

The rabies reporter

MNRF Publication 51709 Volume 26, Number 1

January - June 2015

The Rabies Reporter, a scientific newsletter about current issues in rabies research and control, is a joint effort of the Wildlife Research and Monitoring Section of the Ontario Ministry of Natural Resources and Forestry; 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
Wildlife Research and
Monitoring Section
Ontario Ministry of Natural
Resources and Forestry
Trent University—DNA Bldg.
2140 East Bank Drive
Peterborough, ON K9J 7B8

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

Rabies surveillance and control

Beverly Stevenson, Ministry of Natural Resources and Forestry

There were only 6 rabid bats in Ontario from January to June. This is up slightly from 5 bat cases during the same period in 2014.

It was very quiet on the rabies front in Ontario during the first 6 months of the year. This was very welcome news as all was not quiet elsewhere. A flurry of cases near the Ontario/Quebec/New York border was very disconcerting for all three jurisdictions (Figure 1).

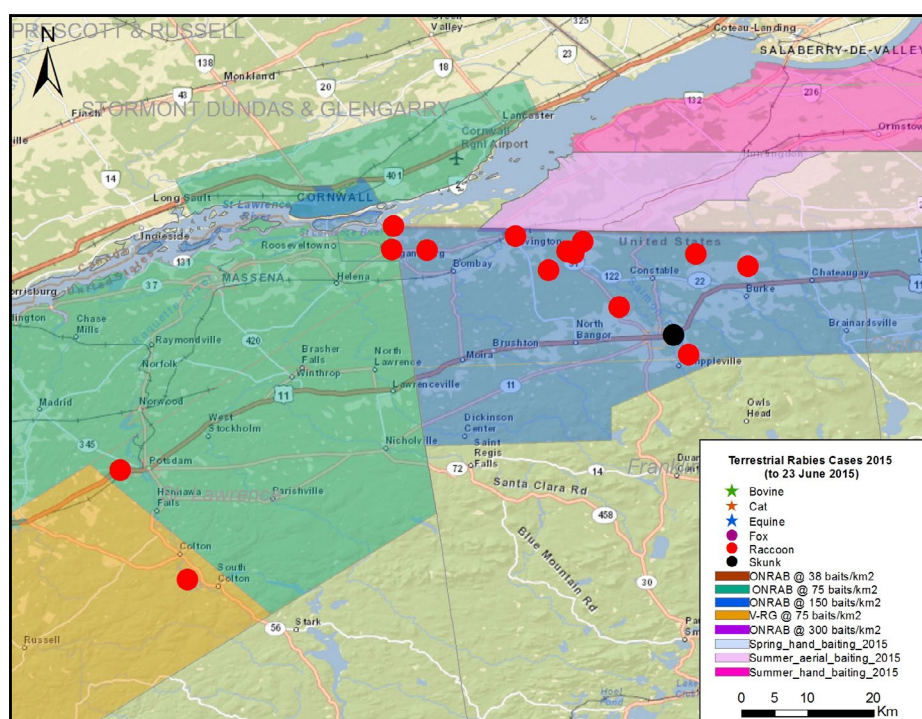


Figure 1. Location of rabies cases in New York near the Ontario border. Data courtesy of Wadsworth Lab, New York.

Franklin County, New York was the last county in New York to have a confirmed case of raccoon strain rabies - the first one occurred in 2014. Due to the low perceived threat of rabies in this area, Franklin County was not included in the US field trial of ONRAB® along the New York/Canada border which has been ongoing since 2013. In addition, the Akwesasne First Nation, which encompasses parts of Quebec, Ontario, and New York State, had not been baited on the Canadian side in several years. Quebec had not baited in the Akwesasne area for some time since the area had been considered lower risk than neighboring areas. Ontario had focussed rabies control efforts farther west along the St. Lawrence River near Brockville, closer to more recent cases in New York State.

The combination of an active outbreak so close to an area with an unvaccinated wildlife population was so concerning that all three jurisdictions implemented emergency rabies baiting procedures in early June. Akwesasne staff hand distributed baits on the Canadian portion of Akwesasne after a raccoon rabies case was discovered on St. Regis Island (Akwesasne), Quebec. The United States Department of Agriculture had already requested to do emergency baiting of Franklin County with ONRAB® baits prior to the discovery of this case. Unfortunately, their request did not include aerial baiting of US Akwesasne, but this will be included in their summer baiting plans.

Read more about this situation in the Quebec update in the following article.

Update of Québec 2015 Rabies Control Program

Marianne Gagnier, Ministère des Forêts, de la Faune et des Parcs

Since this spring, the Québec government has enhanced its surveillance and control activities following the discovery of rabid raccoons a few kilometres across the US border in Franklin County, New York.

Between March and June 2015, 13 rabid animals were detected in the area. On May 29, a case of raccoon rabies was confirmed in the Québec portion of the Akwesasne aboriginal reserve. A campaign to vaccinate wild animals against rabies had never been conducted in this area of Québec.

Following the discovery of this case, 2 100 ONRAB® vaccine baits were distributed by hand in mid-June, in collaboration with the Aboriginal and Ontario authorities. Another hand baiting may be done late August in the same area of the reserve. This case of rabies does not pose a more important threat to the rest of Québec than the current Franklin county outbreak. The habitat between Akwesasne and the Montérégie region is not conducive to raccoon and skunk movements.

Although no cases of raccoon rabies have been recorded elsewhere in Québec since 2009, there is a real risk of re-introduction, and rabies remains a fatal disease for humans. Surveillance and vaccination operations will continue to help ensure that the disease is not reintroduced into Qué-

bec. For this reason, increased surveillance efforts have been conducted near the outbreak and the oral rabies vaccination (ORV) plan has been adjusted to reinforce raccoon immunity along the border (Figure 3).

As in past years, a post ORV study should be conducted in October to assess the percentage of raccoons positive for rabies virus antibodies in the areas where ONRAB® baits were distributed.

About Quebec's 2015 plan...

- 11 300 km²: area covered by enhanced surveillance in Montérégie and Estrie regions
- 706 400: total of ONRAB® vaccine baits distributed, from April to September
- 6 900 km²: area covered by ORV operation (by plane and by hand)
- 332: total of dRIT tests done for raccoon rabies surveillance as of July 27
- 1: number of raccoon rabies cases since April 2009 (Akwesasne, Qc, May 29 2015)

For further information on the Québec rabies program, please contact Marianne Gagnier at marianne.gagnier@mffp.gouv.qc.ca / 418-627-8694 ext.7422.

Québec ORV plan 2015 and Akwesasne (QC) positive raccoon (May 29 2015)

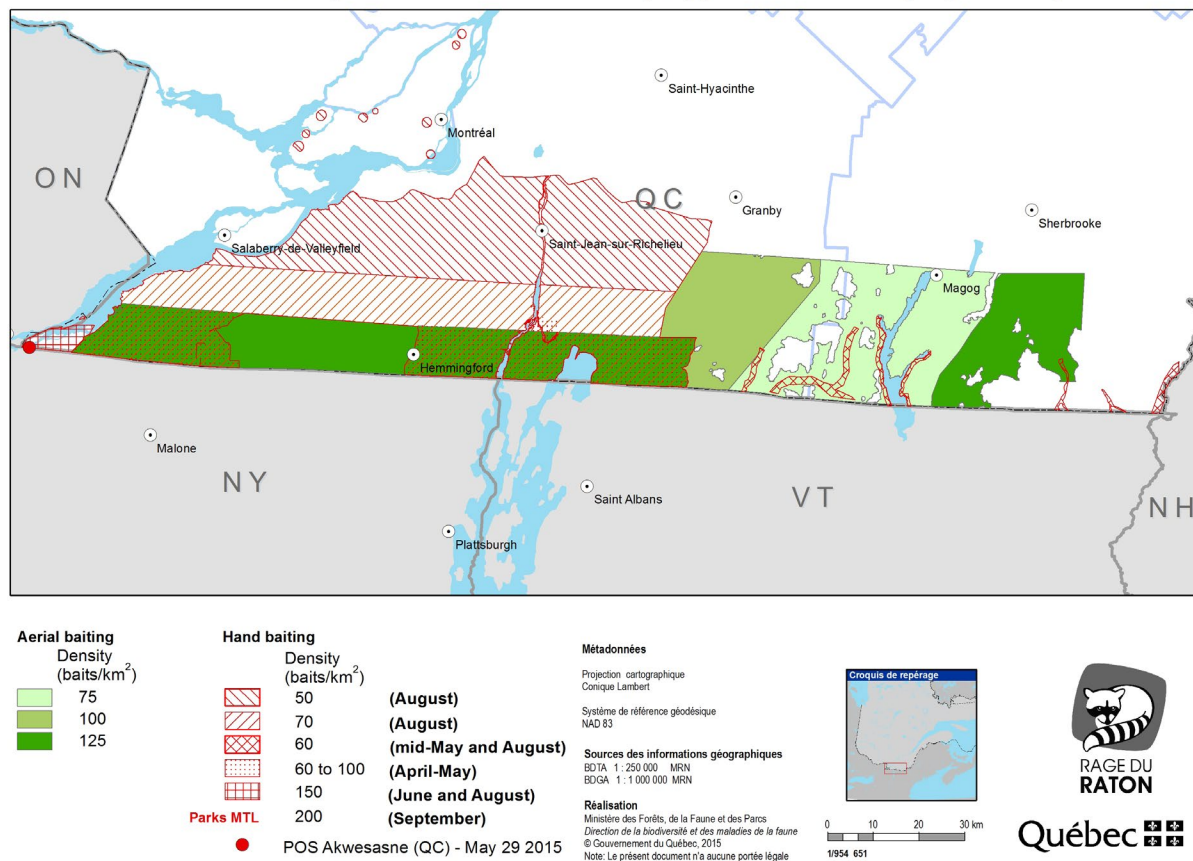


Figure 2. Rabies control operations within Quebec in 2015 and location of May 2015 rabies case.

Introducing Mike Allan, New Brunswick's rabies coordinator

Jim Goltz, Department of Agriculture, Aquaculture and Fisheries

New Brunswick is pleased to welcome Mike Allan as the province's Rabies Coordinator.

The Rabies Coordinator's role is to ensure that potential rabies incidents are handled in a coordinated manner, with a view to minimizing the risk for humans and domestic animals involved in the incidents, and to help prevent future incidents from occurring. Mike has over 20 years of experience with rabies control activities in Ontario in both urban and rural settings and was a former resident of Peterborough.

Mike began this position on August 4 and immediately put his expertise into action by capably coordinating the field operations for New Brunswick's oral rabies vaccination activities.



New Brunswick implements oral rabies vaccine program

Jim Goltz, Department of Agriculture, Aquaculture and Fisheries

In an effort to control the increasing numbers of raccoon variant rabies cases in southwestern New Brunswick, the province implemented an oral rabies vaccine program between August 20 and 27, utilizing ONRAB® vaccine baits.

Approximately 170,000 baits were distributed over an area measuring about 2,470 km² - the geographic area that was targeted was within 30 km of rabies cases that have been recorded since May 2014, when the current incursion of raccoon variant rabies was first detected in New Brunswick (figure 3). A fog bank along the Bay of Fundy coast created challenges for aerial baiting, but fortunately the fog lifted so baits could be distributed over almost all of the targeted area. The aerial component of the baiting was accomplished thanks to the expertise and capable assistance of the Ontario Ministry of Natural Resources and Forestry's Aviation Services

and Wildlife Research and Monitoring Section, and hand baiting activities were done by staff from New Brunswick's Department of Agriculture, Aquaculture and Fisheries and Department of Natural Resources.

Prior to launching the oral rabies vaccination program, 20 cases of rabies had been detected in raccoons and striped skunks in southwestern New Brunswick (figure 4). A few days before the aerial bait distribution was scheduled to commence, a rabid raccoon was found at Pennfield, about 20 km east of the nearest known location but still within the planned bait drop zone. In response to this case, flight lines were changed to expand the aerial bait drop zone eastward from the original planned area.

Since the bait distribution was completed, two additional cases of rabies have been detected in raccoons, one in St. Andrews, within an area that was

hand-baited. The other new case was in McAdam, York County, approximately 40 km to the north of the nearest known case. The McAdam case was New Brunswick's first case of raccoon variant rabies outside Charlotte County, and unfortunately is outside the area where vaccine baits had been distributed. Enhanced surveillance is being done in the McAdam area and appropriate control measures will be implemented.

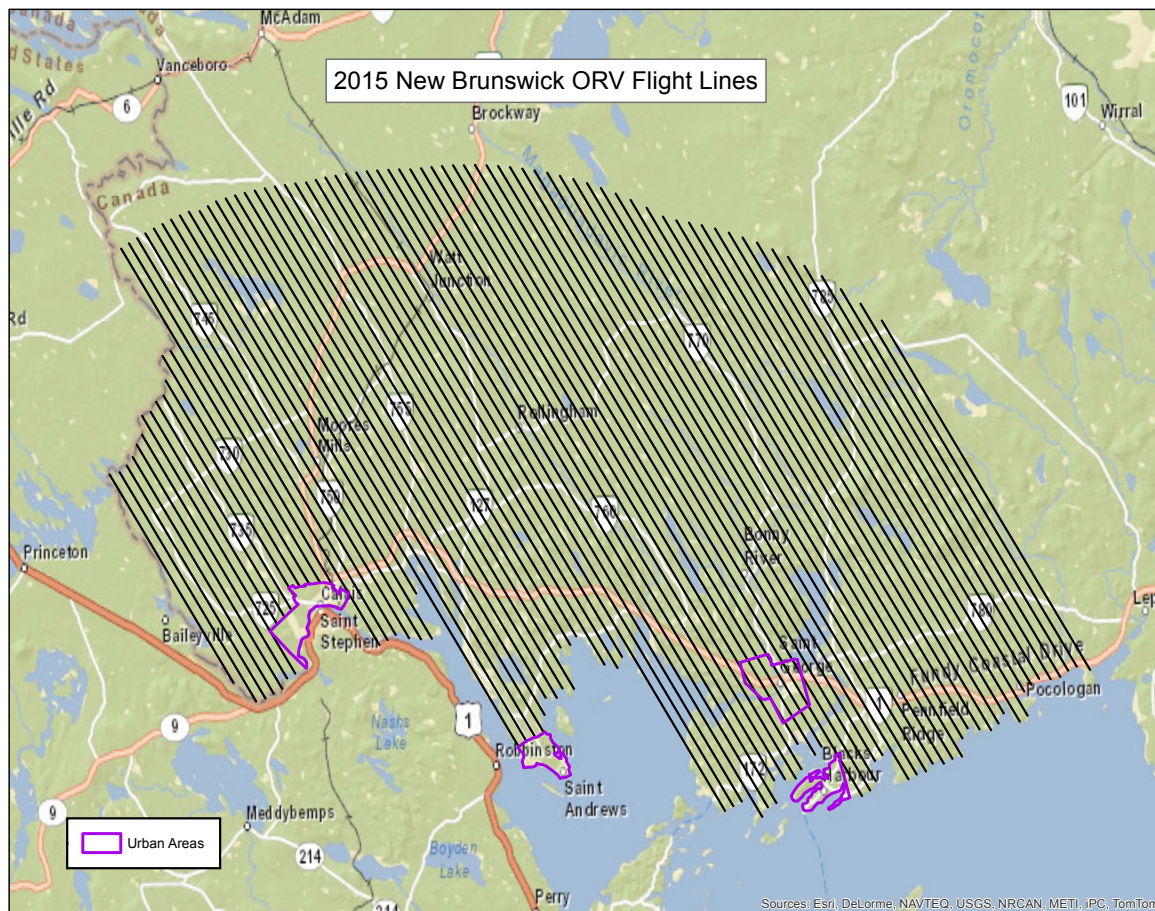


Figure 3. New Brunswick's ORV zone.

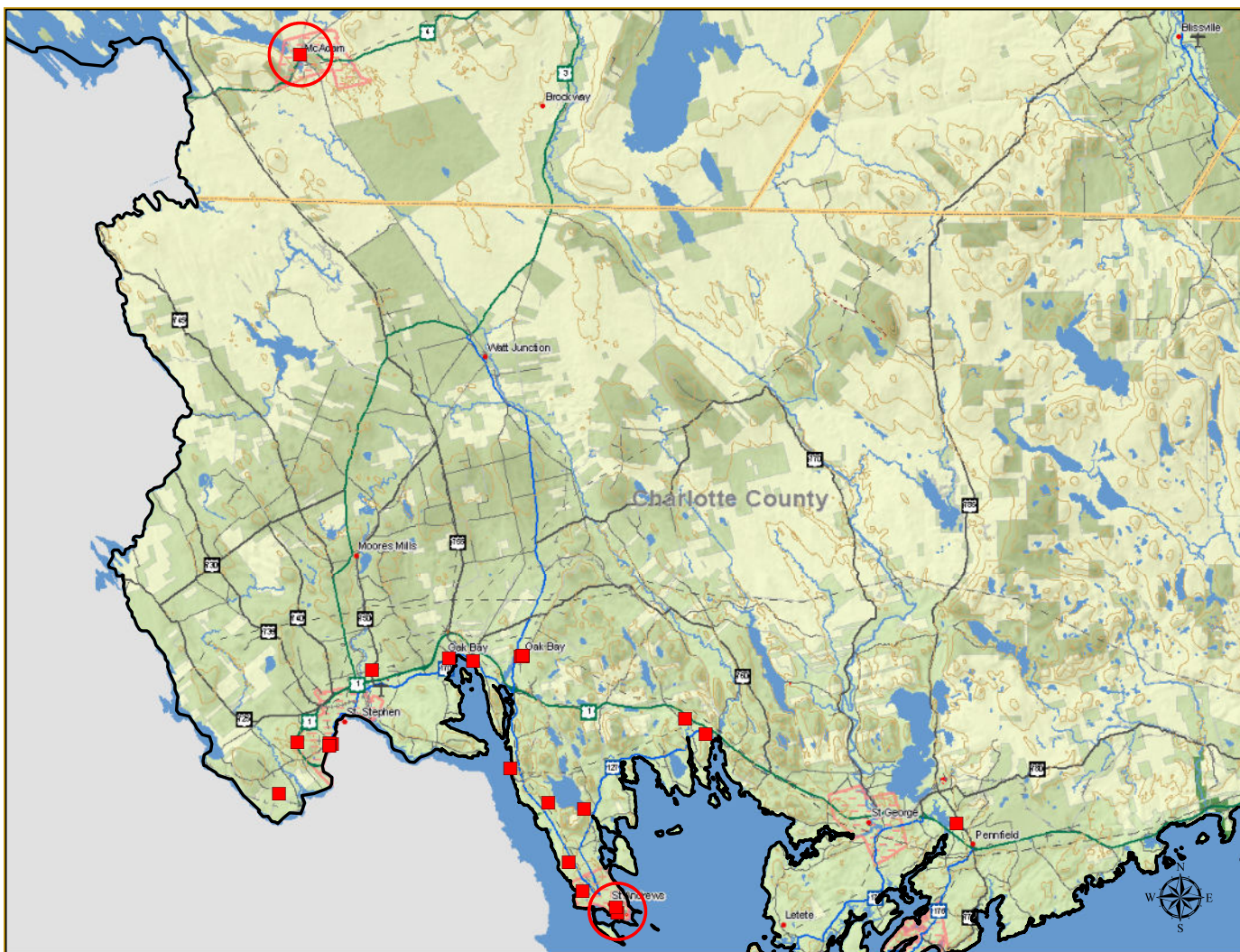


Figure 4. Location of rabies cases in New Brunswick. Map courtesy of Jon Cormier, Department of Natural Resources.

Mel Abelseth, one of the developers of ERA rabies vaccine, passes away

Dr. Melvin Abelseth passed away peacefully on July 11 2015 at the age of 91. Mel received his Doctor of Veterinary Medicine degree from the University of Guelph (Ontario) in Canada and then his PhD in virology from the University of Minnesota in the USA.

His work was instrumental to the development of the rabies vaccine derived from the ERA virus strain, widely used as a parenteral vaccine and also the basis for the first experiments with oral vaccination. All modern oral rabies virus vaccines are derived from the original ERA strain. Mel was a rabies expert for

the World Health Organization for many years.

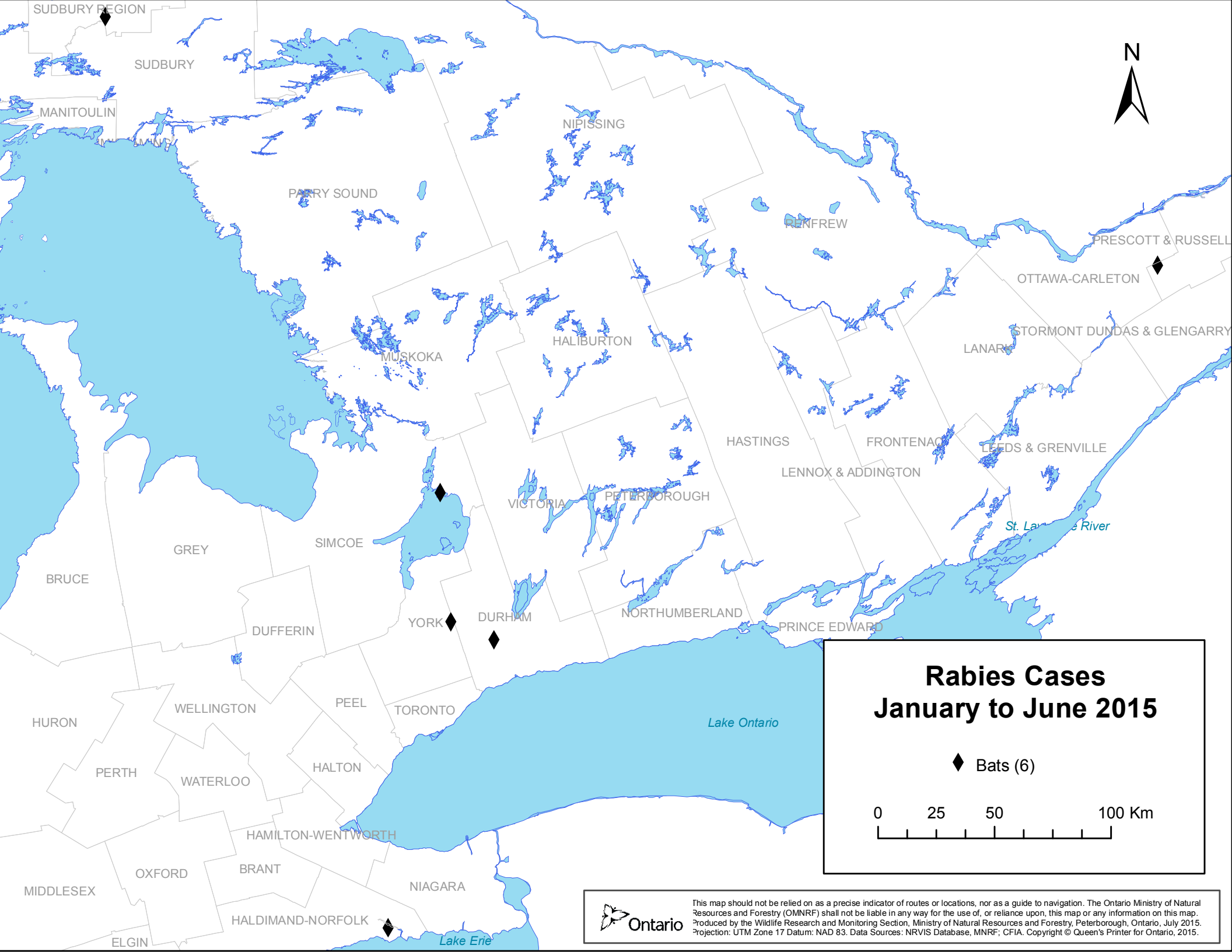
In 1967, Mel moved with his family from Canada to Albany to become the state veterinarian and director of the rabies lab there. He retired in 1988. A more detailed personal obituary is available at <http://www.legacy.com/obituaries/timesunion-albany/obituary.aspx?pid=175319017>. Friends and colleagues are invited to send a contribution to the charity of their choice or do something wonderful for someone today in his memory.

Animal Rabies Report: January to June 2015

[illegible]

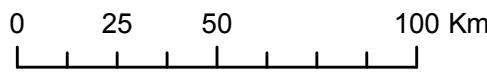
Animal Rabies Report: January to June 2015

Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region	#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative	
		15	14		15	14		15	14		15	14		15	14		15	14		15	14		15	14			
Southern																											
Hamilton																								0	0	0	
Haldimand-Norfolk												1	1											1	1	0	
Brant														1										0	0	1	
Niagara																								0	0	0	
Elgin																								0	0	0	
Oxford																								0	0	0	
Middlesex														2										0	0	2	
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												1	1											1	1	0	
Cochrane																								0	0	0	
Timiskaming																								0	0	0	
Algoma																								0	0	0	
Thunder Bay																								0	0	0	
Rainy River																								0	0	0	
Kenora																								0	0	0	
Regional Totals																											
Eastern	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	
Central	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	3	3	0	
Western	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
Southern	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	0	0	0	0	0	0	1	1	3	
Northern	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	
Totals	0	0	0	0	0	0	0	0	0	0	0	0	6	6	5	0	0	0	0	0	0	0	0	6	6	5	



Rabies Cases January to June 2015

◆ Bats (6)



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 and Forestry (OMNRF) 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 Monitoring Section, Ministry of Natural Resources and Forestry, Peterborough, Ontario, July 2015. Projection: UTM Zone 17 Datum: NAD 83. Data Sources: NRVIS Database, MNRF, CFIA. Copyright © Queen's Printer for Ontario, 2015.