

The Rabies Reporter

MNR Publication 51709

Volume 20, Number 1

Winter 2009



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The Rabies Reporter, a scientific newsletter about current issues in rabies research and control, is a joint effort of the Rabies Research Unit of the Ontario Ministry of Natural Resources; the Rabies Laboratory at the Ottawa Laboratory (Fallowfield) of the Canadian Food Inspection Agency; and the Ontario Ministry of Health and Long-Term Care. Articles for future issues will be welcomed by the editor. The Rabies Reporter is not refereed, and should not be cited in papers intended for refereed journals. Send contributions, letters and inquiries to:

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ISSN (print): 1186-8961
ISSN (pdf): 1705-2106

Rabies in the First Quarter New All Time Low

This year marks the 20th year of the *Rabies Reporter*. It also coincides with two decades of large-scale rabies control operations in Ontario.

Since this is the 20th year of the *Rabies Reporter*, let's take a look at how much things have changed in the past two decades. In 1989, there were 566 cases during the first quarter alone. There was a total of 1,870 cases for the entire year. Of those cases, 1,398 were either rabid skunks (507) or foxes (891). That's quite a change from where we are now.

There's really not much I can say about the rabies cases to date for 2009.

There were only four rabies cases during the first three months of 2009 which is a new record. Previously, the

lowest number of cases during the first quarter of any year was in 2006 when there were 11. The average number of cases during the first three months for the past decade is 25.

Of the four confirmed cases, three were rabid sheep and one was a rabid fox. The rabid sheep were all from the same farm in Waterloo Region and probably all were exposed to the same rabid animal. The rabid fox was from Bruce County. As you may recall, Waterloo and Perth counties were the focus of terrestrial rabies cases in 2008 so it is not surprising to find most of the cases there again this year.

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New York State 2008 Annual Rabies Summary

The Wadsworth Center's Rabies Laboratory diagnosed 498 rabid animals out of 9,345 animals tested (5.3%) in 2008. The number and percentage positive for each species were: 263 raccoons (15.2%), 112 bats (2.6%), 63 skunks (24.2%), 24 cats (1.6%), 13 gray foxes (31.7%), 7 red foxes (11.1%), 6 bovine (9.6%), 4 woodchucks (4.2%), 2 deer (1.9%), 1 horse (2.6%), 1 dog (0.1%), 1 rabbit (5.0%), and 1 coyote (8.3%).

The number of specimens tested in 2008 is close to the average tested for the previous decade, approximately 9,000 animals per year, and this plateau of specimen submission is consistent with widespread enzootic raccoon and bat rabies throughout New York State.

In 2008, raccoon rabies was reported in 49 counties, and bat rabies was reported in 44 New York counties.

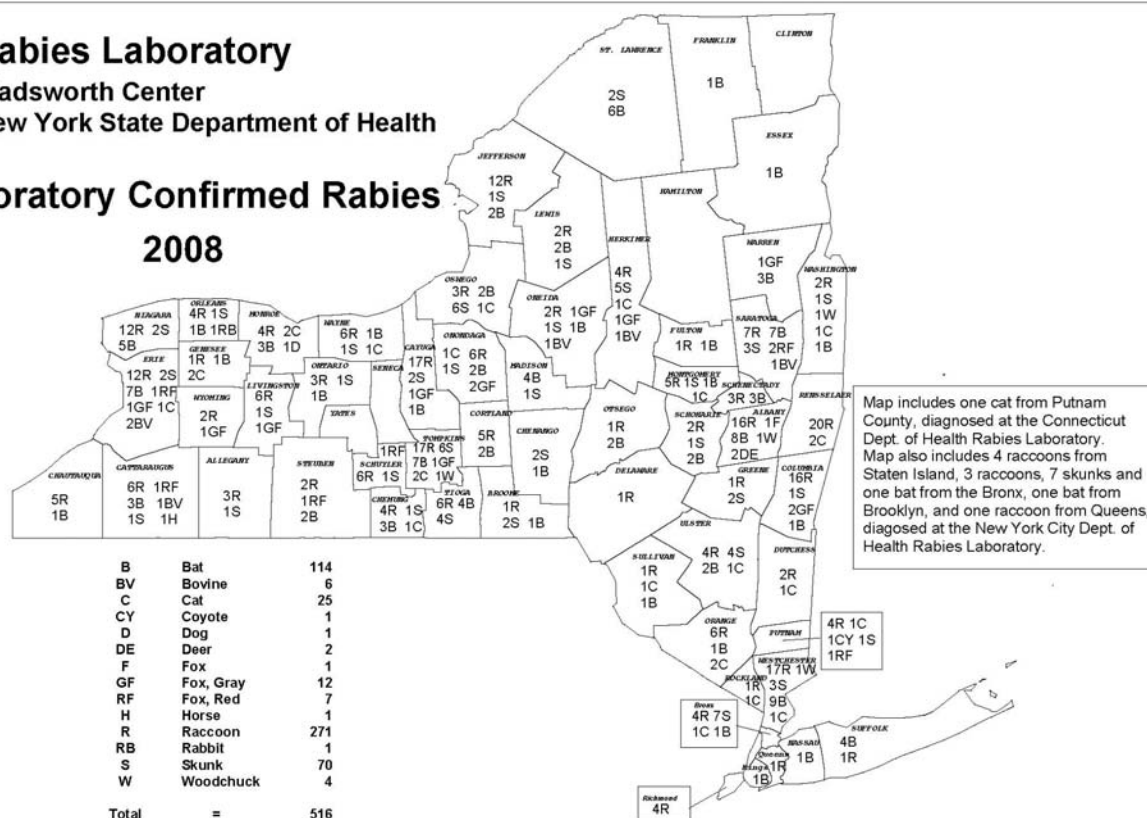
The laboratory continued to test a wide variety of animal species this year. There were 50 different species of animals tested, and wild animals represented the majority of submissions (6,956 or 74.4 %) compared to domestic animals (2,389 or 25.6%). The number and percentage of animals tested in 2008 were: 4,357 bats (46.6%), 1,720 raccoons (18.4%), 1,478 cats (15.8%), 708 dogs (7.6%), 373 other wild species (3.8%), 260 skunks (2.8%), 240 rodents and lagomorphs (2.5%), 109 foxes (1.2%), 103 deer (1.1%), 91 other domestic animals (0.93%), 62 cattle (0.66%), and 38 horses (0.40%). In 35%

Rabies Laboratory

Wadsworth Center

New York State Department of Health

Laboratory Confirmed Rabies 2008



of all animals tested, there was exposure to humans via a bite or contact with saliva or nervous tissue.

The large number of bats tested during 2008 reflects the response to the 1999 public health initiative to reduce the number of people receiving unnecessary post-exposure prophylaxis for exposures to bats. In the nine years since 1999, the rabies lab tested an average of 4,070 bats per year (4,357 in 2008). This is more than double the yearly average of 1,947 bats tested during the decade preceding 1999. The cost of the additional testing is greatly compensated for by preventing unnecessary post-exposure prophylaxis, which is very costly and in limited supply. In 2008 alone, the laboratory tested 1,811 bats that had contacts with humans, and over 97% of these bats were negative for rabies. Thus, this testing prevented 1,768 unnecessary post-exposure prophylaxes and accurately confirmed rabies exposure and resulted in treatment for 43 in-

dividuals.

The laboratory tested seven different bat species in 2008, and overall 2.6% of all bats tested were diagnosed with rabies virus. The number and percentage positive for rabies virus varied depending on the bat species: 98 of 3,158 big brown bats (3.1%), 6 of 918 little brown bats (0.65%), one of 13 silver-haired bats (7.7%), 0 of 15 red bats, 1 of 176 unidentified (0.56%), 5 of 6 hoary bats (83.3%), 1 of 64 northern long-eared bat (1.5%) and 0 of 8 eastern pipistrelle bats.

Other activities of the Wadsworth Center's Rabies Laboratory included serology and virus typing. The laboratory tested 1,529 human sera for rabies virus neutralizing antibody. These tests generally are performed to determine the need for booster vaccinations for individuals wishing to maintain current rabies pre-exposure vaccination status. The laboratory also examined 3,003 raccoon sera for rabies antibody in support of wildlife

oral rabies vaccination programs (ORV). The laboratory performed 88 virus-variant typing assays using a panel of monoclonal antibodies directed against the rabies virus nucleocapsid protein. These analyses further our understanding of rabies epidemiology in the state.

During 2008, the Rabies Diagnostic Laboratory at the New York City Department of Health and Mental Hygiene examined 734 specimens: 315 raccoons, 178 cats, 80 dogs, 69 opossum, 49 bats, 34 skunks, 6 muskrats, 2 squirrels and 1 monkey. Among these animals 19 (2.6%) were positive for rabies, including 9 raccoons, 1 cat, 7 skunks and 2 bats.

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Animal Rabies Report: January to March 2009

Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region	#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative	
		09	08		09	08		09	08		09	08		09	08		09	08		09	08		09	08			
Southern																											
Wentworth													1											0	0	1	
Haldimand-Norfolk																								0	0	0	
Brant																								0	0	0	
Niagara																								0	0	0	
Elgin																								0	0	0	
Oxford																								0	0	0	
Middlesex																								0	0	0	
Lambton																								0	0	0	
Kent																								0	0	0	
Essex																								0	0	0	
Northern																											
Muskoka																								0	0	0	
Parry Sound																								0	0	0	
Nipissing																								0	0	0	
Sudbury																								0	0	0	
Cochrane																								0	0	0	
Timiskaming																								0	0	0	
Algoma																								0	0	0	
Thunder Bay																								0	0	0	
Rainy River																								0	0	0	
Kenora			1											1										0	0	1	
Regional Totals																											
Eastern	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Central	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Western	1	1	0	0	0	0	0	0	8	0	0	0	0	1	0	0	1	0	0	0	3	3	5	4	4	15	
Southern	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
Northern	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Totals	1	1	1	0	0	0	0	0	8	0	0	0	0	2	0	0	2	0	0	0	3	3	5	4	4	18	

Notes for this quarter:

All livestock cases for this quarter were sheep.

