

The Rabies Reporter

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FALL BAIT DROPS 1997

I. NEW YORK

TO ERR IS HUMAN. TO REALLY FOUL THINGS UP TAKES A COMPUTER AND AN IMMIGRATION OFFICER HAVING A BAD HAIR DAY

My memories of the start of the 1997 baiting season are tangled, because that was the way it really happened. We had one load, 28,000 baits to drop in northern Ontario, so the plan was to take the first aircraft that had a bait machine installed, and go drop those baits while the next plane was being equipped for the New York bait drops. That was the plan when Andrew Silver, Kim Bennett and I headed out from Midhurst for the Sudbury airbase at 1300 on 9 September. We would drop the baits in the Kapuskasing - Cochrane area on the morning of Wednesday 10 September, and drive back south that afternoon. Roly Tinline and I talked a couple of times about where to put the baits, and Roly had the flight lines made up and shipped them to me. Just for safety, Roly sent a duplicate copy to Neil Ayers in Sudbury. That turned out to be a key move, and it set the tone for the rest of the week.

It takes an hour to drive from my home to Midhurst, and we were another hour along the way when I

realised that, although I had packed up my laptop just before noon, and set it out to go to the car, I never got it to the car. I had the computer we planned to use to upload the flights, and the maps, flight sheets and diskette of the waypoints were all carefully packed with it. Not to worry, Andrew had made a special trip the day before to pick up the new Rabies Unit super laptop, which was leased to provide full service flight planning. And we knew a second copy of the flight was already in Sudbury. We got to Sudbury after 1600, and while Andrew and Berj installed bomber panel and other bait machine components, Joe Spence and I moved the boxes of baits from the truck to tubs,

Turcotte, our pilot for the day, came across the tarmac from the weather office, and asked what we were up to. No sense, he said, the weather up north is terrible. We went on hold until noon, went to lunch with Bill and his wife, through a monsoon-style downpour, went back to check the weather, and gave up for the day. That was Wednesday gone. Sudbury had over 30 mm of rain on Wednesday!

Thursday dawned dark and wet, and went like Wednesday. Fortunately the Sudbury airbase had lots of computers tied in to MNR e-mail, so I had two days to catch up on correspondence. The forecast for Friday was better, but Andrew and I had to

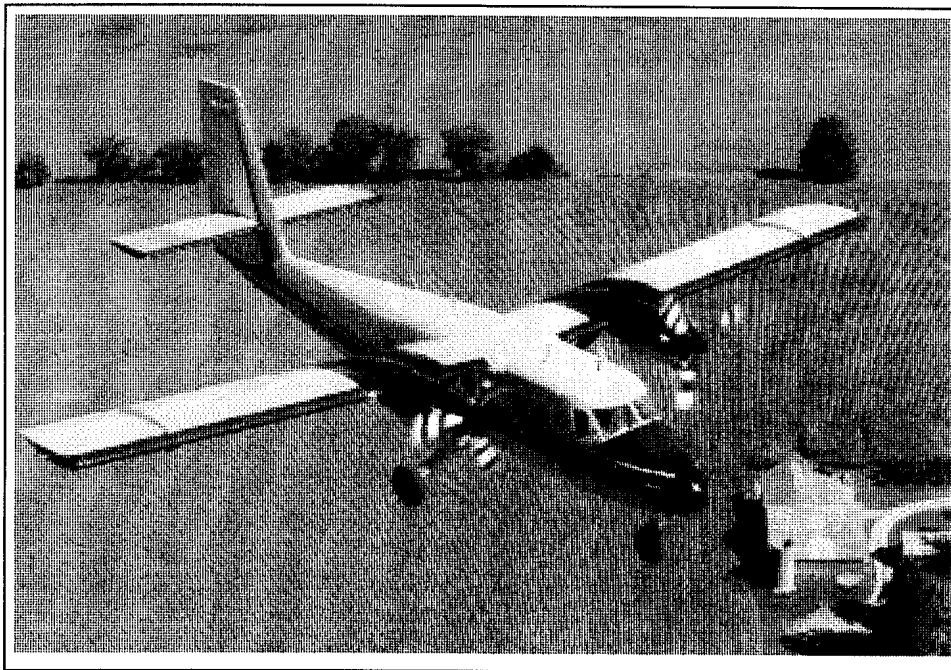


Figure 1. C-GOGB dropping baits near Stratford, Ontario

and then to the fire centre freezer. I pulled up a radar weather map on the computer, and it looked promising. So the three southerners went to the nearest motel, and made an early evening of it. By 0700 the following morning we had unloaded all the baits from the freezer, and moved them over to the aircraft, OPJ. Then the world fell apart. Smiling Bill

get back home to be ready to leave for the New York baiting at 1100 Friday. So we left Kim to ramrod a crew of engineers and firefighters. I got home at 2000, and was on the computer(s) rearranging files and software until 0130. I was up at 0600 and still working at 1030 when Andrew called that OGB had been delayed. A boost pump failed as they left Sault. Ste.

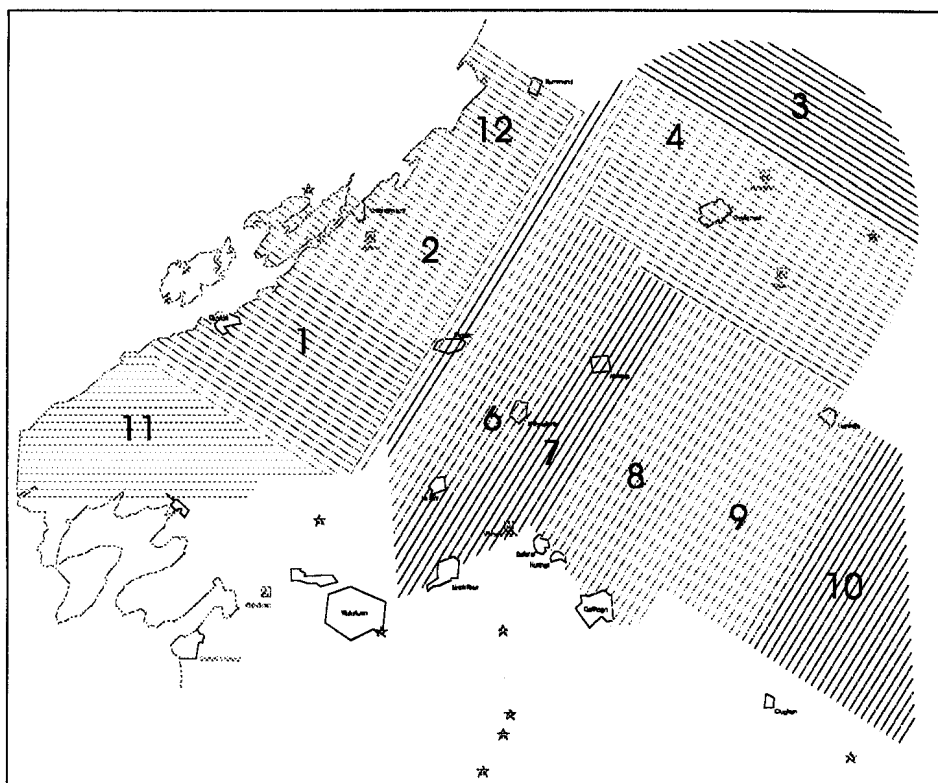


Figure 2 Flight maps for the Watertown, New York project.

Marie, so they had to turn back for service. New ETA was 1330. Meanwhile OPJ in Sudbury was still on the ground because the weather at Kapuskasing was still bad. Next bulletin was that OPJ was delayed when they finally were ready because the bomber panel on the bait machine started to smoke when they ground tested it. No matter that Andrew had ground tested it on Wednesday, and it worked beautifully! It was a good thing that OGB was delayed, because there was no way I would have been ready for 1100. As it was, I arrived at Buttonville at 1400, with the plane expected at 1330! No plane. They finally straggled in at 1530, and we were off for customs in Niagara Falls NY. We landed in Dunkirk at 1800, put up the radio antenna in typical Dunkirk weather, rain, and I got my feet wet sinking into soggy grass. But the forecast was good. OPJ was supposed to have dropped baits in the morning, and caught up with us at Dunkirk. When we got to Dunkirk, we heard that they only got back to Sudbury at 1930, so they were coming the rest of the way on Saturday morning. We ate dinner in the rain, but the

forecast was good, so I went to bed full of confidence.

At 0030 my phone rang. Would I come to a conference in room 217? Disaster had befallen the operation before a single bait was dropped. Dave Ball from the GIS lab at Queens had been turned back at the border. Poor Dave had been honest about why he was coming to the U.S., and the officer who was questioning him decided he was trying to work illegally in the U.S. Dave was told that if he tried to get into the U.S.A. elsewhere he would be arrested. Trouble was, Dave had all the flight plan files for the first two New York drop areas. Well, at 0100, after a long day, none of us was either bright or cheerful. Plan A was to have two Rabies Unit staff drive up to the border, meet Dave, and get a quick course on how to finish up the files to be uploaded into the aircraft. That would mean that people who had put in a long day Friday would drive for most of the rest of the night, and get back just in time to fly all day. I did not like plan A. Plan B was to have Dave's boss, Roly Tinline, drive down from Kingston after copying the needed files off Dave's computer. Same objections as Plan A,

driving all night after a long day at work does not pass the Health and Safety Committee. Plan C developed that, since OPJ was coming close by Dave's home in Georgetown, perhaps they could pick him up. Objection, Dave was not prepared to risk arrest. Plan D, why not have Dave give OPJ the disks? Dave did not have a computer with him, so he couldn't finish the Niagara flights. But at least we could get the Dunkirk flights going. So Neil Ayers was awakened at 0100 to phone one of the OPJ pilots to tell them to stop in Hamilton (Hamilton has full instrument landing facilities, so OPJ could come down there in poor weather. The trouble with that plan was that OGB would have to sit helpless on the ground in Dunkirk until OPJ got there with the disk, and that might take until noon. Volunteers from Chautauqua County were due at the airport at 0700! Roly Tinline was part of the telephone loop by this time, because of plan B. So he proposed plan E. He would go down his lab at Queen's early in the morning, post the Dunkirk computer files on the Queen's GIS lab ftp site on the internet, then finish the Niagara flights and post them too. Did we have the capability to download the files?? Well, my computer was supposed to have the software, but I had never tried it. Roly told me of some sample files that I could download as a test, and at 0200 I repaired to my own room to try. It worked!! So I was up at 615 to be ready to phone Dave at 0700 to get him to Hamilton, and to download the computer files. Only when I paid my hotel bill did we learn the cost of this manoeuvre, as the long distance charges were \$150US. My computer refuses to recognise the ATT dialling sequence of the new MNR credit cards.

On Saturday, the weather was better, and everything began to work. In fact, the only minor glitch was when, at 1000, Dave called from Hamilton asking where the plane was, and within minutes one of OPJ's pilots called to ask where Dave was. Before Dave was back home from Hamilton, the senior administrator of Chautauqua County had phoned U.S.

Immigration, sent them the required documentation, and gave Laura a phone number and name to pass to Dave to clear up the whole mess. Is it only coincidence that this man, in a previous career, had been an immigration lawyer?

Last year Dunkirk took 2 days because of bad weather. This year, despite all the start-up problems, we completed 5 flights by 1700, and were eating dinner before sunset. That set us up to do the 4 Niagara County flights on Sunday with time left to get to Watertown during the afternoon. Volunteers in both places were magnificent. The hospitality was great, and we were done in record time. But the fact that we pulled it off on time despite the near disasters

Monday in Watertown the sun was struggling through thick mist and low cloud. We got clearance to fly Fort Drum, so both planes were to head in that direction. OPJ had mechanical problems before they took off, and were delayed 45 minutes. In those 45 minutes, OGB flew 2 lines under difficult conditions. Fort Drum asked us to maintain 500 feet, and the bottoms of the clouds seemed to be somewhere between 50 and 100 feet below us. So Garry slowed down to 90 knots. Then the Fort asked us to skip the next 4 lines, because they had a tank exercise in progress, using live ammunition. OGB went home. The rest of the day was going well until OPJ radioed in that they had smoke in the cabin, and were coming home. After they turned off the bait machine, the smoke got thicker, so Eldon headed directly back to the airport. When Berj took apart the cockpit bulkhead, it turned out that a diode which never fails had died, and a piece of heavy wire fried with it. Berj said that, from the look of it, this was an original part installed when OPJ was built in 1970. In order to get the job done, the Air Service dispatched a King Air to deliver this minor, but essential, part. They also brought their top electrician, and a good idea it was, because he found that there was more damage than first thought. Meanwhile, the flight planners picked up all the odds and ends of missed lines,

and arranged the schedule around the glitches, to make sure we could finish bait drops late Tuesday and leave for home on Wednesday morning. Imagine the New York project finished in

They told us where other aircraft were, and made sure we saw each other. When our pilots described our flight lines, they asked one or two questions, and then they knew exactly

RIDE A BAITING FLIGHT.

0715 22 Sept. Arrive at Stratford Airport. First stop is to read the blackboard in the ready room. I am posted as navigator on second flight on OGA. I help load baits for the first flights.

0740 Climb into the cockpit beside Bill Turcotte. Start filling out the checksheet for the flight. This sheet takes the navigator all the way through what is needed to get the bait machine running correctly. Ask the crew to verify the number of tubs of baits at the start

0745 OGA is off on first flight.

1100 ETA on OGA is now 1115. That means we will be off at 1130. Flight time is estimated at 2.6 hours. Pilot is Bill Turcotte, crew is Charlie MacInnes (navigator), Brian Stapleton and Leslie Hunt.

1130 We should be ready to go. The ARNAV is loaded for all of today's flights. However, this baiting machine is brand new, and there are some adjustments to be made.

1145 Finally start engines. Off the ground at 1150.

1159 Start dropping baits. Our flight is between Meaford and Collingwood, covering a block bounded on the north by Georgian Bay.

1203 Trouble: the bait machine is jamming frequently. Most of the time I could clear the jam by switching the power on and off. Brian said he saw a lot of baits going out two at a time. After 20 minutes of struggling we turn for home. Land at 1230.

1345 Andrew Silver and Charlie Brown finish modifications to the bait machine, and we are ready to complete the flight. (This is a brand new bait machine, and this was only its second flight.

1405 Resume baiting up near Collingwood. We re-flew part of a line from the first try, to be sure that the bait machine was working. It was. The rest of the flight went well, except that the flying was rough. It was especially bumpy when we flew over the ski hills. The wind coming off Georgian Bay swirls up the hills and makes big bumps.

From a navigator's view it was nice country to look at, but very little off-time, except where the Collingwood subdivisions cluttered an otherwise beautiful landscape.

1604 Tell the crew the good news, that we are heading down the long last line to home. Only 3996 baits to go.

1616 Tell the crew that there are only 4 minutes of baiting left, so they can stop baiting. That way, the belt will be empty when we land, making cleanup easier.

1617 Finish up the paperwork. Ask the crew how many tubs and trays of baits are left, record the number of baits logged on the counter, etc.

1626 Land at Stratford. As soon as the propellers stop turning, the fuel hose is out, the empty tubs and trash are being off-loaded, and a dolly loaded with baits for the next flight is on the way.

minimum time!!

A word is due here for a very effective and pleasant group of military personnel, the air control staff at Wheeler SAC airbase, part of Fort Drum. Their language was clear and precise, their instructions were easy to understand, and I always felt that they were looking out for everyone.

what we were doing. They wanted the baits put out (Fort Drum paid for enough baits to cover the whole Fort.), and they helped us every way they could. When Eldon reported smoke in the cabin, they were instantly ready to bring him in to land on their field, which was the closest.

II. STRATFORD GOOD WEATHER !

Monday 22 September was clear, still and cool. There was no cloud or ground fog. That was not what we have learned to expect. Baits were loaded and planes were away before 0800. The two flights to military reservations were first up, and it was good to have them out of the way. There were a few minor problems setting up communications with their range officers, but those were soon worked out.

One result of all the office moves left us with an awkward problem. The telephone number on the baits was the old rabies unit number at Maple. We kept the number rather than incur the expense of printing over a million new labels. The only permanent number we had was Chris Nu-

nan's office in Peterborough. Unfortunately, Chris was not available to take these calls, so at the last minute the calls had to be forwarded to the airport number in Stratford. First thing Monday morning the faxphone on that line was not ringing incoming calls, but that was soon fixed. However, the normal workday traffic on that one line was such that the public may have had to try several times before they could get to us. Such are the wonders of the modern electronic office!

Monday was an excellent starting day. The weather was beautiful, if maybe a bit windy for green (literally!) crews. The total for the day was 201,240 baits, achieved despite the inevitable teething problems (see inset box). By the end of the day rain was threatening, but we went to bed dry.

The biggest problem encountered on Monday was that the dumpsters had not arrived. Trash control, in the air and on the ground, is very important. The Ontario baits are loaded 156 to a cardboard tray, with cardboard spacers between each row of baits. At bait rates of about 3/second, a tray is emptied every 52 seconds. In the swaying cabin of the aircraft, it is essential to dispose of all this cardboard carefully. The problem was even more acute in New York, where the larger baits are only 120/tray, and the drop rates were up to 4.5 baits/second. That empties a tray every 27 seconds! On a flight carrying 24 tubs of baits, there will be 192 trays emptied. Good crews pack the trays and spacers separately into empty tubs. If that is done, the garbage comes off quickly, and the target of a 15-minute turnaround is easier to achieve. If it is fumbled, it

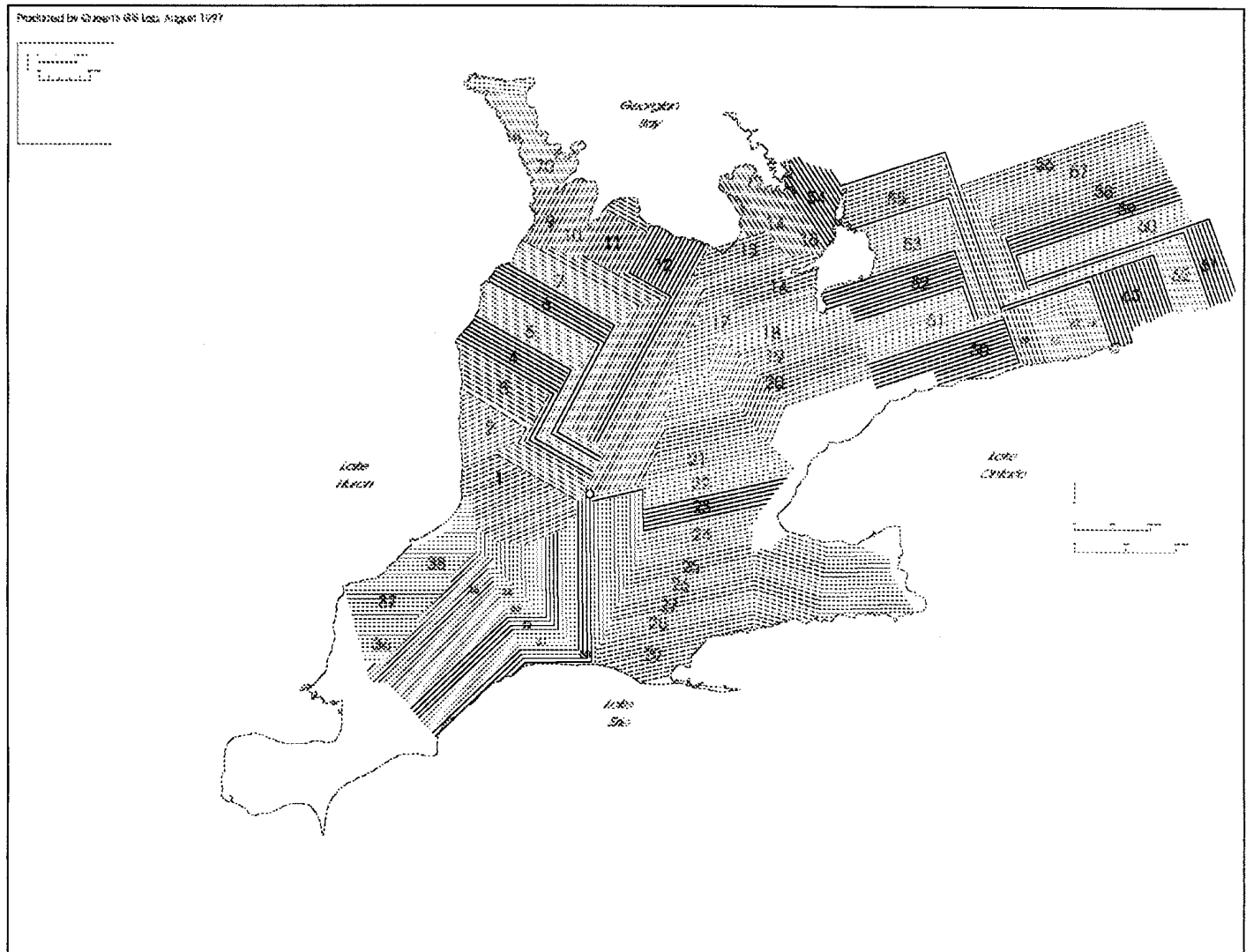


Figure 3 Map of the flight lines in southern Ontario, 1997

even becomes hard to move around in the plane. When one crew member becomes seriously airsick, the trash builds up! In addition to the trash generated in flight, the baits come packed in cardboard cartons, and must be transferred to tubs before the flight. We found years ago that the cartons are too likely to tear when handled in the aircraft, and, of course, they generate even more trash. All of this cardboard coming off the aeroplanes requires a large dumpster each day.

Texans will enjoy hearing that this year all Ontario crews have adopted the Staley manoeuvre. In order to make the loading of the belt easier, one baiter sits on a tub on the right side of the aircraft, facing the second baiter who sits on the regular bench on the left side. This arrangement was pioneered by Col. Leo Staley of the Texas National Guard, one of the first and most devoted of the Texas crew.

Tuesday started with some promise. There was no water on the Festival Inn parking lot, and another experienced baiter added "I could see right across the lot, too"! We were all out at the airport and underway by 0645, and the first flight took off into a grey dawn sky. However, he came back within minutes, saying the visibility was not good enough. Within minutes the rain started at the airport, and soon was pouring industriously. Miraculously, card games and paperbacks materialised in the operations room, and we waited it out. After 2 hours, I went into Stratford to get some film processed. I took a radio and 2 Texan volunteer baiters and went into town. We came out of the photo shop to see sunshine. I called the base, but there was no reply on the radio. We rushed back to the airport. My flight was already gone, but Nora Angstead ran to the tarmac and just caught hers. From that point on () it was "all ops normal", and we managed 138,528 baits for the day. The front coming through brought lots of wind behind it, so flying was rough again.

Wednesday morning was clear and still, with frost on the windshields. The first plane was away before 0700, and by the end of the day it

became evident that we would finish the whole Stratford drop on Friday. Planes worked hard, crews made quick turnarounds even when there were 3 planes in at once. Organisation paid off!!

Flying on Thursday was mixed. The weather threatened. There were rain squalls and even lightning, but most flights went as planned. OGB had to turn back from a flight over the Caledon Hills, when heavy rain reduced forward visibility to near zero. I was on OGA on lines north of Hamilton at the time. We went into some thick stuff on our first line, and almost turned back, but the lines took us back west for a while, and when we came back the rain had moved east beyond where we were going.

We had volunteers helping with the drops this year. Shirley Tinnin and Nora Angstead came, at their own expense, from Texas. Shirley is the head of Animal Control for Galveston County, Nora is the Animal Control Officer in Rosenberg, south of Houston. We met when they volunteered to take part in the Texas bait drops. Both flew as much as they could, and were good company the rest of the time. We all coached Shirley carefully on the correct use of the Canajian eh? - eh? By Saturday she was really getting good, eh? And that wasn't the only souvenir the two took back to Texas, eh? Also, they have both signed up for next year already. Another volunteer was Kathy Delorme (nee MacDonald). Kathy has been part of the Rabies Unit since the 1989 carcass collection, and established a reputation for industry, reliability, and friendliness. When she married after the 1997 Texas expedition, everyone wished her and Roch well. But, like Phil Harris' cat, she just couldn't stay away, so she took vacation to work with the team for a week. On strength for the first weekend was Cindy (McLeod) Hesp, also on leave from a full-time job. And on the second weekend, Amanda Dam, in her last year of high school, and looking for direction in future career, joined the team. It does wonders for morale when people give their time because they believe the project is that worthwhile.

III. SECOND TUESDAY COMPUTERS STRIKE AGAIN OPERATOR ERROR??

On Friday we must have violated the Murphy's Law which states "If everything is going smoothly, maybe you have overlooked something." Everything looked bright. On Saturday we completed all the regular flights except those in eastern Ontario and Quebec. However, between extra baits from Ayerst, 16 tubs returned by the urban hand-baiting crew, and "off-time" baits, we turned out to have 165 tubs of baits for extra flights. Some of those happened as a result of computer file problems. Last year we baited the whole of the Bruce Peninsula, unlike the previous 2 years, and in response to 5 rabid foxes close to Tobermory. The peninsula was on the maps for this year until a computer problem forced our flight planners to call up an overall flight map from early last year. No Bruce Peninsula was on that version, so none was done.

The real problems began when Sunday was a beautiful day, but there was poor weather coming. The original plan was to fly to Cornwall, do the 3 Quebec flights in the morning, do the 3 eastern Ontario flights in the afternoon, and come home. Trucks would take the second load of baits and second crews to Cornwall, and bring the crews and empty tubs back to Peterborough. Unfortunately, I could not raise my Quebec connection to get observers aboard for flights on Sunday. Like sensible normal people, they were away for the weekend, since, on Friday, I had said we would fly on Monday. If we did the eastern Ontario flights on Sunday, but Quebec on Monday, it would incur 2.5 hours of extra ferry time on each of 3 aircraft, at \$800.00/hour. But, due to the weather, that is what we did, with one hitch. Monday the weather closed in, but not until after the Quebec personnel were on the road for Cornwall. I drove to Cornwall to meet them, and arranged everything for (hopefully)

the next day. Tuesday the weather was still poor, but we could, and did, fly. However, our flight planner had to change the start and ends of the flights. When we taxied out of Cornwall airport, with Quebec observers aboard, it became evident that there was a major problem with all the flight plans. Cross-consulting between the flight sheets and the pilots' maps showed that the waypoints were almost 6 degrees of longitude too far west. A quick telephone conference with Peterborough identified the problem: in tidying up the flights someone (who shall remain nameless) had forgotten that, whereas eastern Ontario is in UTM Cell 17, Quebec is in Cell 18. AutoCad works in UTM, and then special software converts to Lat-Long. UTM values are unique only within cells, so we had the Lats and Longs for the wrong cell. The correct values were quickly calculated, faxed to Cornwall, and hand-entered. But, 1.5 hours were lost. However, except for some rain showers which reduced visibility, the Quebec flights went well.

Next hitch: we had planned to do 2 extra flights just west of what had been done on Sunday, but there wasn't enough daylight left for that. However, two trucks with baits and crews were already on the road. Fortunately they had cell phones, so they were stopped half way. However, Peter Bachmann had to come to Cornwall anyway, because he was the only person who had the Z-license required to drive the fuel truck back to Peterborough. (The fuel truck had been sent down from Sudbury the week before: there is no jet fuel at Cornwall airport, and the Air Service had a full bowser which they wanted emptied before winter.)

Well, Wednesday was a better day, and we finished eastern Ontario, including a completely new flight. We tried to put baits in a second area in Quebec, but their public relations people said they could not advise everyone that quickly. (Remember, these were baits that were identified as available only towards the end of regular baiting.)

Late Wednesday afternoon we scrambled on the logistics of getting the last "extra" flights done, one on the Bruce Peninsula and two between New Liskeard and Cochrane. The planes left first thing Thursday morning. Except for the crews on these last three flights, it was all over for another year except the cleanup, paperwork, and answering the last calls from the public.

Note: I hoped to present all the flight zones as they were finally flown in this issue of the Rabies Reporter. Unfortunately, the computers struck again, and not all maps could be translated from one program to another. Therefore we have only two samples to illustrate this article.

*Charlie MacInnes
Rabies Unit
Stouffville*

RABIES IN ONTARIO THIRD QUARTER 1997

The third quarter saw the very low rabies levels continue in southern Ontario. There were three rabid foxes during the quarter, bringing the total for the year to four. One was near Stratford, another near Drayton, Wellington County, and the third near Dunsford in Victoria County. Significantly, each of the counties which has produced a rabid fox this year had one or more rabid skunks during the six months prior to the fox. This is some of the strongest evidence that skunks can prolong the persistence of fox rabies. An important question now is how to decide when we can stop baiting. This evidence suggests we should continue until at least a year after the last rabid skunk. Fortunately, however, there have been no additional rabies cases in the Renfrew area, following the one skunk last November. However, there were some rabid skunks just across the river in Quebec, in the farmlands south of Shawville.

The average for the first three quarters of the year during 1980-89 was 1363 total rabies cases, with 671 of

those in foxes. The current totals therefore represent a gross reduction of 95% from the levels before our control efforts began. However, the reduction of terrestrial rabies in southern Ontario has been even greater. Of the overall 70 rabies cases this year, 10 were foxes in northern Ontario, and 24 were bats. That leaves 36 rabid terrestrial animals in southern Ontario. That indicates that within the area which has been baited, rabies in terrestrial species has been reduced by almost 99%.

A clear indication that rabies in terrestrial species is nearly gone is that rabid bats outnumbered all terrestrial species combined. During 1980-89, bats would have been less than 2% of all cases. There were two rabid bats in the northwestern part of the province, one little brown bat, and the silver-haired bat which was the subject of the story in the last issue.

There were no new rabies cases in northern Ontario during the quarter. Hopefully, the outbreak up there is dying down, and will no longer threaten re-invasion of southern Ontario. Note that this drop in rabies positive foxes occurred before the bait drops were done in the north.

*Charlie MacInnes
Rabies Unit
Stouffville*

A WING AND A PRAYER

A year ago the Rabies Unit needed starlings for safety testing the new recombinant adenovirus rabies vaccine. The best way to get starlings which will live equably under laboratory conditions is to hand-rear them from nestlings, although that is easier said than done. Kathy MacDonald pioneered the work in 1996. She read all she could find, and talked to anyone who had experience. Both the local Agriculture and Agri-Food Canada veterinarian, Dr. Willard Schantz, who keeps a variety of birds, including tropical starlings, as a hobby, and the Metro Zoo staff were a great help. Kathy and Scott Taylor raised 38 starlings that year, and

learned a lot in the process. This year Scott Taylor and Nancy Eaton took up the project again at Midhurst, but when they needed help, Bev Stevenson was assigned to raise some second brood birds. What follows is Bev's account of her experiences.

Like most people caught in the move from Maple to Peterborough, I was working out of a friend's house during the transition. Everything seemed to be going smoothly until I was asked to become an instant mother. Forty adult starlings were required to safety test the new raccoon rabies vaccine. In order to ensure that we had 40 birds for testing, 60 birds were to be raised to maturity. It seemed like a simple request but there were many complications.

After a few days of locating nests and recruiting young birds, I realised that some individuals were more suitable than others. Birds obtained too young did not have the strength to survive my captive parenting abilities. Birds which were too old when they were removed from the nest had to be force fed because they would not eat. The ideal subject was one which was just starting to feather out, did not yet have its eyes open and was about a quarter of its mature size. These birds eagerly accepted artificial feeding and became accustomed to people and an enclosed environment as they developed.

Finding birds to recruit was not an easy task. I spent many hours sitting and watching starlings fly about to try and locate their nest. Once the eggs hatch, mother starling begins feeding her young babies every few minutes. The easiest way to determine if the eggs have hatched without disturbing the nest is to sit back and relax. If an adult bird does not return to the nest within a few minutes, she is not feeding young ones. If I disturbed a nest with eggs it was often abandoned. Overeagerness to check a nest to see if they have hatched can result in the loss of an entire brood and the need to locate another nest.

Getting to the nest once you find it is not always simple. If the young have already hatched, mother starling will return to the nest unless it is completely demolished so caution is not a

priority. Unfortunately, starlings are cavity nesters. The smaller and the more inaccessible the cavity, the better. I spent a great deal of energy removing boards from the eaves of old barns or houses in an effort to obtain young birds. The most disappointing moments occurred when I was 10 m up on a ladder in windy conditions and after precariously removing some boards or chopping a larger hole in the tree, I discovered that either the birds were too immature or they were just out of reach.

After rearing the starlings to a suitable size, I called in reinforcements. I eagerly handed my "family" over to Scott and Nancy at Midhurst for them to take care of for the duration. Several days of rising at 6:00 a.m. for the first feeding and going to bed at 10:30 p.m. after the final feeding was wearing me down. When the birds were first obtained, they had to be fed every 30 minutes. I immediately tried to increase the duration between feedings as this was too enormous of a task for one person. By the end of the first week the birds would get fed every two hours during the day. Early morning and late night feedings were left at one hour intervals to make sure the birds had sufficient reserves to survive the night without feed. Although mother bird only feeds from dawn til dusk, I had to feed for a longer duration because the young birds were under a heat lamp and did not settle down as much at night as they would have in the wild.

The change in location and feed mixtures caused considerable stress to our fledglings and many were lost. I had to locate and capture more young birds. Fortunately when young are removed from a nest, the breeders will often attempt to raise a second brood in the same nest. Although this made location and capture easier, there were still problems. The first nesting had depleted mother starling's energy reserves. The second brood usually contained fewer birds and they were not as strong. After one week in captivity, I still had to feed them hourly. The second brood was also more apt to have problems with lice and mites. These parasites would survive in the

nesting material from the first hatching and would infest the second group as soon as they were born. The birds were too young to be treated with anything and too weak to handle the stress. Dehydration was evident so more water was mixed with the feed. The only options were to remove and kill the lice by hand or do nothing and hope that the parasites wouldn't harm the young starlings too much.

The greatest disappointment of losing any of the young birds was realising how much effort had been involved in actually capturing the birds and rearing them. My only reward was knowing that my newly acquired feathered family were eating on their own and doing well. (I will also enjoy taking off the overtime acquired from parenting and it will be spent doing anything that doesn't involve birds.)

*Bev Stevenson
Rabies Unit
Teeswater*

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 of Agriculture Canada; The Ontario Ministry of Health and the Department of Geography, Queens University, Kingston.. Articles for future issues will be welcomed by the editor. Comments, letters, submissions and enquiries should be sent to: The Rabies Reporter, Rabies Research Unit, Ontario Ministry of Natural Resources, P.O. Box 7000, 300 Water Street, Peterborough, Ontario. Telephone: (905) 640-6832. Fax: (905) 640-4713. e-mail: macinnch@netrover.com. Also, visit our home page on the internet, at <http://www.gis.queensu.ca/RReport/mm.html>

Animal Rabies Report: July to September 1997

Animal Type County or Area	Fox		Skunk		Other Wildlife		Dog		Cat		Livestock		Total	
	#	Cumulative	#	Cumulative	#	Cumulative	#	Cumulative	#	Cumulative	#	Cumulative	#	Cumulative
		97		96		97		96		97		96		97
Eastern														
Stormont													0	0
Dundas													0	0
Glengarry													0	0
Prescott													0	0
Russell					1	1							0	0
Carleton					3	4	2						1	1
Renfrew													3	4
Lanark													0	0
Grenville					1	1							1	1
Leeds													0	0
Frontenac					1	2							1	2
Lennox-Addington													0	0
Central														
Hastings					3	1	1	1					1	4
Prince Edward													0	0
Northumberland								1					0	0
Victoria	1	1		1	2	1							0	1
Haliburton													2	3
Peterborough		1	2	3	11	1	1	1					0	0
Durham			2	3									3	4
York Region													2	3
Scarborough			1	2									0	0
East York													0	0
City of Toronto													1	2
City of York													0	0
North York													0	0
Etobicoke													0	0
Simcoe							1						0	1

Animal Rabies Report: July to September 1997

[illegible]

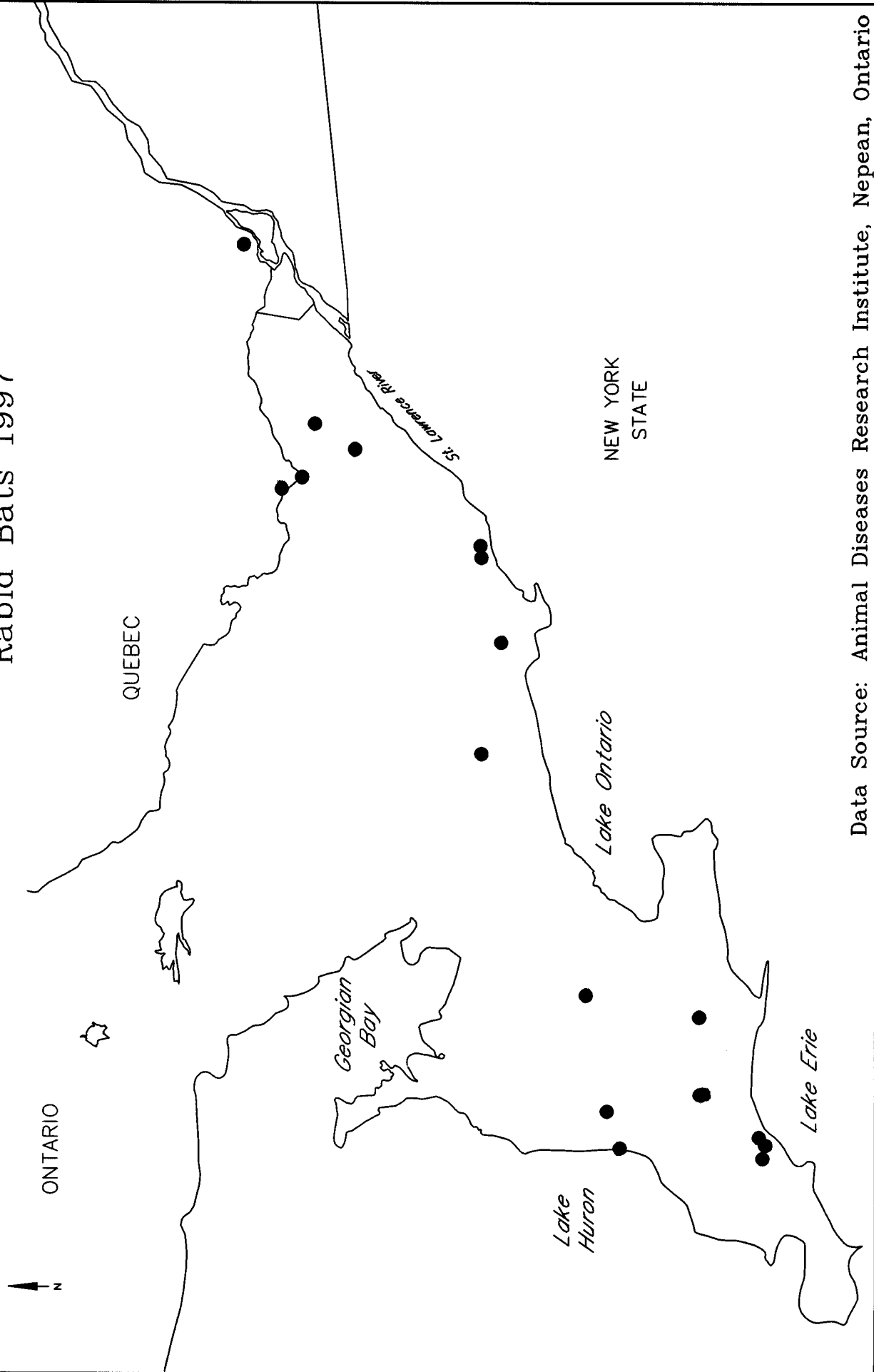
Animal Rabies Report: July to September 1997

Animal Type	Fox			Skunk			Other Wildlife			Dog			Cat			Livestock			Total		
County or Area	#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative		#	Cumulative	
		97	96		97	96		97	96		97	96		97	96		97	96		97	96
Northern (continued)																					
Thunder Bay																			0	0	
Rainy River																			0	0	
Kenora							2	2											2	0	
Subtotals																					
Eastern							6	8	2										6	8	
Central	1	1	1	6	10	15	2	2	4										9	13	
Western	2	2	12	2	14	27	2	3	1		1		3	0	4	12	6	25	55	55	
Southern			4	3	3	11	8	9	7			1				3	11	12	26	26	
Northern		10	9				2	2											2	12	
Totals	3	13	26	11	27	53	20	24	14	0	1	1	1	0	1	3	0	4	15	34	
																			70	112	

Livestock this quarter: None

Other wildlife this quarter: 17 big brown bats; 2 little brown bats; 1 silver-haired bat

Rabid Bats 1997



Data Source: Animal Diseases Research Institute, Nepean, Ontario

