

The Rabies Reporter

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FAREWELL TO A LEADER - AU REVOIR CHARLIE

"I'm only a goose biologist." (*Charlie MacInnes – numerous occasions*) ...
Some biologist! (*Garscadden – numerous occasions*)

Without a doubt, Charlie is one of the most remarkable scientists who ever graced the staff of the Ontario Ministry of Natural Resources. A singular figure, Charlie stands tall in any crowd: piercing eyes above a flamboyant moustache, accompanied below by a wretched tie (tired tartan or western bolo – take your pick) and a rather outlandish western-style belt buckle ... and, if one looks closely enough, the always-present trace of hair from his beloved Corgies, one of which is never far from his side. I sometimes wondered about this style, and concluded that it is reminiscent of a remittance man in the Canadian West at the turn of the 18th century.

Charlie started life from a perch of privilege - a Montreal family with strong roots in the Family Compact, a network of figures who ruled the country before the days of representative government. Like many with that background, he has an easy carriage with the great and powerful and the weak. Charlie treats them all the same – one of his great strengths and weaknesses. While he can be incredibly charming, Charlie also can bite hard. He does not tolerate the foolish and self-important very easily.

In the 50's in Montreal, Charlie could have enjoyed a prosperous career in business as a result of extensive family contacts. Instead, Charlie chose to study biology and graduated from Cornell with his PhD at the age of 24. He excelled in his chosen field. The legacy left by him and his students at Western is substantive and in-

cludes some of the most cited papers in wildlife biology.

Charlie's understanding of wildlife and his powers of observation and recollection are phenomenal and frequently amaze his colleagues. And on more than one instance, including the following episode, he has literally shocked people with the depth of his knowledge. He once (or twice) related the story of an event that took place while he was standing in a cafeteria line-up during a wildlife conference years ago. The conversation centred on the subtleties of shorebird identification. Charlie outdid his fellows by launching into a commentary on the distinguishing traits of the various creatures as food for the plate! ... (this as a result of his many years in a field camp on the western coast of Hudson's Bay). Typically, Charlie ended the story by chortling and breaking into a loud hack.

Most scientists in wildlife biology are highly conventional and risk adverse, partly out of fear of peer review and partly out of a lack of imagination. Not Charlie. One of his strengths is his ability to see over the "hill beyond the hill beyond the hill" - also to take risk and to be incredibly generous with his ideas. In the late 1980's he foresaw the opportunity for a breakthrough technology to track the movements of large animals, and despite many nay sayers, proceeded to commission a study by Lotek Engineering Ltd which eventually led to the development of the first GPS tracking system for large mammals. This technology was pivotal to launching the careers of several young wildlife scientists and revolutionizing some aspects of wildlife studies. Typically, Charlie never sought credit for this advance, leaving a place for others to

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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 Animal Diseases Research Institute of the Canadian Food Inspection Agency; the Ontario Ministry of Health; and the Geographic Information Systems Laboratory at Queens University, Kingston. 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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Visit: www.gis.queensu.ca/RRReporter/ or
<http://rabies.mnr.gov.on.ca/>

bask in the sunlight of this breakthrough.

Charlie also has a great aversion to “the mentality of poverty. Throughout his career, Charlie approached his work with the starting premise that it was best to do *what is needed*, and not be constrained by *what is possible*. With the philosophy, he shaped the rabies control program from its very early days and advanced it to the point where a large-scale trial was necessary to test the science. He and Dr. Steve Smith, then Chair of the Rabies Advisory Committee, risked all. They pressed a convincing argument that if the Province failed to support a large-scale trial, the program should be terminated. The rest, as they say, is history.

When I first took on responsibilities as Manager of Wildlife Research in Maple many years ago in order for Charlie to devote himself more fully to the rabies program, he presented me with a large coffee mug – soon to be a cousin of his ever-present tea mug. On one side of the mug was the picture of a rugged cowboy by Bill Hampton. On the other, was the inscription, “There were a helluva lot of things they didn’t tell me when I hired on with this outfit.” How true that turned out to be ... and what an apt phrase for the moment of signing on with life.

I remember Charlie at that time, his hands thrust in his back pockets and gently rocking back and forth on his heels as he always does when he is happy. Rock on, Charlie. Rock on.

Mark Garscadden
Past Manager, WRDS
Toronto, ON

RABIES IN ONTARIO - 2002 IN REVIEW

The Rabies Research Unit, as it was then, started the first large-scale attempt at rabies control thirteen years ago, in October 1989. How have we done since then?

Well, the original test area in eastern Ontario has been free of arctic fox strain rabies since November 1991. However, skunks had played no role in maintaining rabies from eastern Ontario. In fact rabies disappeared from a lot of western and southwestern Ontario before 2000, but the strain is maintained by skunks from the Lake Huron shore to the crest of the Niagara Escarpment.

Will the severe winter have any effect on that situation? We really have to wait a year before we can draw firm conclusions. However, there were only 10 rabid skunks in the last quarter of 2002, compared to 25, 23 and 17 in the same part of the previous three years.

For the year as a whole, fox rabies was down a bit in southwestern Ontario, to 52 cases overall from 76 in 2001. The one worrisome event in the last quarter was a cat with arctic fox strain in Middlesex County. That is outside the area that has had the rabid skunks for the last decade, and we hope it does not represent southward spread of rabies.

The Sudbury outbreak of arctic fox strain rabies appears to be over. In fact, in common with most of the other northern events, it looks as though the rabies was gone before the fall bait drop.

However, better doubly safe than sorry, eh?

It was a record year for rabid bats, breaking last year’s record numbers by a wide margin, 73 in 2002, compared to 54 in 2001. Once again cases were widely spread, except that the western region had fewer cases. The very hot summer probably played a role. One hypothesis is that bats under stress are more susceptible to rabies. The heat is a stress, and perhaps it also influenced abundance of flying insects. I expect that numbers of rabid bats will drop back to the 20-30 level during 2003, but that will, at least in part, depend on summer weather.

Raccoon rabies continued to simmer at low levels in eastern Ontario, despite intensive efforts to eliminate it completely. There were nine cases during the last quarter – eight of these occurred in a small cluster near the Spencerville area and the ninth case occurred in the Mallorytown area.

The expanded baiting efforts in New York, both along the St. Lawrence and on the Niagara frontier, should help prevent any reinvasion of Ontario.

Overall, rabies was at low levels by the end of 2002. Let’s hope it goes even lower in 2003 for both the fox and raccoon strains.

Charlie MacInnes
RRDU
Peterborough, ON

RABIES IN NEW YORK - 2002 ANNUAL SUMMARY

Introduction

Rabies remained a widely-distributed enzootic disease of terrestrial mammals and bats in New York State in 2002. The raccoon variant of rabies virus was diagnosed in animals from 50 of the 57 counties outside of New York City, and in the Bronx. The positivity rate of submitted raccoons was 42.0% in 2002, and was unchanged from the average of the previous 5 years (42.8%). Rabid bats were identified in 40 counties outside of New York City and in Bronx, Brooklyn and Manhattan.

Specimens Tested

There were 8481 specimens submitted for rabies diagnosis in 2002. This is the lowest number of specimens submitted since 1995 and is a 10.9% reduction from the average of the previous 5 years. In comparison to 2001 there were 9.0% fewer submissions of specimens with no reported human contact. In contrast, there was a 1.0% reduction in the submission of specimens where a human had been potentially exposed to rabies. This suggests selectively reduced submission of non-essential specimens for disease surveillance. Specimens were submitted from all 57 counties outside of New York City.

Although specimen submissions were below average for much of the year, the summer submission rate actually rose. During July and August 2002, 3722 specimens were submitted for rabies diagnosis. This represents 44.0% of the total specimens tested for the year. The average for the same period in the previous 5 years was 3606 which represented 37.0% of annual totals. Fifty-four species of animals

were submitted for rabies diagnosis in 2002. Domestic species comprised 32.1% (2725) and wild species 67.9% (5756) of all tested. Bat specimens comprised the largest single category for the fifth consecutive year with a total of 3827 received, representing 45.1% of all animals tested in 2002. The laboratories also examined 1675 cats (19.6% of all animals tested), 802 raccoons (9.5%), 767 dogs (9.0%), 403 skunks (4.8%), 389 rodents and lagomorphs (4.6%), 189 foxes (2.2%), 114 cattle (1.3%) and 80 other domestic animals (0.90%).

Rabies in Wildlife

Rabid wildlife accounted for 93.4% (684) of the total rabies cases this year. This consisted of 355 raccoons (52.0% of all rabid wildlife), 176 skunks (25.8%), 102 bats (14.9%), 38 foxes (5.6%), 8 woodchucks (1.2%) and 5 white-tail deer (0.70%). The five rabid deer is the largest number identified in the state since 1993. The 82 deer submitted to the laboratory is the largest number tested since 1994 and is 52.0% higher than the average of the previous five years. This increase in submitted deer is largely due to increased surveillance in the state for chronic wasting disease of cervids. The selective testing of deer showing neurological symptoms, examined first for rabies infection, was potentially responsible for the 6.1% rabies positivity rate among submitted deer. This rate of rabies infection among submitted deer was seen previously only in 1992 and 1993, at the peak of the raccoon rabies outbreak.

Rabies in Domestic Animals

Rabies infections were identified

in 48 domestic animals in 2002, including 31 cats (64.6% of all cases in domestic species), 12 cattle (25.0%), 3 dogs (6.3%) and 2 horses (4.1%). The high proportion of rabid cats continues to punctuate the concerns regarding the need for cat vaccinations. The three rabid dogs is the highest number of positive dogs in the state since 1997. Two of the three dogs were unvaccinated puppies of 7 weeks and 7 months of age. Two of the three dogs bit their owners.

Rabies in Bats

The 3827 bats tested at the Wadsworth Center in 2002 is the third highest number of bats tested in any one year in New York State and is 10.0% higher than the average number of bats tested in the previous five year period. These specimens were comprised of 2703 big brown bats (70.6% of all bats tested) and 956 little brown bats (25.0%). Ten hoary bats, 38 red bats, 12 silver-haired and 43 pipistrelle bats also were received for testing. Among all bats tested 1321 (34.5%) either had direct contact with a human or potentially exposed a human to rabies by being found inside a dwelling occupied by humans. The number of bats in contact with dogs or cats was 1138 or 29.7% of all bats tested.

The 99 rabid bats diagnosed at the Wadsworth Center during 2002 included 86 big brown bats, 7 little brown bats, 2 hoary bats, 1 red bat and three freetail bats submitted from Texas as part of a collaborative study. Overall, the rabies positivity rate in bats was 2.6% of all bats submitted, 3.2% of all big brown bats submitted and 0.70% of little brown

bats submitted. These numbers continue to reflect a trend seen in previous years where the positivity rate among bats has declined. The averages for the previous five years show 3.1% of all bats, 4.1% of big brown bats and 0.79% of little brown bats submitted for testing were found to be rabid. National guidelines call for the testing of bats found inside human dwellings. This increased testing has made larger the denominator in the equation of rabid bats/submitted bats, thereby lowering the positivity rate of all bats tested.

Serologic Examinations

The Wadsworth Center rabies laboratory performed serologic assays for rabies neutralizing antibody on 1974 human samples during the year. These tests are done to help determine the adequacy of response to rabies vaccination and the timing of booster vaccination. The laboratory also received 799 raccoon serum samples, done in support of state and Federal programs for wildlife rabies vaccination.

*Chuck Trimarchi
Wadsworth Center
New York*

much time to practice science anyway.

After an extensive and thorough search, Dennis Donovan was hired for the position.

Dennis started his career with the Ministry of Natural Resources in 1978 after graduating from the forestry program at Lakehead University in Thunder Bay, Ontario.

From Lakehead, he went to work as a forester in Red Lake. Dennis made a monumental move south to the Brockville office where he worked as a forester and later as a fish and wildlife technician.

In 1996, Dennis joined the Rabies Research and Development Unit as a research technician with the Trap-Vaccinate-Release (TVR) program. He was soon reclassified as a senior technician due to his supervisory role in both the St. Lawrence and Niagara TVR programs.

Dennis, his wife and his two sons relocated to the Peterborough area in 1997 when the Rabies Unit was moved from Maple.

Welcome Dennis from the entire RRDU.

*Beverly Stevenson
RRDU
Peterborough, ON*

and tables than in the actual text of the articles.

The maps will also be changed to reflect the distribution of the strains of rabies. There will no longer be three separate maps for foxes, raccoons, and skunks. There will be one map for raccoons (which normally have mid-Atlantic raccoon strain) and a second map will depict the rabid foxes and skunks (which normally have Arctic fox strain).

There will also be more articles from other agencies including the Ministry of Health and Canadian Food Inspection Agency.

If you would like to see articles on a particular rabies-related subject or if you wish to submit an article for a future issue, e-mail: beverly.stevenson@mnr.gov.on.ca

As always, if you are still receiving a hard copy of the Rabies Reporter, you are urged to subscribe to the electronic format. The colour diagrams are much easier to interpret than black and white. You will also receive an e-mail as soon as the latest issue is available on the web-site.

We hope that these changes will make the Rabies Reporter easier to interpret and more enjoyable for the entire audience.

*Beverly Stevenson
RRDU
Peterborough, ON*

A NEW MANAGER FOR THE RRDU

After Charlie MacInnes' retirement in November 2002, a search was begun to find someone to fill his shoes.

The decision was made to change the position from a co-ordinator to a managerial position. With this added responsibility, it was felt that the new manager no longer needed to be a scientist since he/she would not have

UPCOMING CHANGES TO THE RABIES REPORTER

You will notice a different format for the upcoming issues of the Rabies Reporter. Although the changes are minor, they should make a significant difference in the appearance of the Rabies Reporter.

Data will appear more in graphs

HOW TO REACH US:

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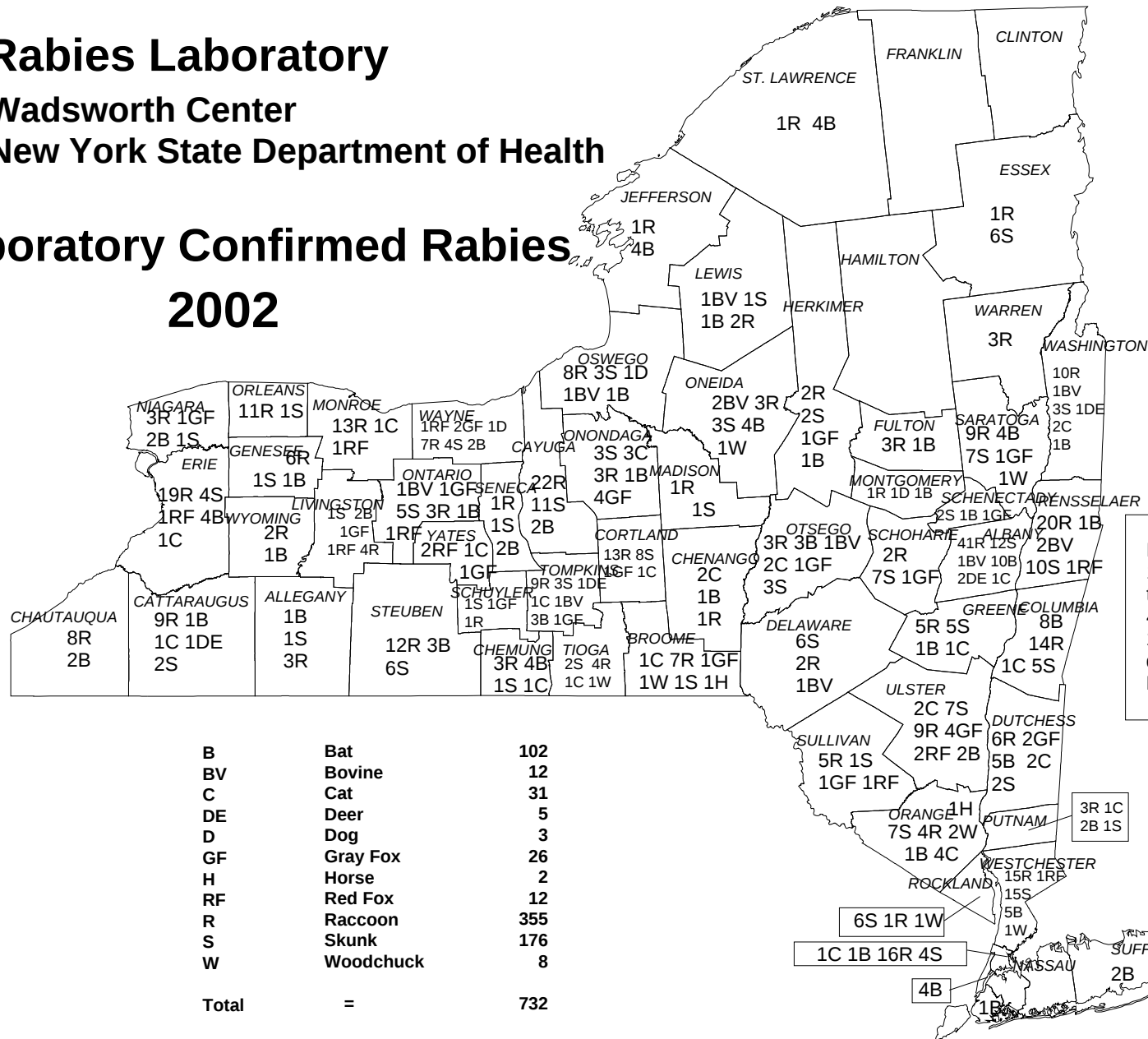
Rabies Laboratory

Wadsworth Center

New York State Department of Health

Laboratory Confirmed Rabies

2002



Animal Rabies Report: October to December 2002

Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region	#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative	
		02	01		02	01		02	01		02	01		02	01		02	01		02	01		02	01		02	01
Eastern																											
Stormont, Dundas & Glengarry														2	1										0	2	1
Prescott																									0	0	0
Russell																									0	0	0
Ottawa-Carleton													3	8	5										3	8	5
Renfrew														2	1										0	2	1
Lanark														2											0	2	0
Leeds and Grenville				9	19	45			2						6										9	19	53
Frontenac													1	4	3										1	4	3
Lennox & Addington															3										0	0	3
Central																											
Hastings																									0	0	0
Prince Edward															1										0	0	1
Northumberland														1											0	1	0
Victoria													1	1	1										1	1	1
Haliburton																									0	0	0
Peterborough									4				1	3	2										1	3	6
Durham														5	1										0	5	1
York Region													1	4	1										1	4	1
Toronto														7											0	7	0
Simcoe							2	2	2				1	3	3		1							1	3	6	6

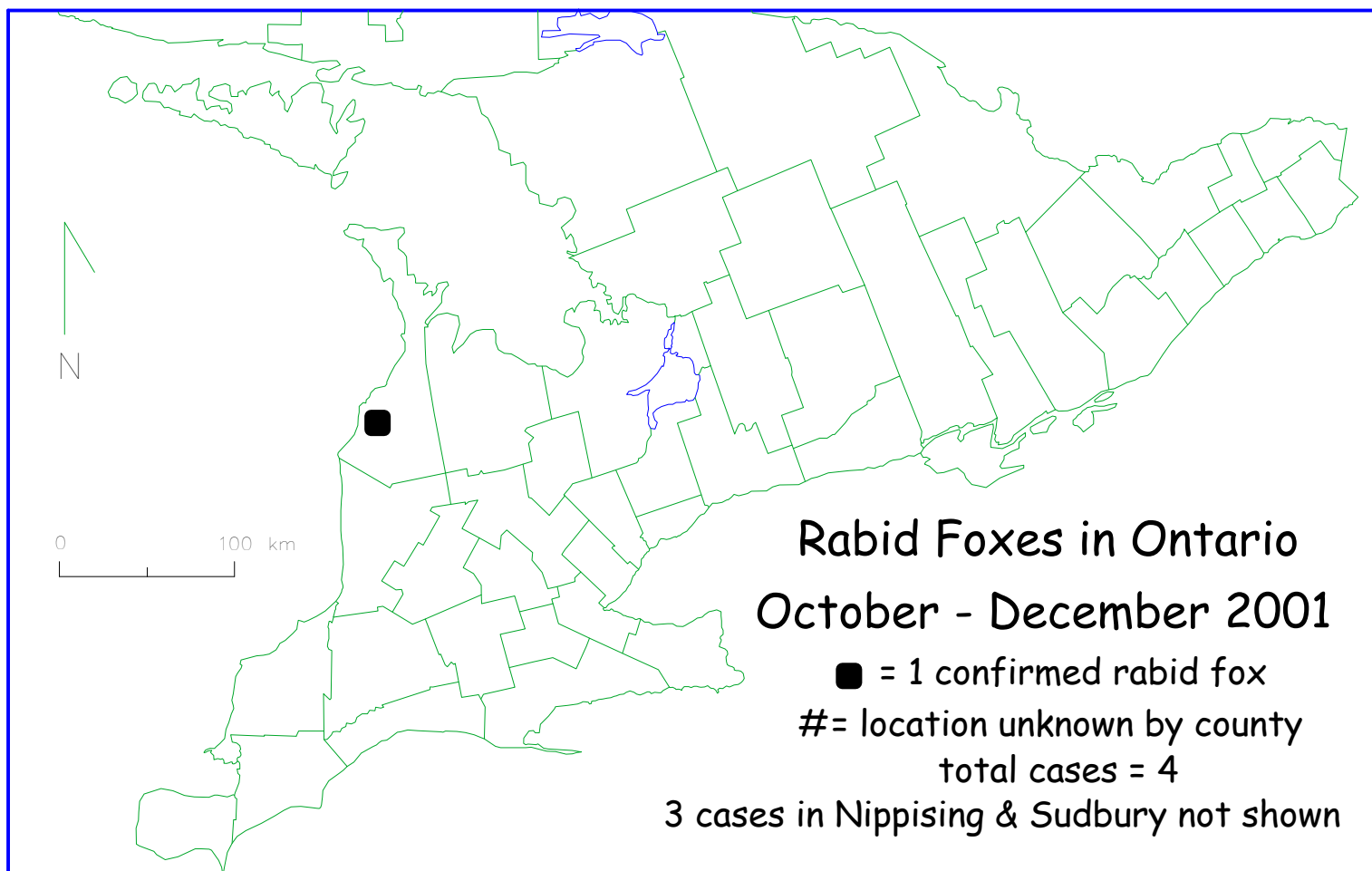
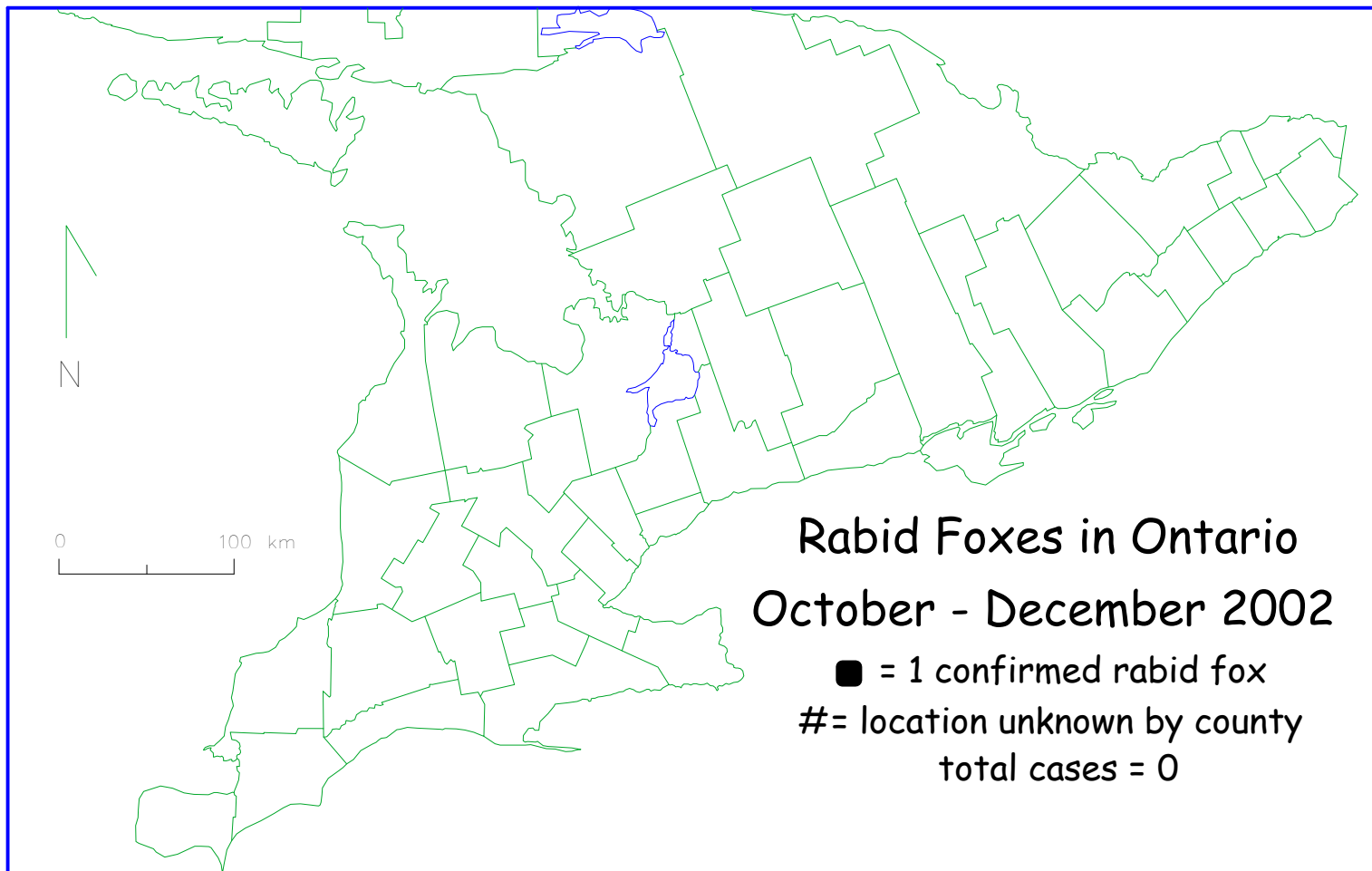
Animal Rabies Report: October to December 2002

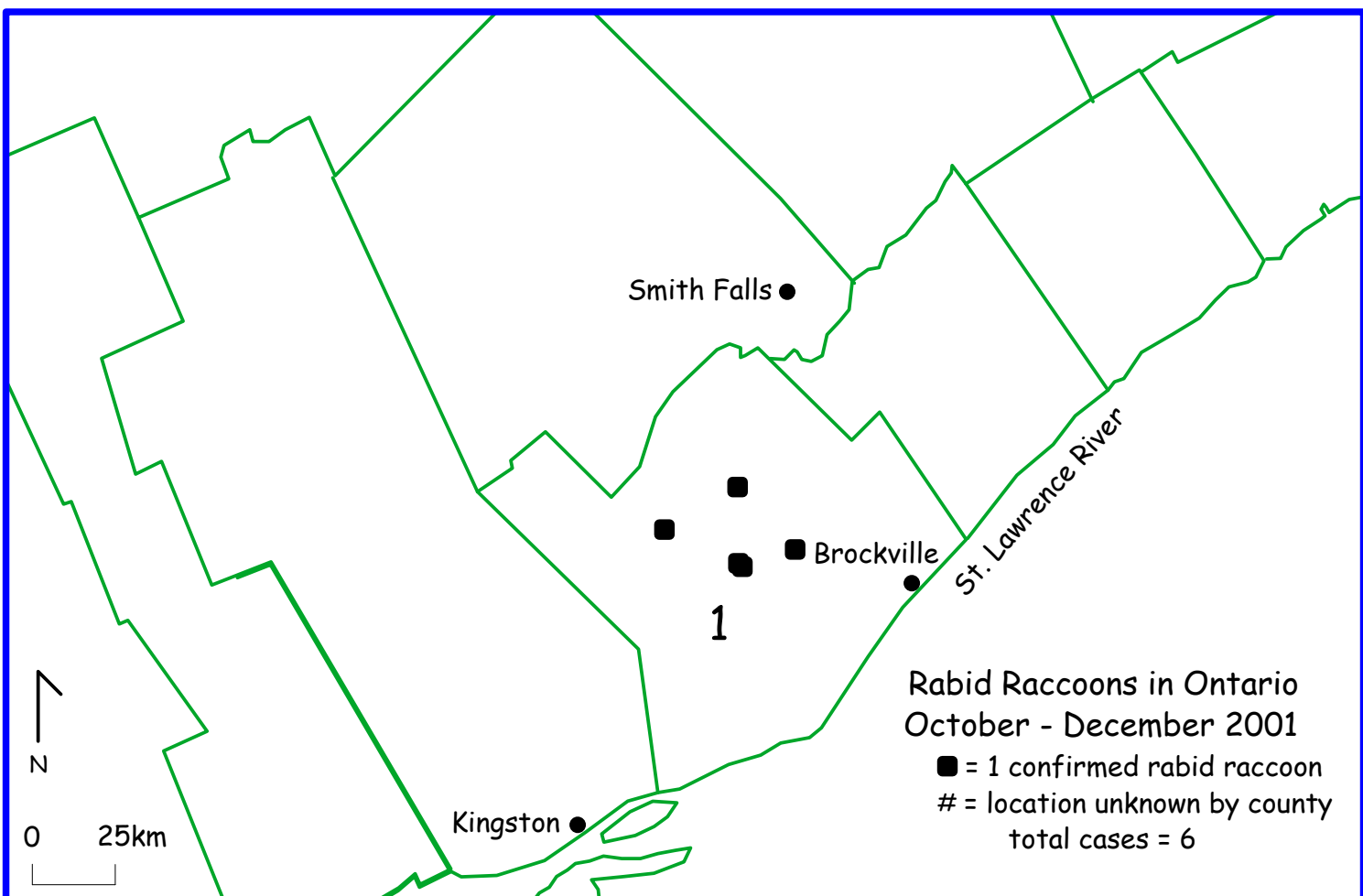
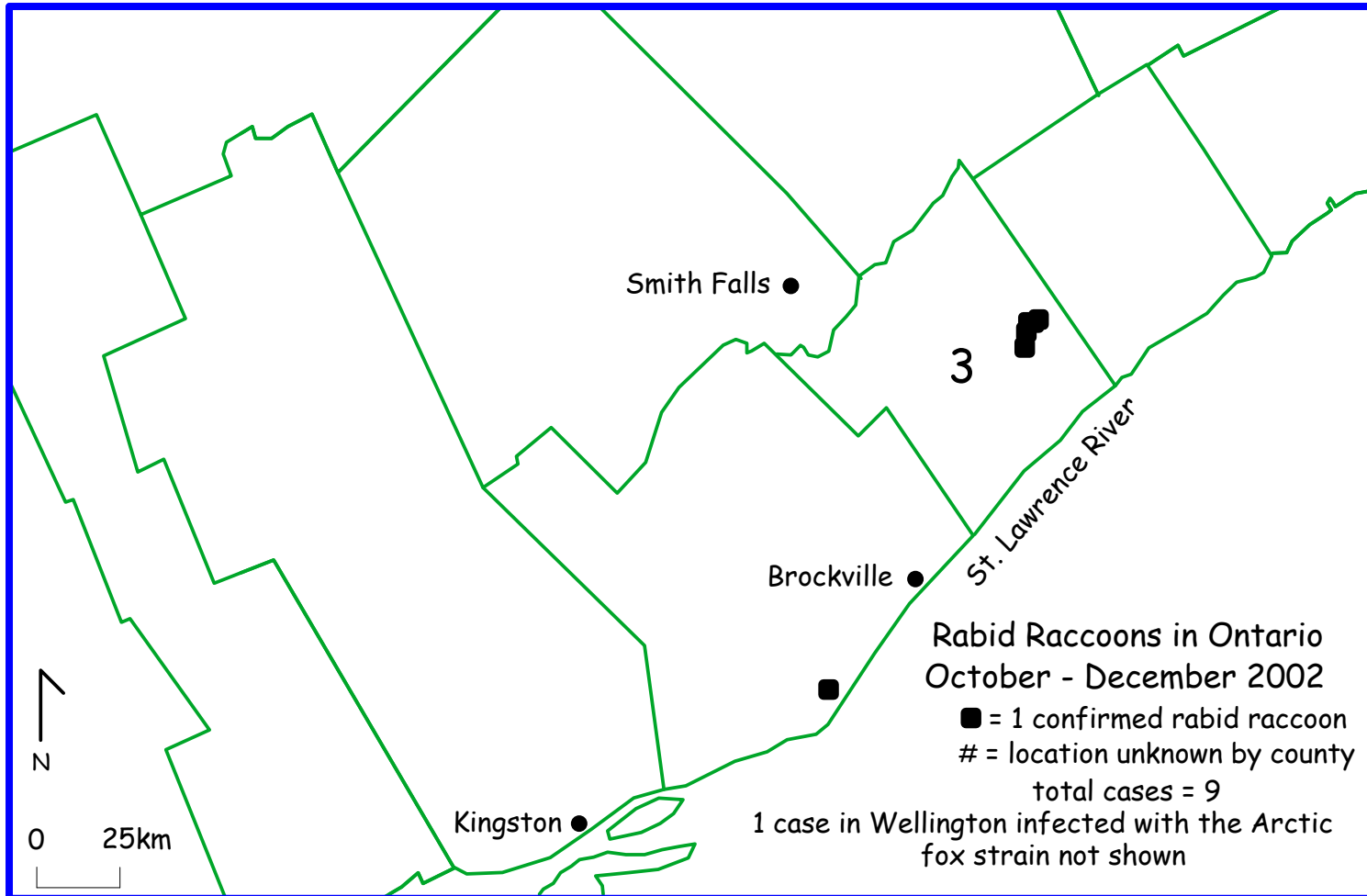
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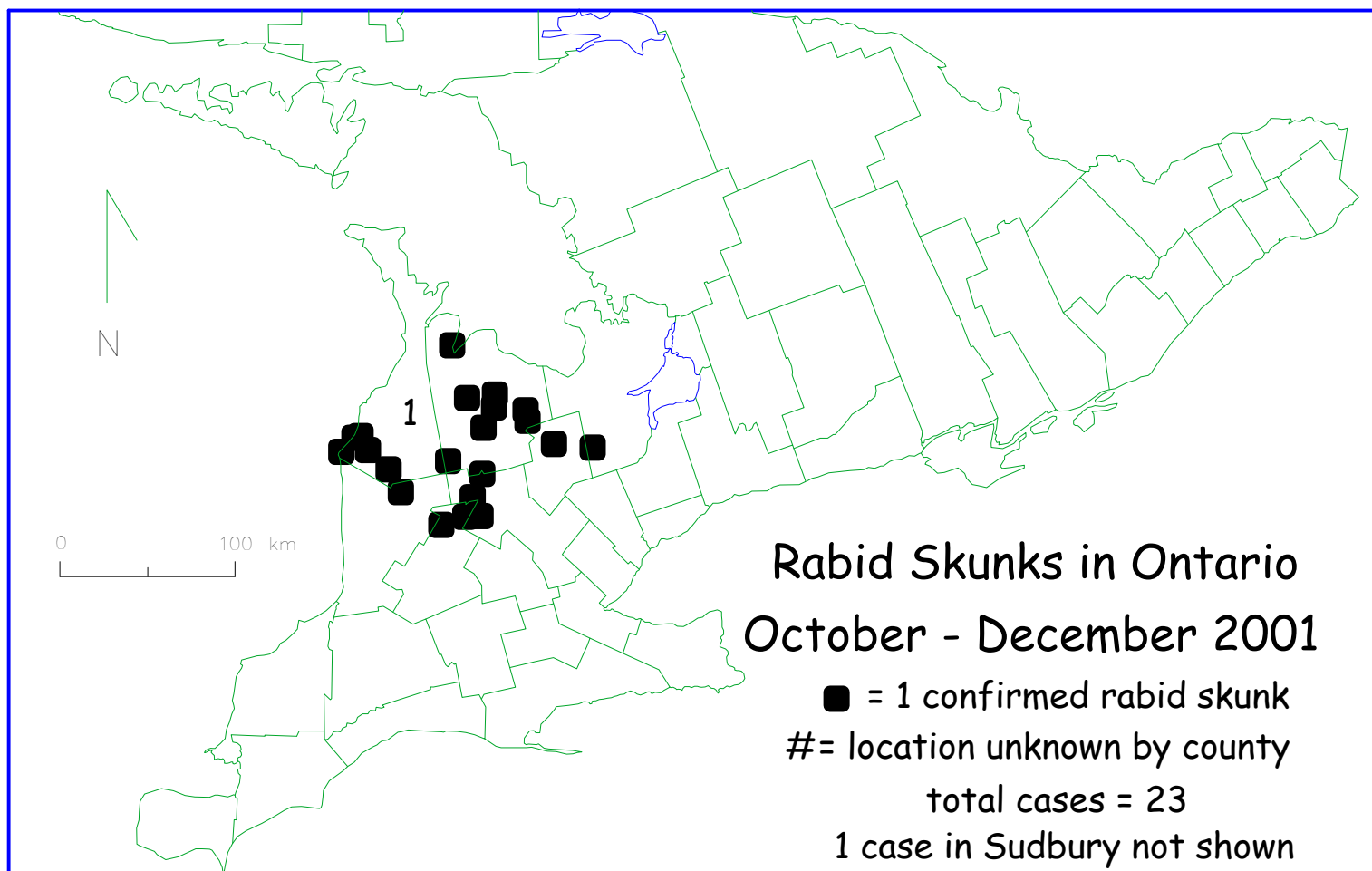
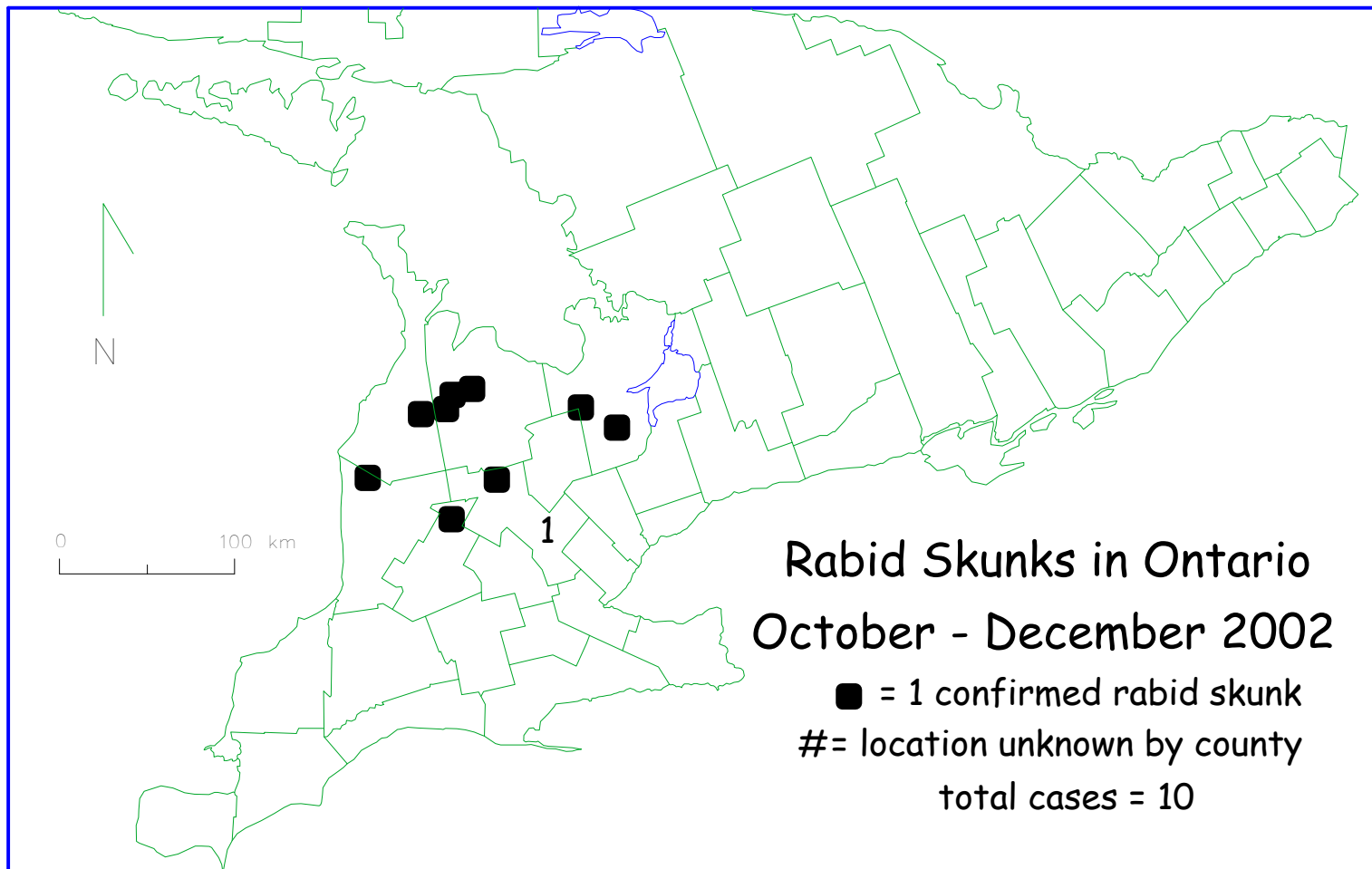
Animal Rabies Report: October to December 2002

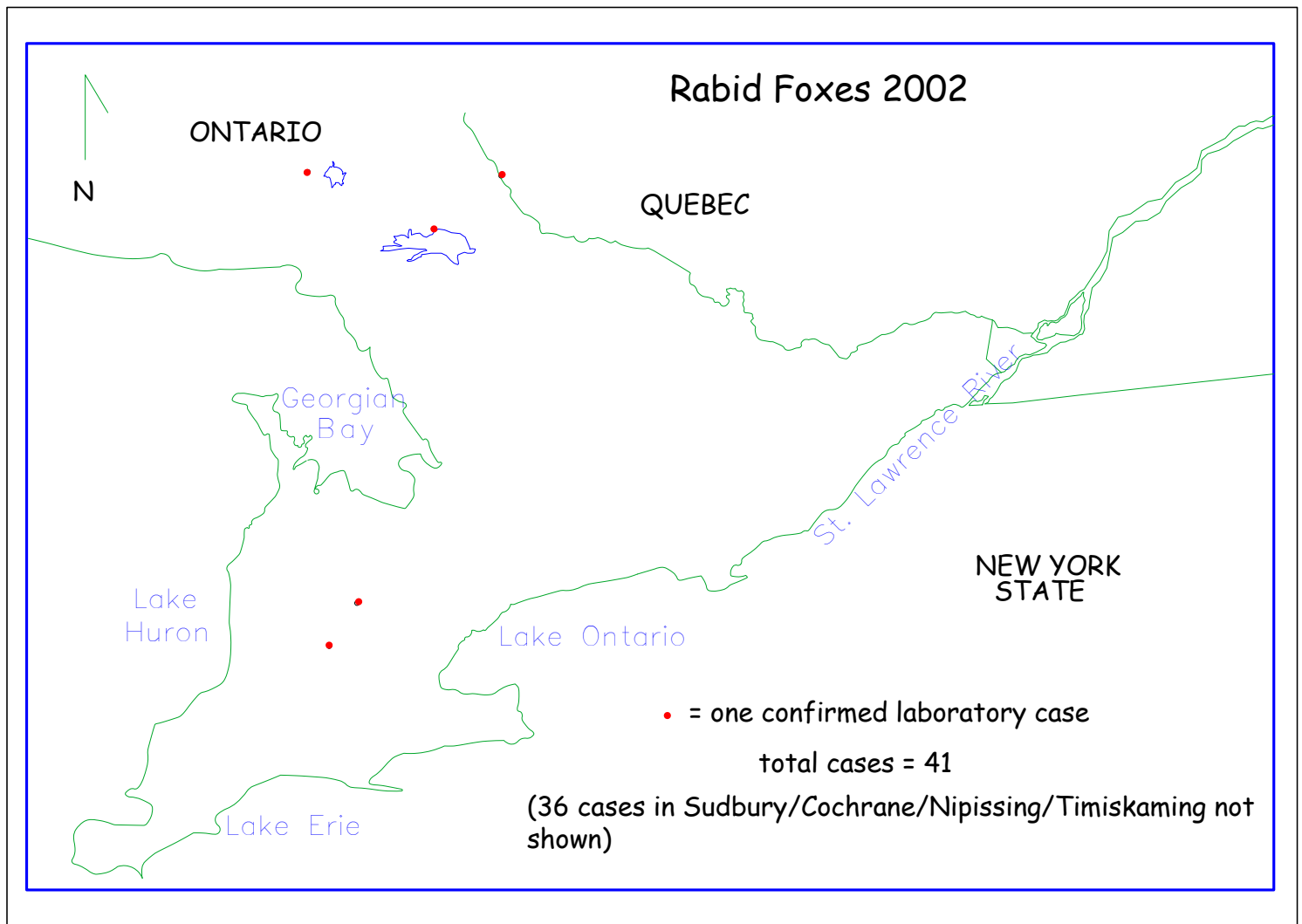
Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region	#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative	
		02	01		02	01		02	01		02	01		02	01		02	01		02	01		02	01		02	01
Northern																											
Muskoka																								0	0	0	
Parry Sound																								0	0	0	
Nipissing		2	4												1							1		0	2	6	
Sudbury		33	16		2			2		2				2			1	1			3		0	43	19		
Cochrane		1	2							2					1							3		0	1	8	
Timiskaming		3								1											1		0	4	1		
Algoma																					1		0	1	0		
Thunder Bay																						1		0	0	1	
Rainy River																								0	0	0	
Kenora																								0	0	0	
Regional Totals																											
Eastern				9	19	45			2				4	18	19									13	37	66	
Central							2	2	6				4	24	9		1						1	6	27	16	
Western		2	4	1	1		8	44	47				1	7	1		1	2	1	3	1		2	13	11	60	68
Southern													2	24	25				1	2			1		3	27	25
Northern		39	22		2				2		2	3					2	2		1	1		5	5	0	51	35
TOTALS	0	41	26	10	22	45	10	46	57	0	2	3	11	73	54	0	4	4	2	6	2	0	8	19	33	202	210

Notes for this quarter: The bat in Simcoe County was a northern long-eared bat. All other bats were big brown bats.



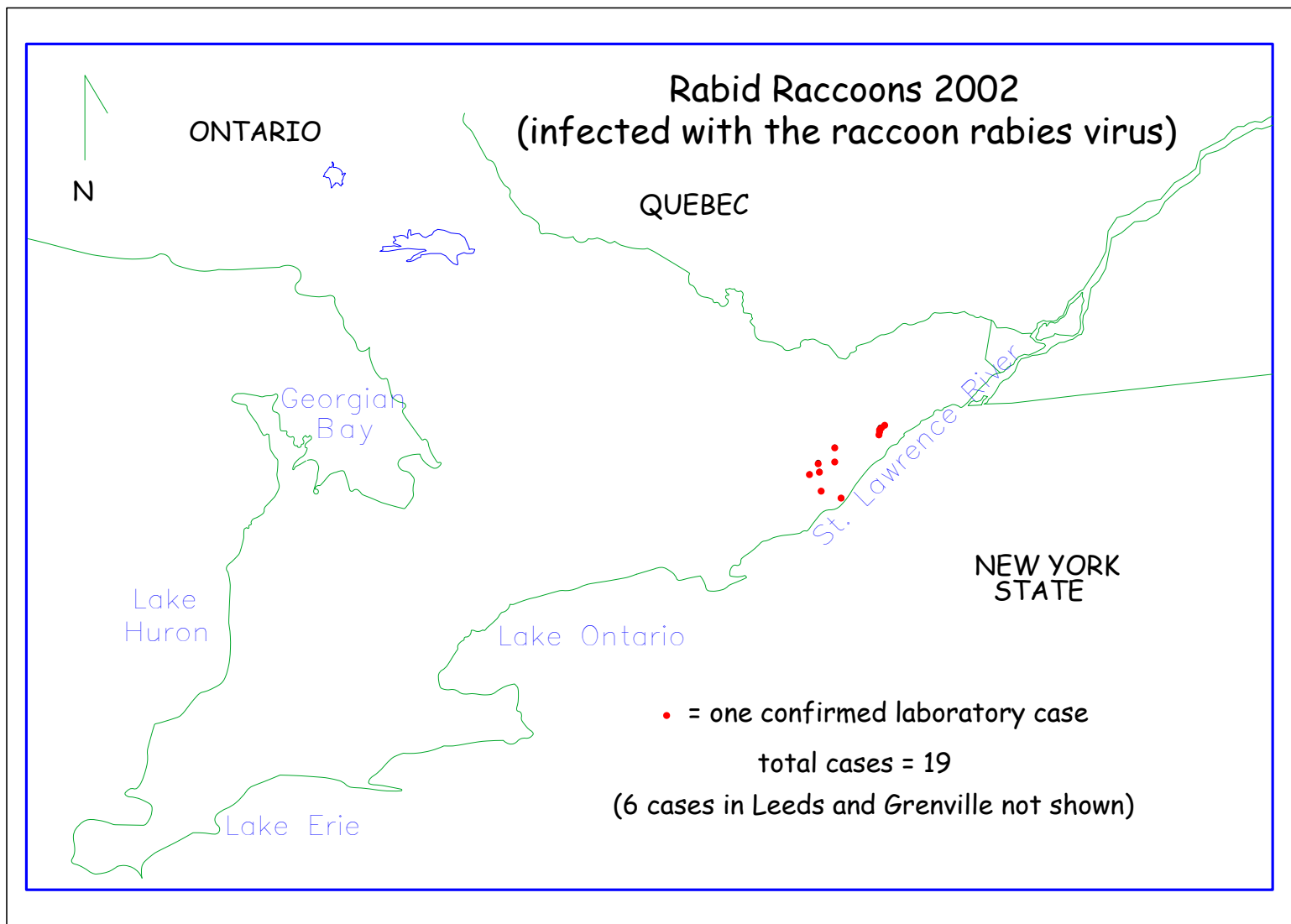






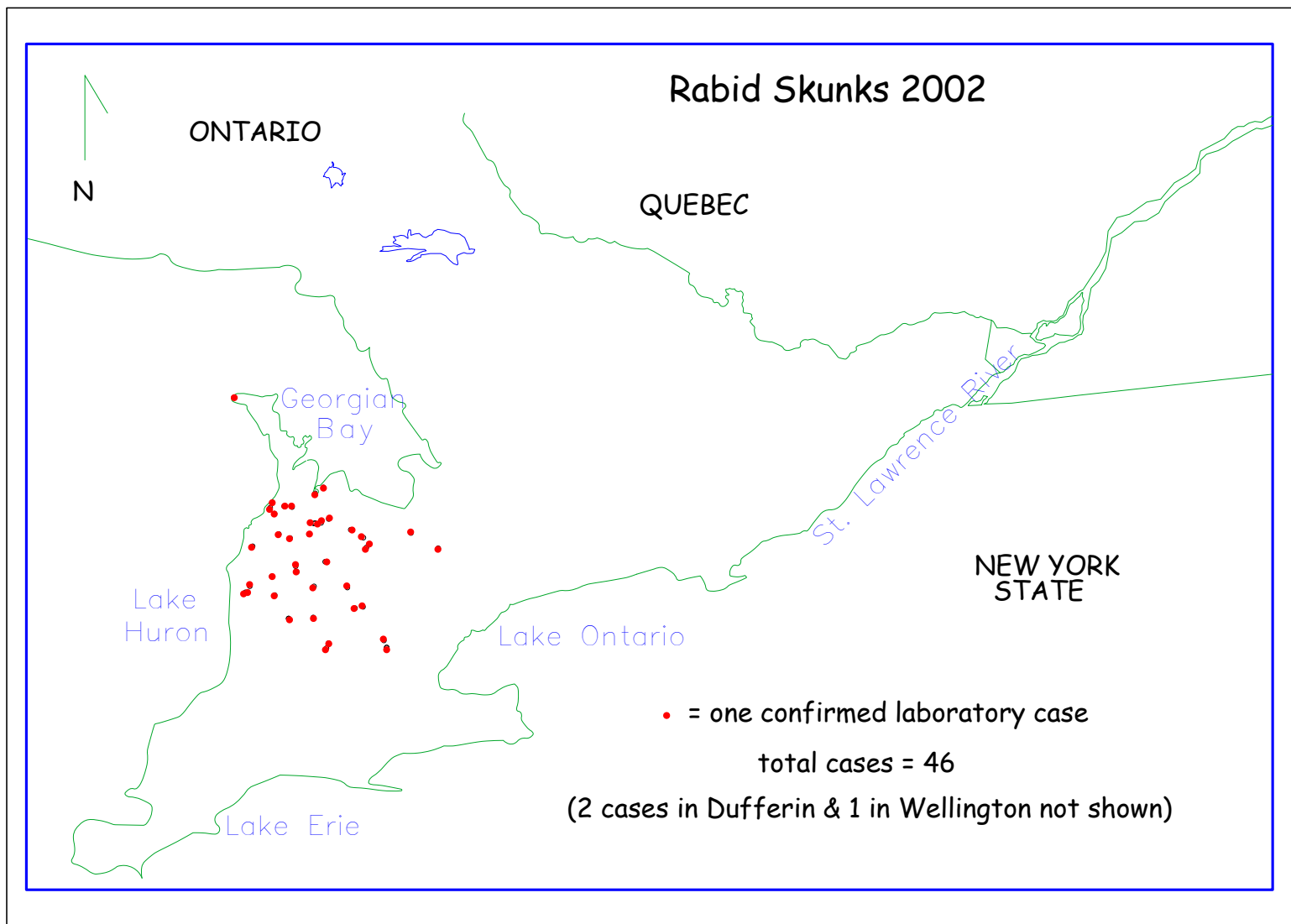
GIS Lab, Queen's University

Data Source: Animal Diseases Research Institute, Nepean, Ontario



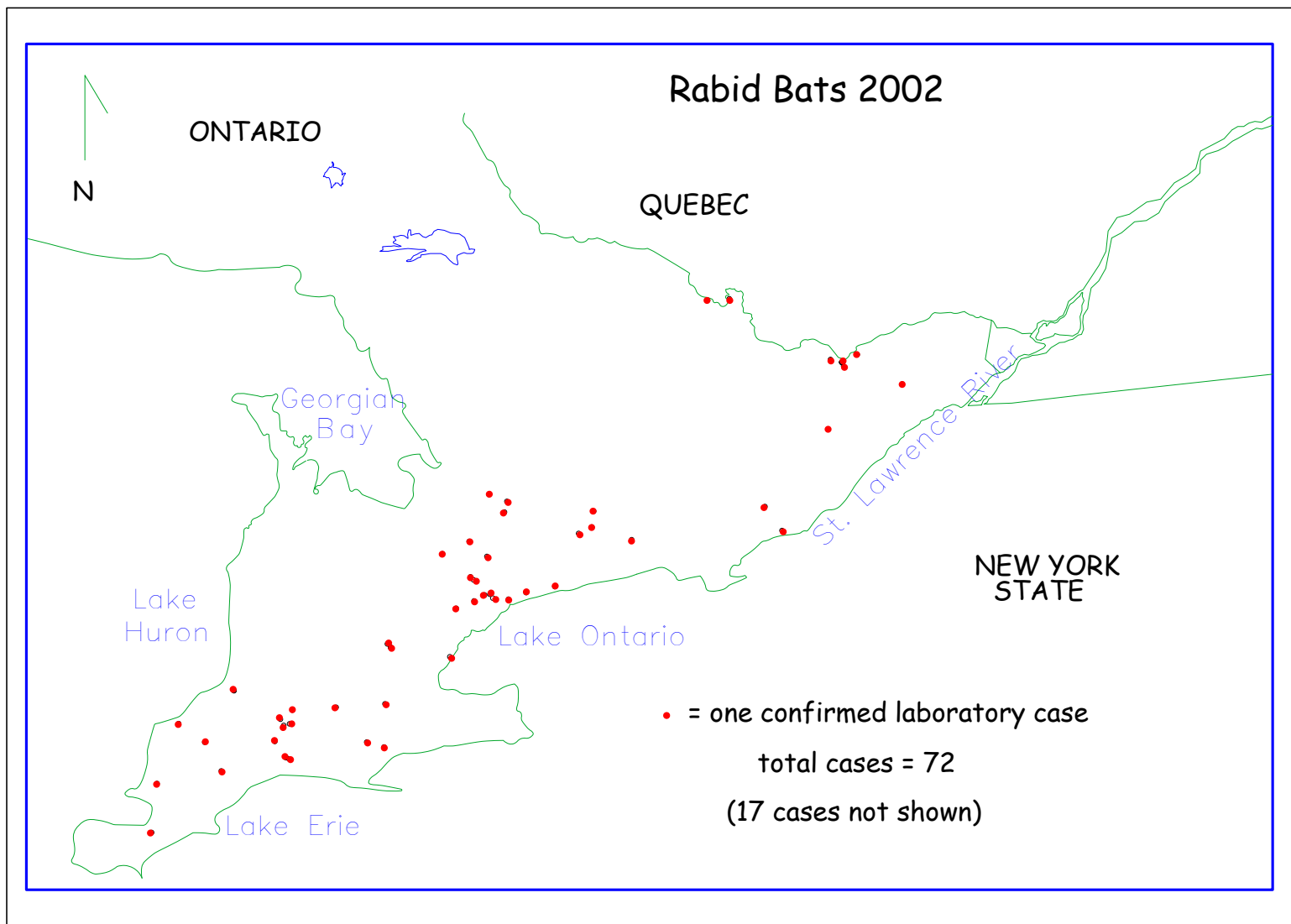
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