Ministry of Natural Resources

Ontario

Natural. Valued. Protected.

The rabies reporter

MNR Publication 51709 Volume 24, Number 2

April - June 2013

Rabies cases and plans for rabies control

Beverly Stevenson, Ministry of Natural Resources

There were five confirmed rabies cases during the second quarter bringing the total to date to six. This is down from 2012 when there 12 cases during the first half of the year.

Of the five cases, four occurred in bats (one each in Durham, Elgin, Grey, and Middlesex counties). Five rabid bats to the end of June is moderately less than 2012 when there were nine cases during the same time period. The other case occurred in a puppy in the First Nations community of Kashechewan near James Bay. Although rabies cases are rarely reported from this area due to the low human population, rabies persists throughout Far Northern Ontario. It is only when rabies spreads into the northern communities that cases are reported.

Plans for 2013

As a result of the low incidence of reported rabies cases in Ontario during the past two years, the aerial baiting oral rabies vaccination (ORV) program will be reduced for 2013.

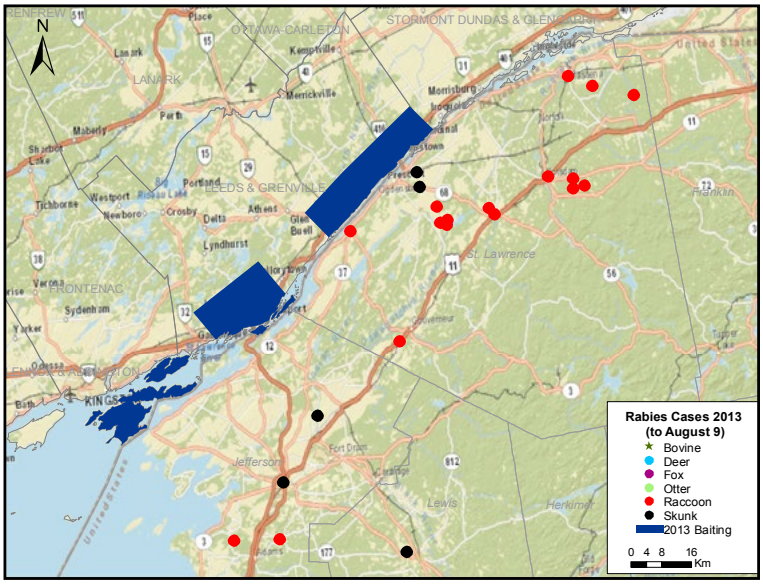


Figure 1. Location of oral rabies vaccination (ORV) zone in eastern Ontario and reported rabies cases in neighbouring New York State.

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:

The Rabies Reporter
Rabies Research & Development Unit
Ontario Ministry of Natural Resources
Trent University—DNA Bldg.
2140 East Bank Drive
Peterborough, ON K9J 7B8

Visit: Ontario.ca/rabies
ISSN (print): 1186-8961
ISSN (pdf): 1705-2106

Eastern Ontario

Due to the persistence of cases along the border area in New York State, MNR will distribute baits in mid-August in selected regions of eastern Ontario (Figure 1). Wolfe, Howe, Simcoe, and Hill Islands in the St. Lawrence River as well as two areas of the mainland will be baited during mid-August. Baits will also be distributed by hand in the city of Brockville. Both areas on the mainland surround bridges crossing the St. Lawrence. These areas pose the greatest risk for raccoon rabies re-entering Ontario due to the proximity of cases in New York, the additional movement corridor provided by the bridges, and the possibility of human-assisted movements of raccoons. Baits will be distributed at 75 baits/km^2 and a flight line spacing of 750 m.

Niagara Region

In late August, MNR staff will begin distributing baits in the area between the Welland Canal and the Niagara River (Figure 2). Baits will be distributed in rural areas by low-flying EC130 helicopter. This will be followed up by hand distribution of baits in urban areas.

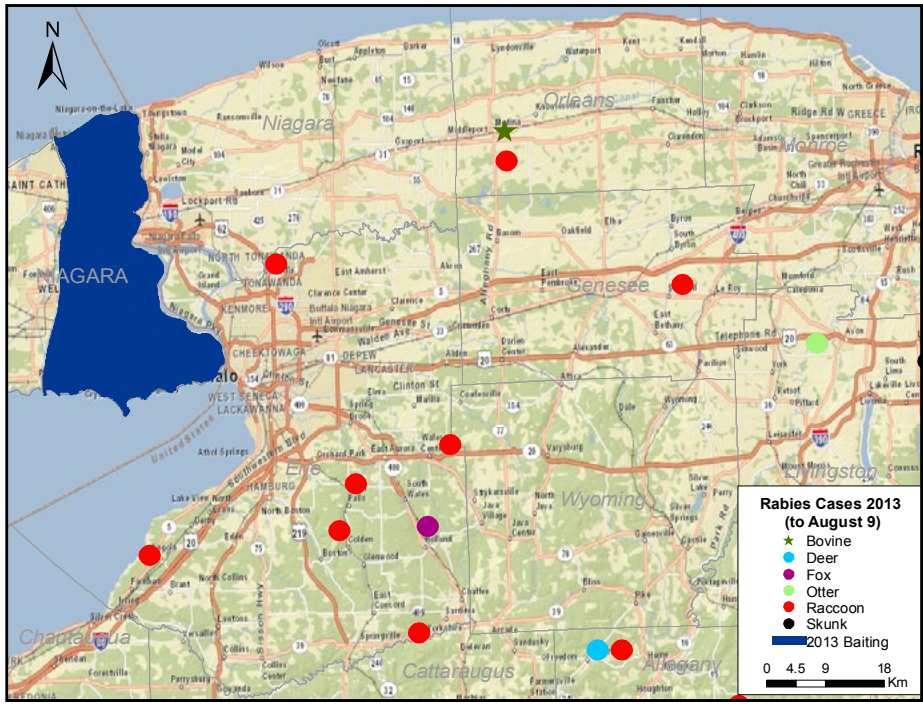


Figure 2. ORV zone in the Niagara area and map of 2013 rabies cases in adjacent New York State.

In rural areas, baits will be distributed at 75 baits/km^2 and a flight line spacing of 750 m. In urban areas, baits will be distributed at 300 baits/km^2. Approximately 80,000 baits will be distributed in the Niagara region in order to create a buffer of vaccinated raccoons which help prevent raccoon rabies from spreading into Ontario.

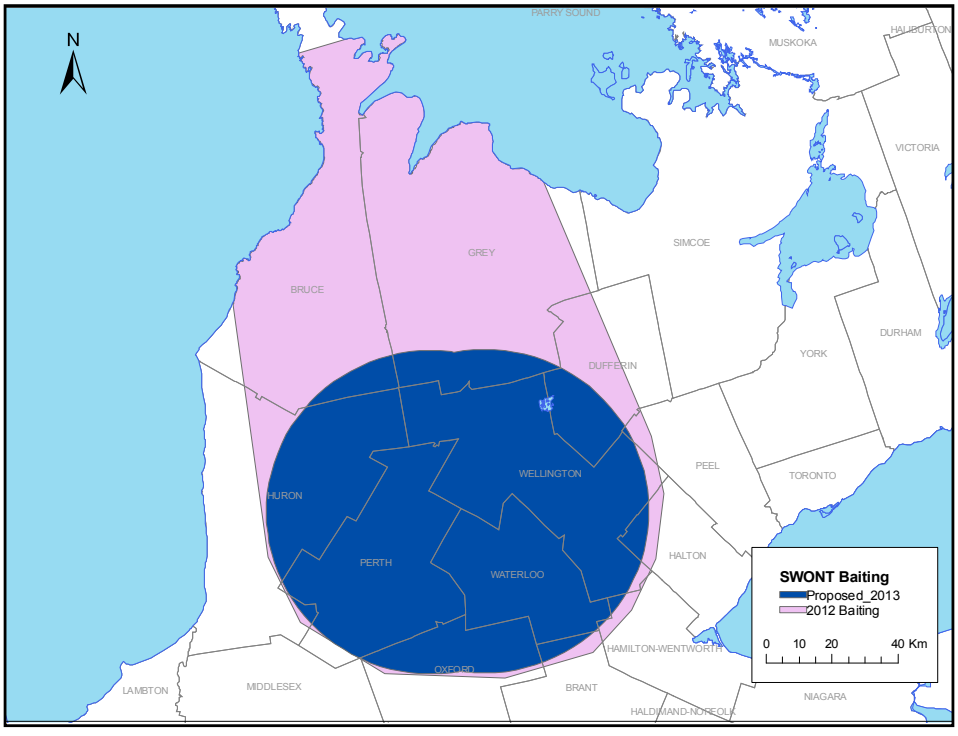


Figure 3. Comparison of ORV zones for 2013 and 2012. The proposed 2013 ORV zone is approximately 40% less than the 2012 ORV zone.

Southwestern Ontario

In mid-September, approximately 150,000 baits will be distributed in southwestern Ontario (Figure 3). Baits will be distributed at 20 baits/km^2 and a flightline spacing of 2.0 km. The oral rabies vaccination (ORV) zone is determined by mapping the *Ontario fox* strain rabies cases from the current and previous year and adding a 50 km buffer around the cases. Due to the proximity of the two cases in 2012 and the lack of confirmed cases so far in 2013, the ORV zone will be approximately 40% smaller in 2013 than what it was in 2012.

The ORV zone will be modified accordingly if there are any new confirmed *Ontario fox* strain rabies cases prior to the mid-September distribution of baits.

Ongoing Raccoon Rabies Research Collaboration between OMNR, Cornell University, New York State and USDA-APHIS

Chris Davies, Ministry of Natural Resources

For more than 20 years, the Ministry of Natural Resources (OMNR) has collaborated with Cornell University, New York State, and the United States Department of Agriculture (USDA-APHIS). This research collaboration on rabies control will continue in 2013 with plans to distribute baits along the New York-Ontario border.

As shown in Figure 1 and 2, raccoon rabies is enzootic along the American side of the border. This requires Ontario to remain vigilant for the reincursion of raccoon rabies into Ontario.

The bait distribution planned for August 2013 in neighbouring New York State is shown in Figures 4 and 5. These ORV zones will result in a 30+km ONRAB® zone along the Ontario-New York border. The field trial is designed to test the effectiveness of different bait densities, flight line spacings and vaccines.

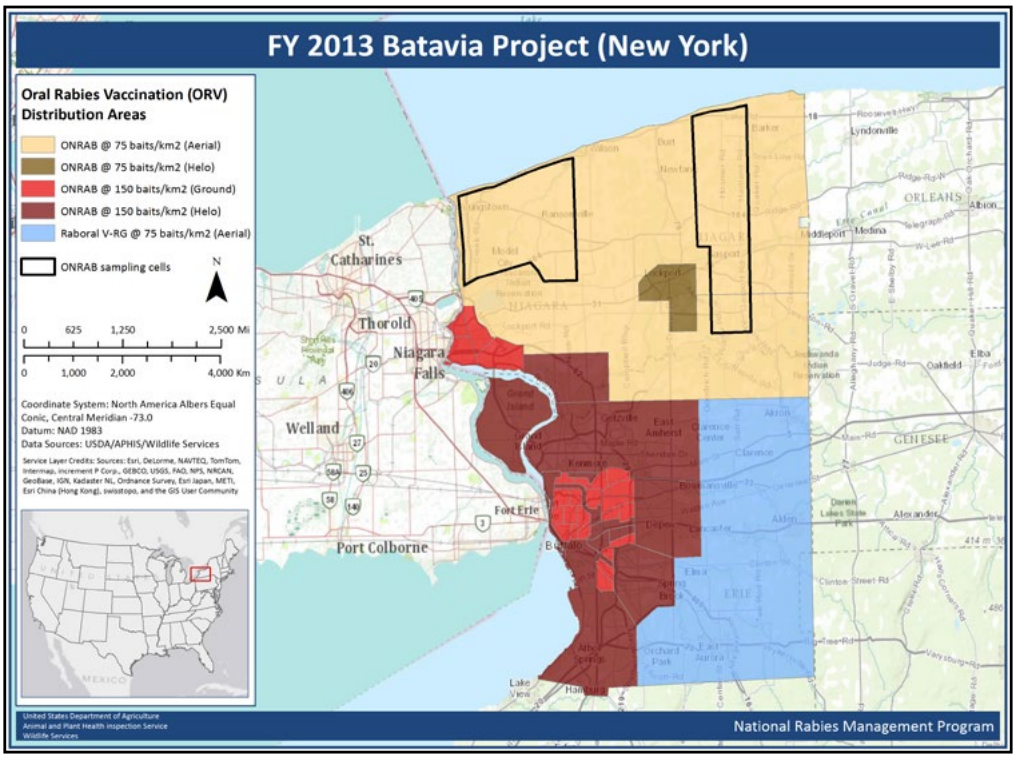


Figure 4. Proposed bait distribution in the Niagara area of New York State.

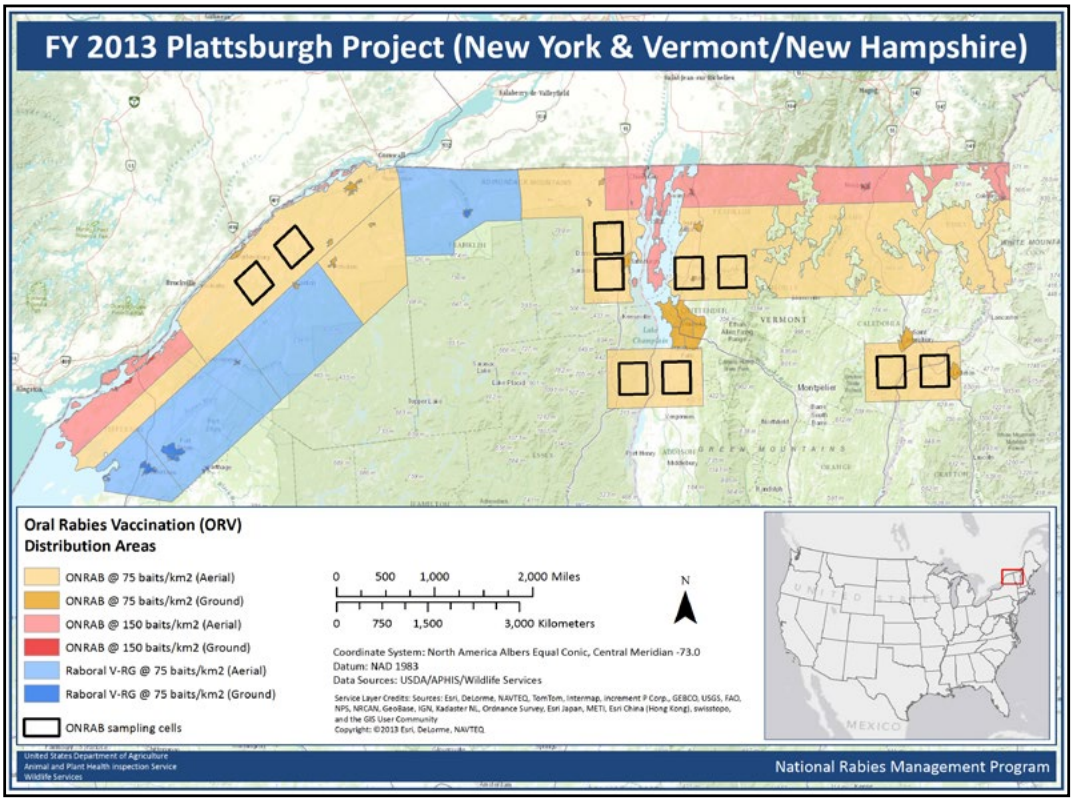


Figure 5. Proposed ONRAB® field trials in New York, Vermont, and New Hampshire.

This research is part of the ongoing collaboration to control and eliminate raccoon rabies from North Eastern North America as outlined in the North American Rabies Management Plan.

This is the third consecutive year that the made in Ontario ONRAB® baits will be distributed in the US. Data from the previous two field trials were very promising, resulting in the substantial expansion of ONRAB® zones along the US-Canada border this year.

24th International Conference on Rabies in the Americas (RITA)

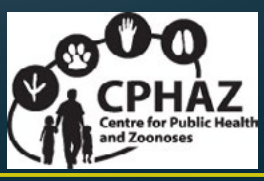
Rabies Elimination in a Changing World

October 27th to October 31, 2013
Hyatt Regency Hotel
Toronto, Ontario, Canada.

Early Bird Registration will close Sept. 5, 2013

www.rita2013.com

Hosted by the Centre for Public Health and Zoonoses, University of Guelph



Remembering Don Filliter (1959-2013)

Don Filliter was a consummate professional. His 28years of experience, 21 of which was with the MNR, qualified him to be very knowledgeable in all aspects of MNR resource and fire assignments. Beyond the MNR, Don had a stellar reputation because of his collaborations with the OPP and Hydro One. Nationally, he was well respected by the RCMP, Transport Canada and the Helicopter Association of Canada.

Don had a great sense of humour and his easy going, caring nature made him memorable and appealing to all who knew him. His leadership, vision and integrity will be missed dearly in the Ministry.

Don's true love was his family. He leaves behind his wife Suzanne and their children Michelle, Mark and William.

Farewell Pierre Canac-Marquis

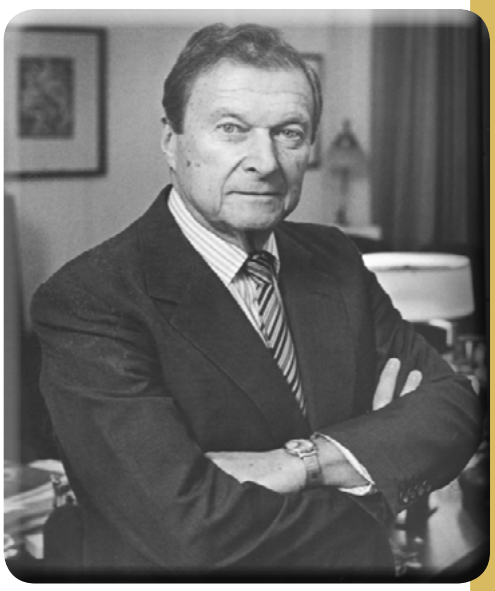
Pierre Canac-Marquis, an integral member of Quebec's raccoon rabies control program, is retiring from le Ministère des Ressources naturelles et de la Faune du Québec.

Pierre will be greatly missed by his colleagues across Canada and the United States. Pierre's hard work and dedication to the raccoon rabies control program helped make the program such a success in eliminating raccoon rabies from Quebec. Pierre's team leadership and collaboration skills made him a valuable asset to any project that he worked on.

Your friendly smile, your easygoing nature, and your professionalism will be missed by all who have worked with you Pierre.

Enjoy your retirement and good luck in your future endeavours!

Remembering Hilary Koprowski (1916-2013)



Hilary Koprowski, M.D., a world-renowned scientist, left an enduring legacy. Dr. Koprowski, was director of The Wistar Institute from 1957 to 1991. He built a prestigious research faculty by recruiting top biologists from around the world.

A distinguished virologist, Dr, Koprowski was a pioneer in the effort to develop the first oral polio vaccine. Under Dr. Koprowski's leadership, Wistar scientists developed the rubella vaccine and a new tissue culture-based rabies vaccine for humans that is more effective and less painful than the traditional Pasteur technique, and which is today's standard of care for people who have been exposed to rabies. Wistar researchers also developed a rabies vaccine for animals.

Dr. Koprowski and his colleagues developed and patented the first technology to produce monoclonal antibodies. Many of today's modern cancer drugs owe their conceptual basis to Koprowski's pioneering work.

Animal Rabies Report: April to June 2013

Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region		Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative	
	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12
Eastern																											
Stormont, Dundas & Glengarry																									**0**	**0**	**0**
Prescott-Russell																									**0**	**0**	**0**
Ottawa-Carleton																									**0**	**0**	**0**
Renfrew																									**0**	**0**	**0**
Lanark																									**0**	**0**	**0**
Leeds and Grenville																									**0**	**0**	**0**
Frontenac														1				1							**0**	**1**	**1**
Lennox & Addington																									**0**	**0**	**0**
Central																											
Hastings																									**0**	**0**	**0**
Prince Edward																									**0**	**0**	**0**
Northumberland																									**0**	**0**	**0**
Victoria																									**0**	**0**	**0**
Haliburton																									**0**	**0**	**0**
Peterborough															1										**0**	**0**	**1**
Durham													1	1											**1**	**1**	**0**
York Region																									**0**	**0**	**0**
Toronto															3										**0**	**0**	**3**
Simcoe																									**0**	**0**	**0**
Western																											
Peel																									**0**	**0**	**0**
Halton																									**0**	**0**	**0**
Dufferin																									**0**	**0**	**0**
Wellington									1																**0**	**0**	**1**
Waterloo															1										**0**	**0**	**1**
Perth																					1				**0**	**0**	**1**
Grey													1	1											**1**	**1**	**0**
Bruce																									**0**	**0**	**0**
Huron																									**0**	**0**	**0**

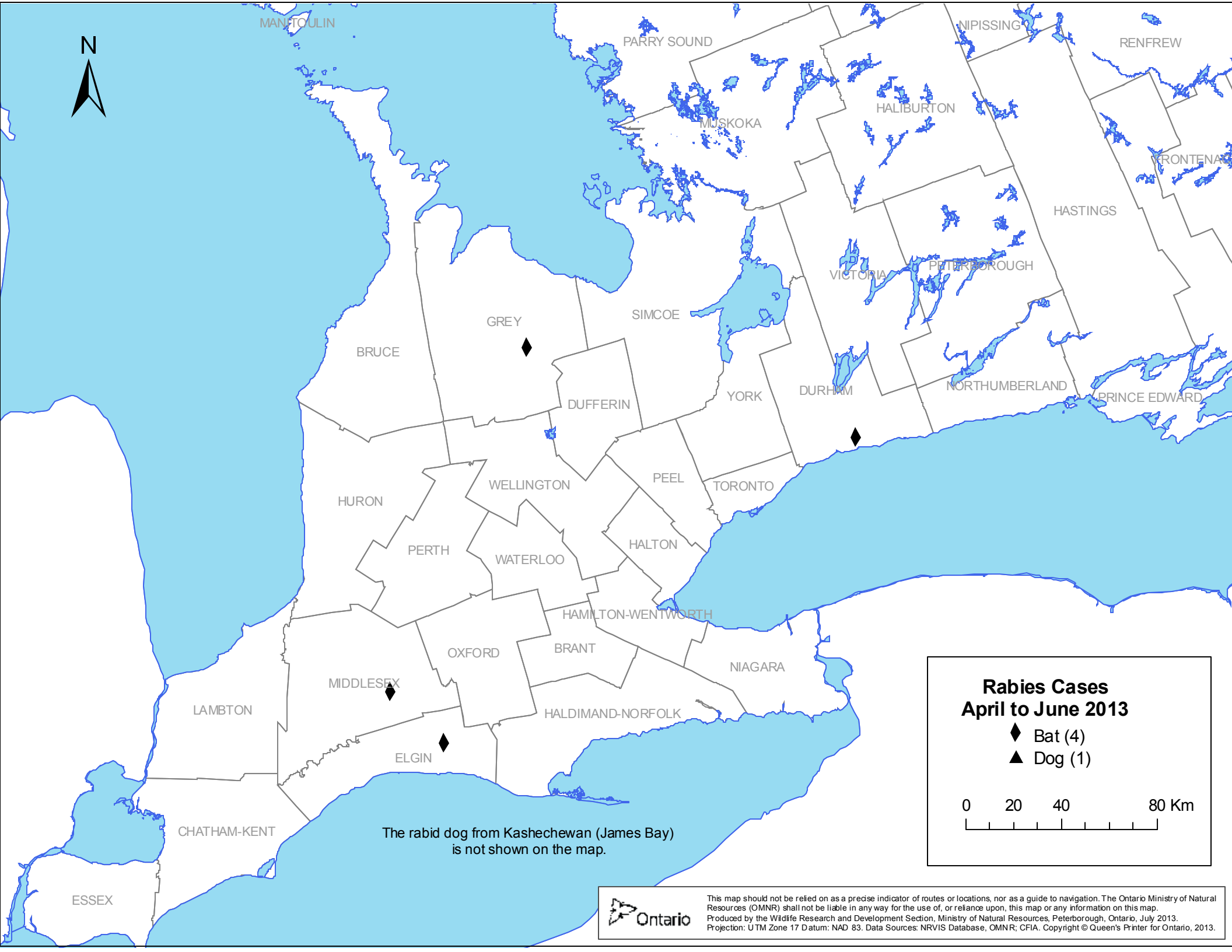
Animal Rabies Report: April to June 2013

Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region		Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative	
	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12	#	13	12
Southern																											
Wentworth																									**0**	**0**	**0**
Haldimand-Norfolk																									**0**	**0**	**0**
Brant															2										**0**	**0**	**2**
Niagara																									**0**	**0**	**0**
Elgin													1	1	1										**1**	**1**	**1**
Oxford																									**0**	**0**	**0**
Middlesex													1	1	1										**1**	**1**	**1**
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								**1**	**1**	**0**
Regional Totals																											
Eastern	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	**0**	**1**	**1**
Central	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	0	0	0	0	0	0	0	0	0	**1**	**1**	**4**
Western	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	**1**	**1**	**3**
Southern	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	**2**	**2**	**4**
Northern	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	**1**	**1**	**0**
Totals	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**5**	**9**	**1**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**5**	**6**	**12**

CFIA·ACIA

Notes for this quarter: All of the bats were big brown bats.

Ontario


N
MANITOULIN
PARRY SOUND
NIPISSING
RENFREW
HALIBURTON
MUSKOKA
FRONTENAC
HASTINGS
VICTORIA
PETERBOROUGH
GREY
SIMCOE
BRUCE
DUFFERIN
YORK
DURHAM
NORTHUMBERLAND
PRINCE EDWARD
WELLINGTON
PEEL
TORONTO
HURON
PERTH
WATERLOO
HALTON
HAMILTON-WENTWORTH
OXFORD
BRANT
NIAGARA
MIDDLESEX
LAMBTON
HALDIMAND-NORFOLK
ELGIN
CHATHAM-KENT
ESSEX
The rabid dog from Kashechewan (James Bay)
is not shown on the map.
Rabies Cases
April to June 2013
Bat (4)
Dog (1)
0 20 40 80 Km
Ontario
This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources (OMNR) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.
Produced by the Wildlife Research and Development Section, Ministry of Natural Resources, Peterborough, Ontario, July 2013.
Projection: UTM Zone 17 Datum: NAD 83. Data Sources: NRVIS Database, OMNR; CFIA. Copyright © Queen's Printer for Ontario, 2013.