

# SUMMARY OF STATISTICS OF ANIMAL USE IN RESEARCH AND TEACHING

## VICTORIA

### REPORT NUMBER 28

1 JANUARY 2010 TO 31 DECEMBER 2010

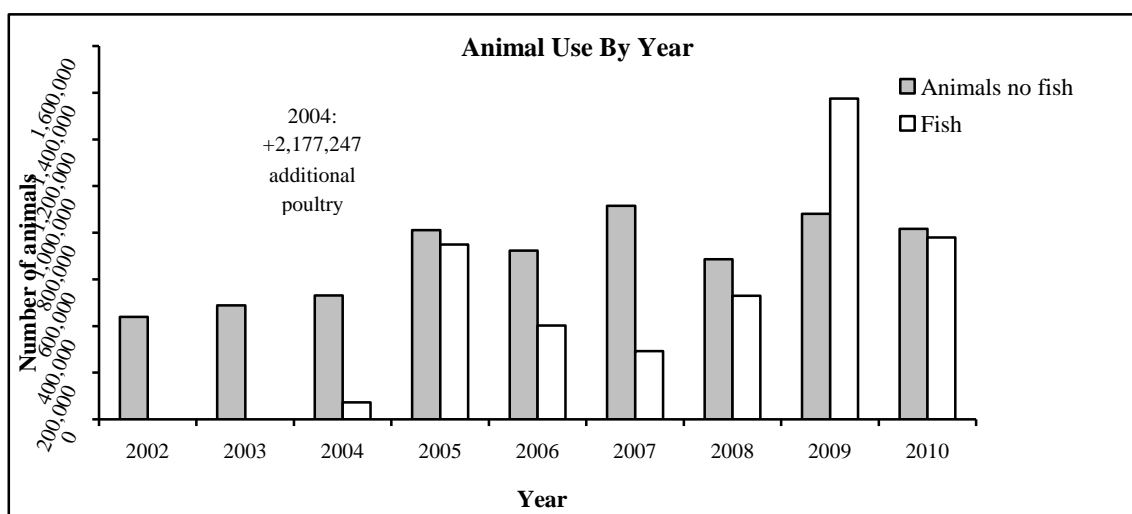
#### 1. INTRODUCTION

This document presents salient aspects of animal use in research and tertiary education in Victoria in graphical form. Information for 2010 is set within the context of previous years' data in order to demonstrate trends of usage through time. Comprehensive details of usage are available in the publication "Statistics of Animal Experimentation Victoria" for the appropriate years.

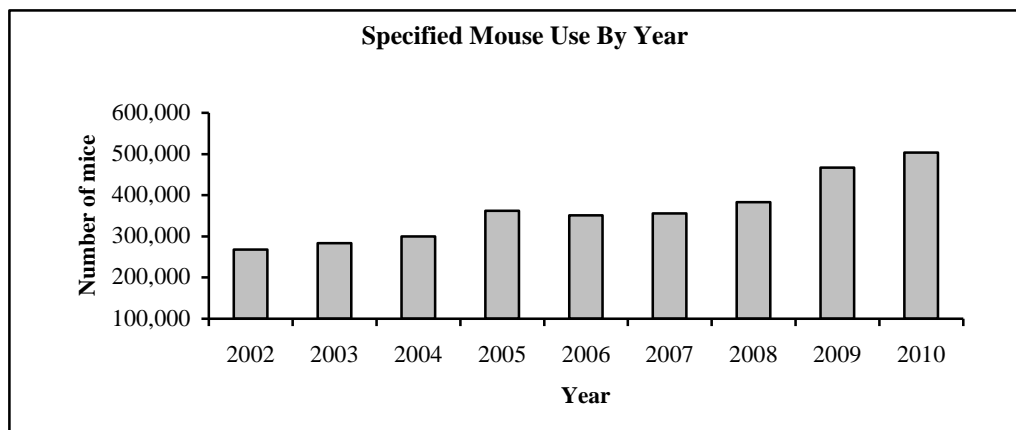
Data were collected from all institutions licensed to use animals in research and tertiary education in Victoria under the *Prevention of Cruelty to Animals Act 1986* (the Act). Animal usage within institutions is conducted on the basis of projects, where each project is run by a chief investigator and is approved by an Animal Ethics Committee. An "Animal Use Return" form that describes project methodologies and animal usage is required to be submitted each year for each project (*Regulation 100, Prevention of Cruelty to Animals Regulations 2008*).

Specified animal is a term defined in the Act that means mouse, rat, rabbit, or guinea pig other than a mouse, rat, rabbit bred in its native habitat, and non-human primate.

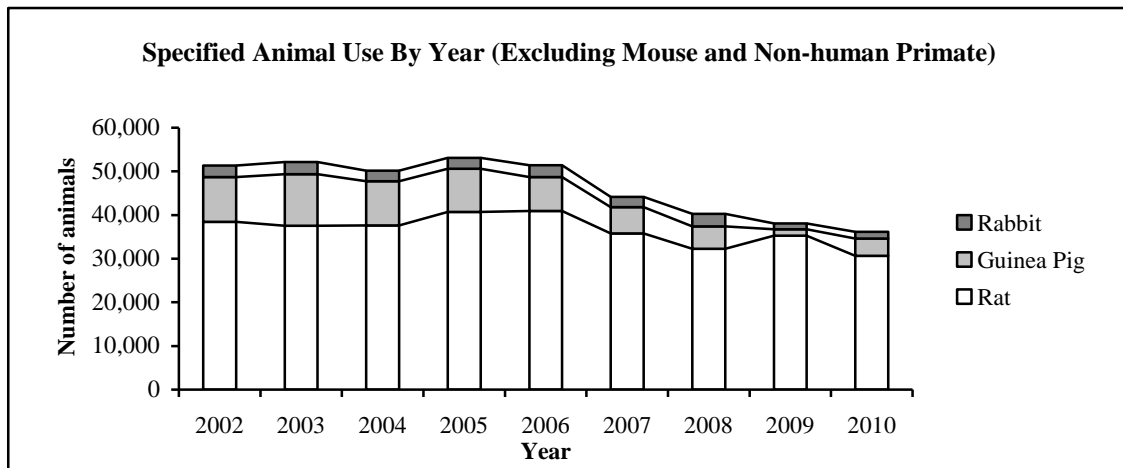
#### 2. SELECTED DETAILS OF NUMBERS OF ANIMALS USED



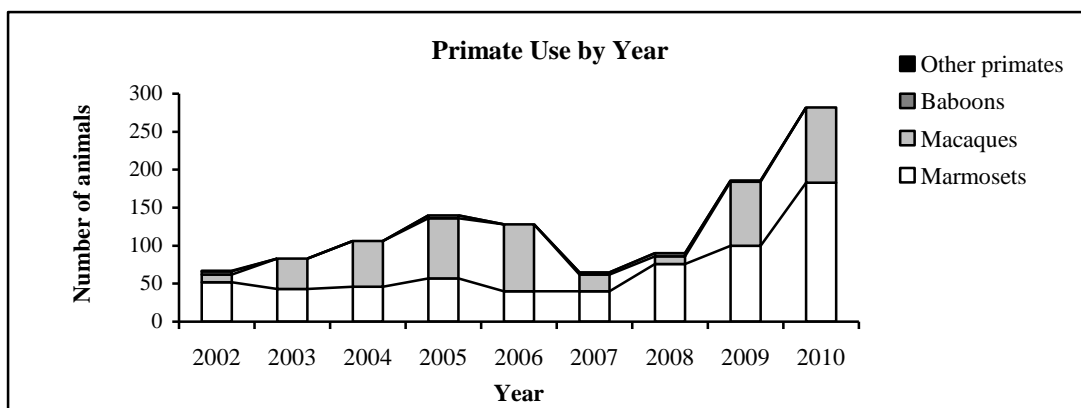
Graph 1. Total animal use, 2002 to 2010. The total number of animals used in 2010 was 1,595,375. Of these, 778,759 were fish, first counted in 2004.



Graph 2. Specified mouse use, 2002 to 2010. There were 503,934 specified mice used in 2010, compared to the long-term average of 346,289

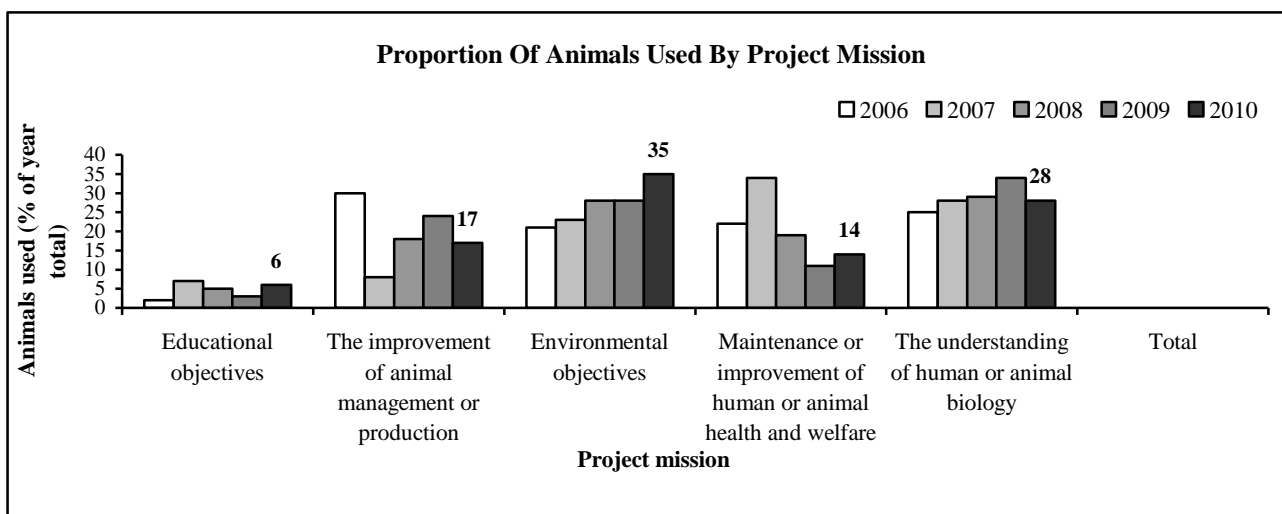


Graph 3. Specified animal use excluding mice and non-human primate, 2002 to 2010. A total of 36,157 specified rats, guinea pigs, and rabbits were used in 2010, compared to the long-term average of 47,592. These were composed of 30,694 rats (average of 37,326); 3,905 guinea pigs (average of 7,822); and 1,558 rabbits (average of 2,445).

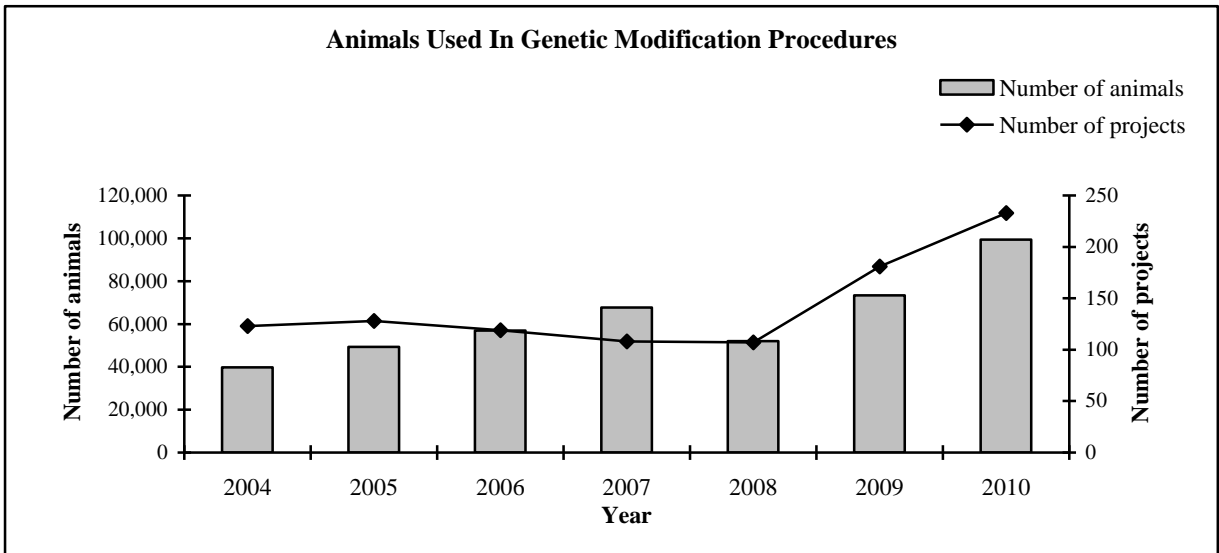


Graph 4. Primate use, 2002 to 2010. Two hundred and eighty two non-human primates were used in 2010, compared to a long-term average of 108. These were composed of 183 marmosets (average of 57), and 99 macaques (average of 49).

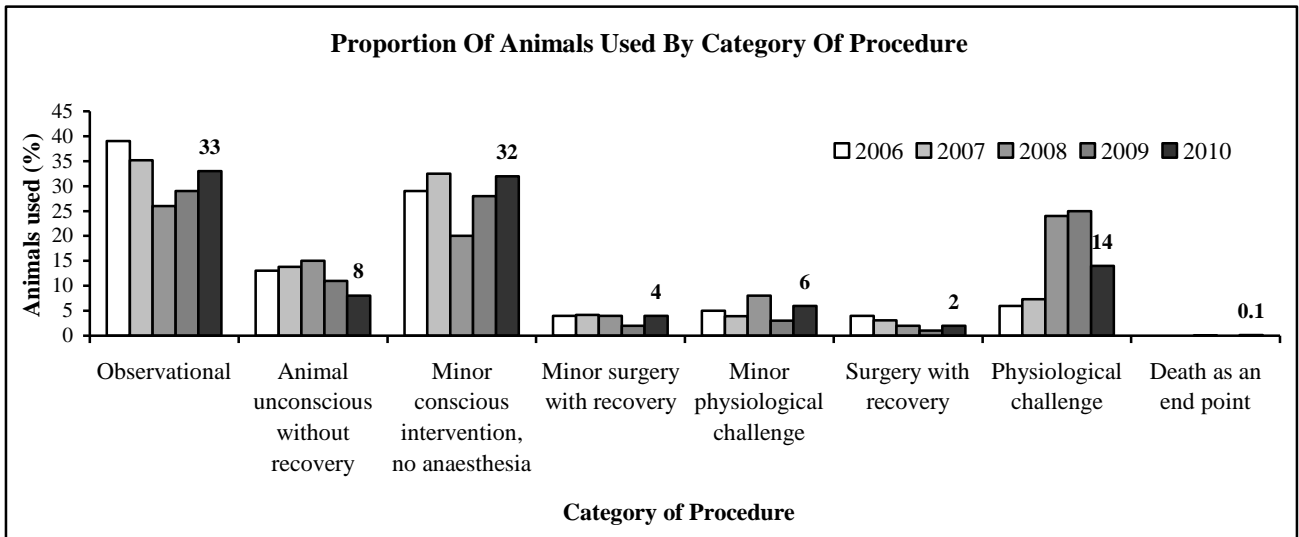
### 3. SELECTED ASPECTS OF ANIMAL USAGE



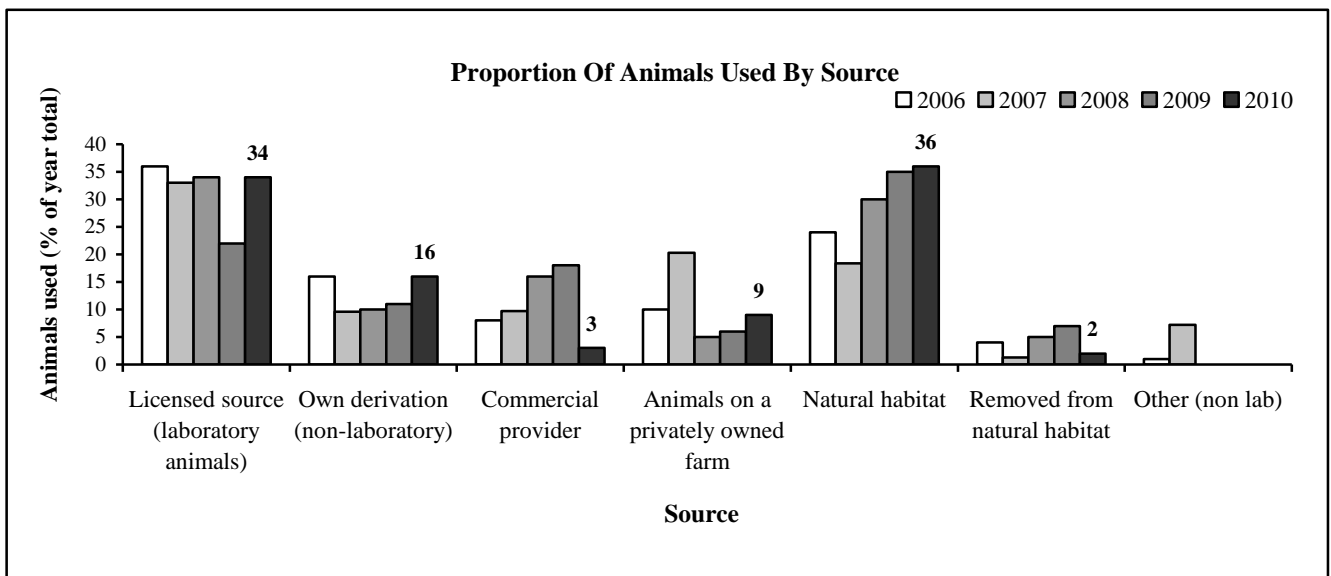
Graph 5. Animal use by project mission for the last 5 years (rounded).



Graph 6. Animals used in genetic modification procedures, 2004 to 2010. Two hundred and thirty three projects used 99,444 animals in genetic modification in 2010. Meaningful data are only available from 2004 due to a change in the way data were collected.



Graph 7. Animal use by category of procedure for the last 5 years (rounded). The large proportion of animals in physiological challenge procedures in 2008 and 2009 reflects relatively high impact analyses of large numbers of fish in commercial fisheries.



Graph 8. Animal use by source for the last 5 years (sources representing less than 1% of animal use not included).

	Year						
	2004	2005	2006	2007	2008	2009	2010
Number of animals in death as an end-point procedures	6,280	799	360	251	471	327	2,315
Number of projects using death as an endpoint procedures	9	6	3	4	10	9	8

Table 1. Numbers of animals used in death as an end-point procedures and projects with death as an end-point procedures, 2004 and 2010. Eight projects used two thousand, three hundred and fifteen animals in death as an end-point procedures in 2010. Data on this procedure type prior to 2004 are inaccurate due to inappropriate application of the “death as an end-point” term by licences.

#### 4. DETAILS OF SCIENTIFIC PROCEDURE LICENCES AND PROJECTS

	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of projects	1,981	2,078	2,030	2,176	2,458	2,386	2,358	2,455	2,673	2,931
Number of licences using animals	98	105	107	97	99	104	110	107	111	115
Number of projects per licence	20	20	19	22	25	23	21	23	24	25

Table 2. Number of projects and number of licences, 2001 to 2010 (licences and projects included only where animals were used).

	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of animals used	441,256	439,133	488,808	2,780,290 (603,043)	1,560,340	1,125,487	1,207,360	1,216,393	2,255,076	1,595,375
Number of licences using animals	98	105	107	97	99	104	110	107	111	115
Number of animals per licence	4,503	4,182	4,568	28,663 (6,217)	15,761	12,066	10,976	11,368	20,316	13,873

Table 3. Number of project animals used and number of licences, 2001 to 2010 (licences included only where animals were used). Figures in parentheses exclude the aberrant poultry projects in 2004.

	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of animals used	441,256	439,133	488,808	2,780,290 (603,043)	1,560,340	1,125,487	1,207,360	1,216,393	2,255,076	1,595,375
Number of projects	1,981	2,078	2,030	2,176 (2,175)	2,458	2,386	2,358	2,455	2,673	2,931
Number of animals per project	223	211	241	1,278 (277)	635	472	512	495	844	544

Table 4. Number of project animals used and number of projects, 2001 to 2010 (projects included only where animals were used). Figures in parentheses exclude single poultry projects in 2004.

#### 5. SPECIFIED ANIMALS IN BREEDING COLONIES

Type of Animal	Non-GM animals						GM animals					
	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008	2009	2010
Guinea pigs	2,147	2,604	3,638	1,142	1,087	1,153						
Macaques	142	159	203	341	225	243						
Marmosets	60	173	159	135	166	177						
Mice	262,645	261,697	237,246	281,875	344,823	360,185	212,094	333,266	389,632	461,745	490,962	531,098
Rabbits	741	638	527	504	515	445			370			
Rats	29,893	31,391	33,407	42,558	56,993	52,786	2,388	1,031	13,120	9,304	1,923	1,146
<b>Total</b>	<b>295,628</b>	<b>296,662</b>	<b>275,180</b>	<b>326,555</b>	<b>403,809</b>	<b>414,989</b>	<b>214,482</b>	<b>334,297</b>	<b>394,201</b>	<b>471,049</b>	<b>492,885</b>	<b>532,244</b>

Table 5: Specified animals in breeding colonies for scientific procedures in 2005 and 2010. 2005 was the first year for which data on specified animal breeding colonies were collected. ,