A Summary of Rabies in Massachusetts, 2006 Massachusetts Department of Public Health

The following report summarizes data collected on animal specimens sent to the State Laboratory Institute for rabies testing in 2006. A cumulative report summarizing rabies testing results from 1992-2002 and annual reports for 2004 and 2005 are available on the MPDH rabies website at www.state.ma.us/dph/cdc/epii/rabies/rabies.htm.

Number of Submissions and Positive Results by Species

In 2006, 2,910 specimens were submitted to the State Laboratory Institute (SLI) for rabies testing. Of these specimens, 232 tested positive for rabies. **Table 1** illustrates positive animals in 2006 by species. Skunks and raccoons accounted for 75% of all positive animals. The percentage of raccoons testing positive has increased since 2004. Enhanced surveillance of raccoons continued in Cape Cod throughout 2006. However, the rabies virus diminished the raccoon and skunk populations on Cape Cod leading to fewer submissions in 2006.

Table 1. Number of Submissions, Positive Results, and Percent Positive by Species (sorted from highest to lowest by # of positive results), 2006					
Animal	Number Submitted	Number Positive	% Positive		
Raccoon	300	135	45%		
Skunk	154	40	26%		
Bat	756	34	4%		
Cat	952	12	1%		
Fox	52	9	17%		
Coyote	12	1	8%		
Otter	1	1	100%		
Dog	400	0	0%		
Woodchuck	50	0	0%		
Other	233	0	0%		
Total	2910	232	8%		

Number of Submissions and Positive Results by Year

As **Table 2** shows, in 2006 there were fewer animals testing positive than in each of the previous 2 years. This decline, in part, reflects a reduction in animals submitted from Cape Cod. Decreased animal populations, and a more educated population on the topic of rabies likely contributed to this decline.

Table 2. Number of Submissions, Positive Results, and Percent Positive by Year					
Year	Number Submitted	Number Positive	% Positive		
1992	1079	57	5%		
1993	3971	720	18%		
1994	4532	735	16%		
1995	3438	400	12%		
1996	3005	115	4%		
1997	3128	282	9%		
1998	3938	498	13%		
1999	3270	226	7%		
2000	3310	276	8%		
2001	3346	280	8%		
2002	3137	304	10%		
2003	2983	216	7%		
2004	3479	327	9%		
2005	3388	329	10%		
2006	2910	232	8%		
Total	48914	4997	10%		

Number of Submissions and Positive Results by Month

As **Table 3** shows, in 2006 the highest numbers of submissions occurred during June, July and August. The lowest numbers of submissions occurred in February and December.

Table 3. Number of Submissions, Positive Results, and Percent Positive by Month, 2006				
Month	Number Submitted	Number Positive	Percent Positive	
January	159	18	11%	
February	145	8	5%	
March	194	33	17%	
April	213	35	16%	
May	235	22	9%	
June	316	17	5%	
July	328	13	4%	
August	575	25	4%	
September	252	18	7%	
October	166	16	10%	
November	197	14	7%	
December	130	13	10%	
Total	2910	232	8%	

Number of Submissions and Positive Results by County

In 2006, each of the 14 counties in Massachusetts submitted at least one animal for rabies testing, and all counties, except Nantucket and Dukes, had at least one positive animal (See **Table 4** below). Middlesex County submitted the highest number of animals (n=514), while Barnstable County had the highest number of animals test positive (N=75), as well as the highest proportion of submitted animals testing positive (29%).

Table 4. Number of Submissions, Positive Results, and Percent Positive by County, 2006					
County	Number Submitted	Number Positive	Percent Positive		
Barnstable	261	75	29%		
Berkshire	71	12	17%		
Bristol	241	25	10%		
Dukes	6	0	0%		
Essex	303	16	5%		
Franklin	67	6	9%		
Hampden	185	11	6%		
Hampshire	60	1	2%		
Middlesex	514	33	6%		
Nantucket	1	0	0%		
Norfolk	326	14	4%		
Out of State	34	0	0%		
Plymouth	238	16	7%		
Suffolk	258	3	1%		
Worcester	345	20	6%		
Total	2910	232	8%		