

17 November 2008

New York State Department of Environmental Conservation
Division of Fish, Wildlife and Marine Resources
625 Broadway
Albany, NY 12233-4752

Attn: Special Licenses Unit

Re: License to collect or possess #1279: Dr. Melville B. Fenton

Dear NYSDEC:

The purpose of this letter is to fulfill the data reporting requirements of our license to collect or possess #1279 and to request that the license be renewed for 2009.

This letter summarizes activities related to the collection and handling of little brown bats (*Myotis lucifugus*) on the Upper Hudson River between May 8 and August 8, 2008 by Dr. M.B. Fenton, Y. Dzal, N. Veselka, and D. Dahrouj. The original permit specified radio tracking little brown bats and eastern pipistrelles, but, with DEC approval this was changed to just little brown bats and big brown bats. In the final analysis we did not catch any big brown bats after this approval had been given. Therefore our report deals only with little brown bats.

We tracked 40 little brown bats between river section one and three of the Hudson River for a total of 49 days (303 bat nights). We captured bats for radio-telemetry in mist nets set in known foraging areas and at known roost sites. All 40 bats we radio-tracked roosted in buildings: 20 in the Fort Miller church (river section one); 3 in the Schuyler House (river section three); 17 in the Adirondack School auditorium (river section three).

For each little brown bat we captured, we recorded mass, gender, reproductive status, and left forearm length. Following this, we outfitted each bat with a radio transmitter weighing 6% or less of the bat's mass at capture. We used surgical cement to attach radio transmitters to the bats, placing it between the bat's scapulae. We used bats with radio tags to locate their roosts and foraging areas. The tracking data are presented in the attached Tables 1-4.

All bats that were captured and released appeared healthy. On 29 July in collaboration with colleagues from NYDEC, we captured 50 little brown bats, photographed their wings of 50 little brown bats. The purpose of this work was to look for signs of white nose infection. Copies of the photographs were provided to DEC.

Table 1. Tracking data for *Myotis lucifugus* captured and radio-tagged in Fort Miller, New York (43°09'49.1"N, 073°34'55.7"W); (means $\pm$ SD)

Bat	Date captured (d/m/y)	Sex	Reproductive status	Mass (g)	Date of last signal (d/m/y)	# of nights tracked	Roosts used	Time of first emergence (min. after sunset)	First foraging time (min.)	Night roosting time (min.)	Distance travelled to foraging site (miles)
1	02/06/08	F	pregnant	7.9	10/06/08	9	barn	52 $\pm$ 18	118 $\pm$ 96	100 $\pm$ 60	1.39
2	02/06/08	F	pregnant	9.5	07/06/08	6	barn	39 $\pm$ 5	177 $\pm$ 37	196 $\pm$ 85	0.43
3	02/06/08	F	pregnant	6.3	09/06/08	8	forest	n/a	87 $\pm$ 45	140 $\pm$ 63	0.74
4	02/06/08	F	pregnant	8.2	05/06/08	4	barn	38 $\pm$ 7	230 $\pm$ 6	51 $\pm$ 62	0.43
5	03/06/08	F	pregnant	9.5	03/06/08	0	n/a	n/a	n/a	n/a	n/a
6	03/06/08	F	pregnant	9.4	07/06/08	5	forest	n/a	48 $\pm$ 40	n/a	0.89

Table 2. Tracking data for *Myotis lucifugus* captured and radio-tagged at Schuylerville, New York (43°05'44.7"N, 073°34'54.3"W); (means $\pm$ SD)

Bat	Date captured (d/m/y)	Sex	Reproductive status	Mass (g)	Date of last signal (d/m/y)	# of nights tracked	Roosts used	Time of first emergence (min. after sunset)	First foraging time (min.)	Night roosting time (min.)	Distance travelled to foraging site (miles)
7	28/06/08	M	n/a	7.2	10/07/08	14	house	22 $\pm$ 19	201 $\pm$ 69	n/a	1.2
8	28/06/08	M	n/a	6.0	07/07/08	9	forested area	n/a	120	n/a	0.57
9	28/06/08	M	n/a	5.8	28/06/08	0	unknown	n/a	n/a	n/a	n/a

Table 3. Tracking data for *Myotis lucifugus* captured and radio-tagged at the Adirondack School, Greenwich, New York (43°07'14.6"N, 073°34'39.0"W); (means $\pm$ SD)

Bat	Date captured (d/m/y)	Sex	Reproductive status	Mass (g)	Date of last signal (d/m/y)	# of nights tracked	Roosts used	Time of first emergence (min. after sunset)	First foraging time (min.)	Night roosting time (min.)	Distance travelled to foraging site (miles)
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10	16/07/08	M	n/a	7.7	26/07/08	10	auditorium	18 ± 4	129 ± 18	n/a	1.41
11	16/07/08	F	n/a	7.2	22/07/08	7	auditorium	24 ± 11	146 ± 46	n/a	1.03
12	16/07/08	M	n/a	7.6	22/07/08	7	auditorium	40±18	89 ± 34	60±49	0.48
13	16/07/08	M	n/a	7.2	22/07/08	7	auditorium	21 ± 0.005	65	n/a	0.35
14	16/07/08	F	lactating	7.2	28/07/08	13	auditorium Lock 5	20 ± 13	111 ± 26	330 ± 42	0.31
15	16/07/08	F	lactating	8.2	19/07/08	4	auditorium	50 ± 0.02	85 ± 14	n/a	0.7
16	16/07/08	F	lactating	7.0	16/06/08	0	n/a	n/a	n/a	n/a	n/a
17	16/07/08	F	lactating	7.6	25/07/08	10	auditorium	25±8	128±28	66±27	0.7
18	16/07/08	F	lactating	6.7	27/07/08	12	auditorium/?	25 ± 0.003	59 ± 18	n/a	0.43
19	16/07/08	F	lactating	7.2	18/07/08	3	auditorium	25 ± 4	120 ± 16	290 ± 9	0.16
20	16/07/08	F	post- lactating	7.7	26/07/08	11	auditorium	21±15	236±53	50±8	0.73
21	16/07/08	F	post- lactating	7.2	23/07/08	4	?/auditorium	42 ± 0.01	84 ± 15	n/a	0.76
22	16/07/08	F	post- lactating	7.4	23/07/08	8	auditorium	33 ± 13	177 ± 41	n/a	0.77
23	16/07/08	M	n/a	6.2	28/06/08	0	n/a	n/a	n/a	n/a	n/a
24	16/07/08	F	lactating	7.1	24/07/08	9	auditorium	37 ± 8	123 ± 5	296 ± 23	0.78
25	16/07/08	F	lactating	7.9	20/07/08	5	auditorium	45 ± 19	126	254 ± 16	0.67
26	16/07/08	F	lactating	7.6	24/07/08	9	auditorium	27 ± 0.003	149 ± 60	258 ± 46	0.76

Table 4. Tracking data for *Myotis lucifugus* captured and radio-tagged in Fort Miller, New York (43°09'49.1"N, 073°34'55.7"W); (means ± SD)

Bat	Date captured (d/m/y)	Sex	Reproductive status	Mass (g)	Date of last signal (d/m/y)	# of nights tracked	Roosts used	Time of first emergence (min. after sunset)	First foraging time (min.)	Night roosting time (min.)	Distance travelled to foraging site (miles)
27	29/07/08	F	n/a	7.8	05/08/08	4	barn	33 ± 0.003	170 ± 22	n/a	1.08
28	29/07/08	F	post-	7.0	11/08/08	14	barn	31±18	226±128	n/a	0.47