

The Rabies Reporter

August 1999

Volume 10, Number 2

ISSN 1186-8961

RACCOON RABIES REACHES ONTARIO

The “heads up” call came from Doug Hayes, chief of the CFIA district office in Brockville, just after lunch on Wednesday 14 July. On Tuesday a rural resident found a raccoon that had climbed into the kennel run with his three large dogs, and been killed. Doug had submitted the head for diagnosis, and he had just heard that the animal was rabies positive. Around supper time Alex Wandeler of ADRI released the information that the animal was infected with the raccoon strain. The location of this incident was between Domville and Maynard, 7 km west and slightly north of Prescott, which in turn is located on the St. Lawrence, east of Brockville and south of Ottawa. There is a bridge across the river from Prescott to Ogdensburg, New York. Guess what?? The Ogdensburg area is in its second year of an outbreak of raccoon rabies. The source of Ontario’s problem was no mystery.

It will please all readers who participated in preparation of Raccoon Rabies Contingency Plans to know that action was prompt and concentrated, and very much according to those plans we all worked on. Rick Rosatte had 14 trappers working on Trap-Vaccinate-Release in the

Niagara area and along the St. Lawrence. The “heads up” call came on Wednesday, and by Thursday evening all 14 trappers were in the Maynard area setting out traps.



Figure 1.

Location of the first two cases of raccoon rabies in Ontario. The inner zone (shown in black), had a 5-km radius. The TVR belt around the removal zone was 5 km wide. The bait zone (stippled) outside that will be about 10 km wide. The TVR zones are the vertically hatched areas. For more detail of vaccination zones on the New York side of the river, see Figure 2.

The results of their efforts are in Table 1.

After 7 days of trapping in the inner, 5 km radius, removal zone, the TVR trappers moved to the outer zone to complete TVR there. Members of the local Fur Harvesters Council took over in the inner zone.

The next trouble came on Sunday, 25 July. A raccoon with its face full of porcupine quills fought with a farm dog, then went up a tree on the lawn. The farmer shot it, and asked that it be tested for rabies. On Monday it was confirmed positive, and typed as raccoon strain. So now we had case number 2, about 15 km west and north of the first. By now Rick had a lot of contacts among the local trappers, so he enlisted them for the inner removal zone. Also, the TVR trappers had now been away from home for close to two weeks, so they were anxious to get back. Rick was also interested in getting them back to their regular TVR beats, because we want all those areas completely treated by mid-October. The local trappers are going to fill in, using their own equipment as well as live traps from the "bank" purchased a few years ago by MNR, using funds supplied by CFIA, to cover just such an incident as this.

Back in head office, there was intense activity directed at finding resources to deal with the emergency. It turned out that there were two sides to this picture, finding money to buy baits, and negotiating the logistics of getting the baits on time. The latter consideration is still under negotiation, so I cannot report on exact plans for next fall. Merial Inc. in Atlanta are doing the best they can to make vaccine and baits for Ontario. It is no joke to produce up to 400,000 doses of vaccine, over and above other orders, in six weeks or so.

There is a biological limitation, too. We know, especially from the TVR trapping, that by mid-October raccoons are losing interest in feeding, as they get ready to den for the winter. Exactly when this occurs is uncertain, and it may vary from year to year. However, it is important to get baits out early enough that the

raccoons will still be interested in eating them. Our target is to have all baits on the ground before 30 September.

Plans for the fall call for a lot more baits to be put on both sides of the St.

Figure 2 shows the situation on the New York side of the river in detail. The concentration of cases close to the river, and to the Ogdensburg-Prescott bridge, that makes it no surprise that this is where

Table 1. Summary of the removal success (75 km²) and TVR (225 km²) zones around the first and second cases of raccoon rabies. All cats were vaccinated, none were euthanized.

First Removal	Fri. 16 July	Sat 17 July	Sun 18 July	Mon 19 July	Tue 20 July	Wed 21 July	Thu 22 July
Raccoon	73	74	85	60	54	36	39
Skunk	6	14	10	19	15	9	10
Cat*	20	25	20	18	25		
First TVR	Fri 23 July	Sat. 24 July	Sun. 25 July	Mon. 26 July	Tue. 27 July	Wed. 28 July	Thu 29 July
Raccoon	77	132	81	54	59	43	33
Skunk	14	18	13	19	18	15	10
Cat*	7	3	13	19	18	14	
Second Removal	Wed. 28 July	Thu 29 July	Fri 30 July	Sat 31 July	Sun 1 Aug.	Mon 2 Aug.	
Raccoon	42	60	66	38	42	46	
Skunk	9	24	17	19	8	16	
Cat*	7	3	13	19	18	14	
Second TVR	Wed. 28 July	Thu 29 July	Fri 30 July	Sat 31 July	Sun 1 Aug.	Mon 2 Aug.	
Raccoon	4	36	34	39	26	33	
Skunk	0	5	4	5	6	10	
Cat*	5	13	14	11	10	6	

Lawrence River. On the Canadian side, we will wait until early September to decide exactly where the bait zones will be. There are two reasons for this, first, to see if there are more cases of raccoon rabies, and second, to accommodate the number of baits which can actually be delivered.

raccoon rabies crossed. The dark-bordered FMP area toward the west end of the bait zone is the Jefferson County bait zone first treated in 1995. The Sachet-FMP zones at the eastern end were first treated in 1998. The four plots in between will be treated for the first time in 1999, if current plans come to fruition.

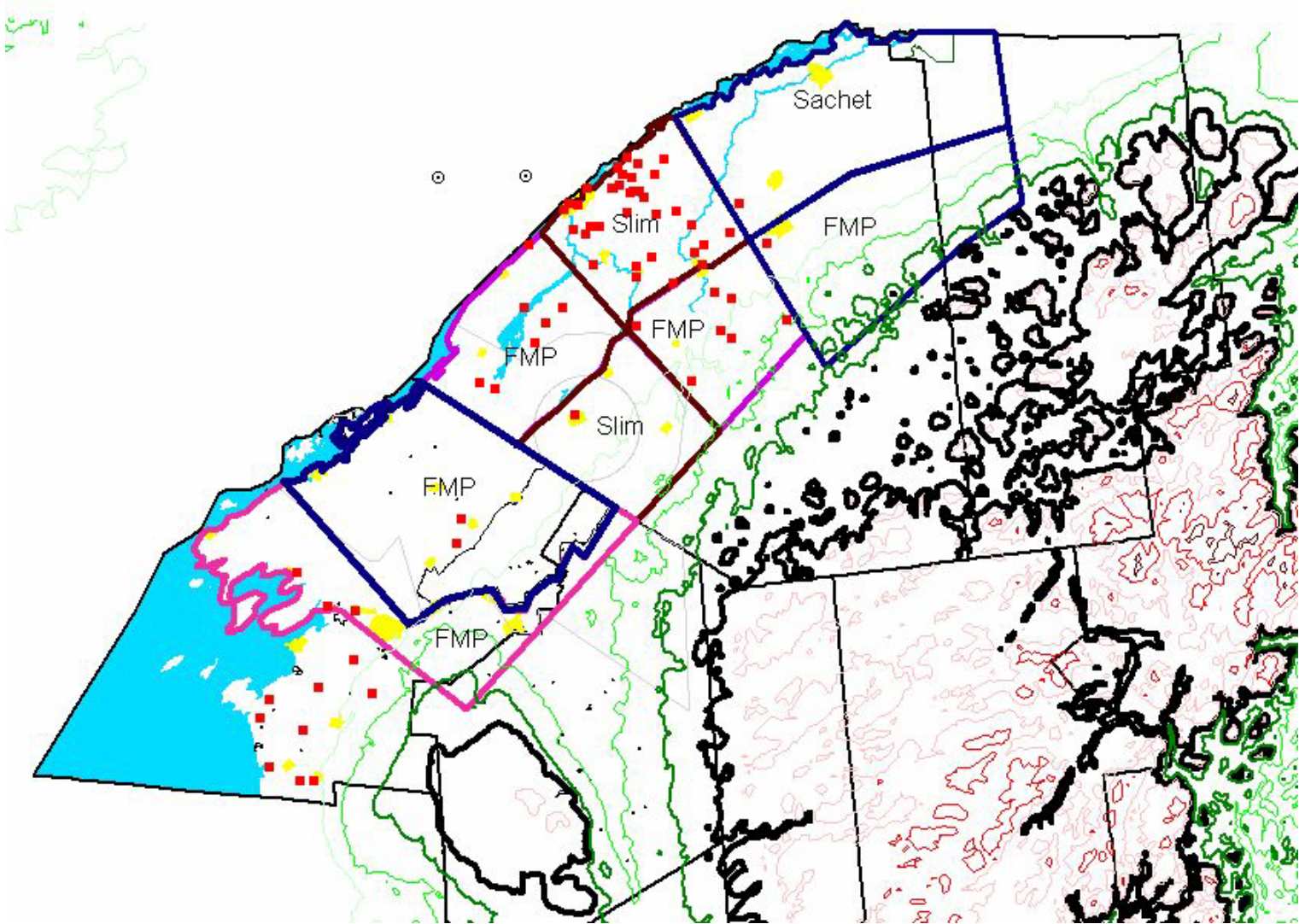


Figure 2 Proposed bait zones for September 1999. Three types of baits will be used: the fishmeal polymer (FMP), the Linhart Sachet, and the Ontario Slim. The squares show the rabies cases during 1999. This bait zone will, hopefully, reduce and eventually eliminate the whole raccoon rabies outbreak in the St. Lawrence River valley. The southern boundary of the bait zone is the edge of the Adirondack Mountains. The two cases in Ontario are shown, to indicate their proximity to the outbreak on the New York side.

The fact that raccoon rabies has not crossed the Niagara River, where there are five bridges, or the St. Lawrence in the Thousand Islands region may indicate that our strategy of combining TVR on the Canadian side with bait drops on the New York side has been effective. This is rather backhanded evidence, but when you consider that raccoon rabies reached the Niagara River shore in 1995, it is probably a strong indicator of success. Despite the presence of raccoon rabies actually within Ontario, treatment of the New York side

remains a high priority. That is the source of the invasion of Ontario, and until the outbreak is rolled back from the river, there will always be a probability of re-invasion. We have made a lot of new plans in the four weeks since the first rabid raccoon came to light. There is a lot more to do, and you may expect an expanded Rabies Reporter in November. We wish our friends at Artemis Technologies and at Merial the best in getting the vaccine and baits ready to drop. Meanwhile we have a full schedule

for New York, Quebec, Ohio, and, oh yes, Ontario.

*Charlie MacInnes
Rabies Unit
Trent University
Peterborough*

Note: Rick Rosatte, Bruce Pond and Laura Bigler contributed a lot to the above article.

RABIES IN ONTARIO DURING THE SECOND QUARTER OF 1999

The second quarter (April to June) was disappointing, because there were about as many rabies cases as there had been the last year up to the same time. In fact, there had been no rabid foxes in the first half of last year, whereas there were two this year. The bad news above is balanced by the fact that most of the remaining rabies is in skunks, and there has been no spread since last year. The two rabid foxes were well within the remaining major rabies problem area in skunks. The two remaining foci of rabies are in western Ontario, in the Waterloo-Wellington-Dufferin-Grey-Bruce area, and along the north shore of Rice Lake. The third quarter will tell us a lot more about whether fox rabies is still shrinking.

It is also important to remember that the raccoon rabies invasion actually occurred in the third quarter. The rabid raccoon in the second quarter, in Peterborough County, was infected with the Arctic fox strain, and occurred within a kilometer of the location of a rabid skunk in 1998.

*Charlie MacInnes
Rabies Unit
Trent University
Peterborough*

VERMONT 1999

Vermont baiting was done early this year. The reason was because of two rabies cases in the north-central part of the state, one within about 18 km of the Quebec border. This year's project is a big one, 195,000 baits, to be spread across northern Vermont to a point roughly half way from Newport to the New Hampshire border. From

Laura Bigler's perspective, the operation did not start on the right foot. As she left Cornell, the contract to make the whole thing possible had not yet been signed. The baits were to be delivered after 2000 on Friday, at which time she would be in Burlington to receive them. Somehow, the truck driver did not know this: he arrived on Thursday, and, finding no-one to receive the shipment, decided to take the load back to Georgia. Laura caught him, by telephone, in New Jersey.

Saturday, 24 July

OPG, piloted by Neil Ayers and Jason Karas, with engineer Dan Berndt, picked up Andrew Silver, Kim Bennett and myself at 0900, and we were in Burlington by 1100. Peter Bachmann and Lucy Brown drove down on Friday. We were met at the airport by Laura Bigler, the chef de mission, Peter Galbraith, the state epidemiologist for Vermont, and Bob Johnson, the state public health veterinarian, plus staff from the Vermont/New Hampshire USDA-Wildlife Services Staff.

We managed two flights in the afternoon, despite roving thunderstorms and spectacular clouds. We encountered a strange and novel problem: baits are supposed to be stacked on end in the trays. We encountered ten boxes where they were on their sides in the trays, and had to be hand stacked. The real problem was that this left us short of baits on the last day, because those boxes were only about half full.

Sunday, 25 July

Four flights were done today, and we thought of trying a fifth, but the afternoon thunderstorms were too prominent. Everything went well - Dennis Slate of Wildlife Services took

the easternmost flight, and had the pilot do a reconnaissance east to the Connecticut River and Connecticut Lakes. He wanted to check for areas of habitat that might support raccoons. He said that most of the country was too high, and even along the river there was little or no agriculture, so he expected raccoon density to be low. Kathy Nelson of Wildlife Services took her first flight as navigator, and came back smiling. However, she soon came in for a lot of ribbing. She is one of the team who answer the Vermont Rabies Hotline. The hotline received a call that a family out cooking in the back yard had received a bait within six feet of their barbecue. Barbecue jokes were "in" for the rest of the day.

So what is the Vermont Rabies Hotline? This is a service jointly sponsored by Wildlife Services and the Vermont Departments of Health, Fish and Wildlife, and Agriculture and Markets. The phone number is 1-800-FOR-RABIES. The line is manned by Wildlife Services, and is available 24 hours a day. The service was initiated in May of 1992, and is still considered a valued service. It handles 2500-3500 calls a year. The staff can answer a wide variety of questions about rabies, and in addition have all the relevant phone numbers for local Animal Control officers, nuisance wildlife trappers and many other relevant services, throughout the state. They are, of course, expert on telling callers what to do if they suspect they have a rabid animal on their property, how to get the specimen to the state lab for testing, etc. While I was typing this article into my laptop in the Valet Air Hanger, the cell phone which was the hotline rang. Beth Jones answered. A lady in Burlington had a sick turkey on her lawn. Well, said Beth, that can't be rabies because birds never get rabies.

Then she phoned the nearest Fish & Wildlife office to give them the address in case a game warden was interested in checking out the case. That is an impressive level of service.

I asked for a list of the call topics yesterday. They included a dog that found and chewed on a dead bat, an unvaccinated cat scratched a child, a "rabid" mouse running in circles, a skunk in a trap on a neighbour's property, a bat clinging to the outside of a window screen, a general question on bats, a skunk in a trap, people who tried to feed a starling they found on the road, a woman who thought she had a bat in her bedroom, a rabies bait found in the cow's feed bin, nuisance deer in the garden, a skunk in the yard biting on its own tail, a porcupine staggering around in the yard, a child bitten by a dog, should she have PET?, could they identify a snake the caller had seen?, and someone who had found a dead bat, should it be tested?? Well, a majority of the calls may have a connection with rabies, but what a range of topics they have to deal with!!

Monday 26 July.

The weather was the story for the day. Jason and I tried to do a flight along Lake Champlain, but the fog turned out to be too low on the hills, so we had to come home after dropping only 470 baits. We had to sit until 1300 for this low cloud/fog to burn off. After that we did three flights successfully. Actually we did four. Because of the uncertain weather, the plane took off with three flights in the navigation system, and enough baits to do the longest of those. They chose a flight, and as they finished it they realized that they had enough baits left aboard to do an adjacent flight, so they did that too. They landed in Newport to take on a few extra gallons of fuel

for safety. Considering that these flights were in the eastern part of the baiting area, this move probably saved almost 50 minutes of ferry time. I like people who think as they go along!!

Tuesday 27 July.

The day started well, and improved from there. We flew three flights, and the last started short of baits, and so, of course, ran out. But the unbaited area was mostly boreal forest, with little agriculture. We currently think there are few raccoons in such places. We cleaned up the ground facilities, took down the antennas, packed the plane, and headed for an early supper. Then we said farewell to the Wildlife Services crew, who headed home. Jodi Harvey, Animal Control Officer for the Burlington Police, guided us to an excellent restaurant, and we hit the hay early. The next morning we flew home.

*Charlie MacInnes
Rabies Unit
Trent University
Peterborough*

NEW FORMAT

Yes, the rabies reporter has changed a bit. The change was driven by the raccoon rabies invasion, which forced changes in the tables, and a software problem, which made us change from AmiPro to WordPerfect. Hopefully you will find the new tables a bit easier to read.

Unfortunately, the changes took time, as did major computer problems the day before I was due to go on holiday. Therefore, this issue is a bit skimpy, and the graphics are not up to normal standards. The problem then was

either to get the issue done quickly or to have it delayed until October. The latter was the less acceptable alternative.

In the next issue I will try to pick up the thread of how to reduce post-exposure treatments.

*Charlie MacInnes
Rabies Unit
Trent University
Peterborough*

The Rabies Reporter, a scientific newsletter about current issues in rabies research and control, is a joint effort of the Rabies Research Unit, Ontario Ministry of Natural Resources; the Food Production and Inspection Branch, Canadian Food Inspection Agency; the Ontario Ministry of Health; and the Geographic Information Systems Laboratory of the Department of Geography, Queens University, Kingston. Articles for future issues will be welcomed by the editor. Comments, letters, submissions and inquiries should be sent to:

The Rabies Reporter
Rabies Research Unit
OMNR
P.O. Box 4840
Peterborough, ON K9J 8N8

e-mail
charlie.macinnnes@mnr.gov.on.ca
or
macinnch@netrover.com
Also, visit our website at
<http://www.gis.queensu.ca/RReporte/r/mm.html>
or the rabies home page at
<http://www.mnr.gov.on.ca/rabies/rabmenu.html>

Animal Rabies Report: April to June 1999

[illegible]

Animal Rabies Report: April to June 1999

[illegible]

Animal Rabies Report: April to June 1999

Animal Type	Fox			Raccoon			Skunk			Other Wildlife			Bat			Dog			Cat			Livestock			Totals		
County or Region	#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative	
		99	98		99	98		99	98		99	98		99	98		99	98		99	98		99	98			
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																								0	0	0	
Regional Totals																											
Eastern														1	3									4	0	1	7
Central				1	1		1	1	2					1	1									8	2	3	11
Western	2	2					11	16	15							1	1					1	1	5	15	20	20
Southern													1	1	3									5	1	1	8
Northern																									0	0	0
TOTALS	2	2		1	1		12	17	17				1	3	7	1	1					1	1	22	18	25	46

