total	**3,333,689**	**100**

Figure 3: Proportion of animals used at CCAC-certified institutions for each purpose of animal use (PAU) in 2011

- PAU 1: Fundamental studies (61%)
- PAU 2: Medical & veterinary purposes (16.2%)
- PAU 3: Regulatory testing (7.8%)
- PAU 4: Development of products (10.3%)
- PAU 5: Education & training (4.7%)