

Table 1.1-- 2006 Small mammal captures in 4 Ecosystems on Guthrie-Bancroft Farm, Lincoln, Vermont, compared to previous years' captures. 2006 data are in blue.

Ecosystem (ES) No.	1				6				14					20					All	
	well-drained mesic red oak hw forest				seepy terrain rich northern hw forest				poorly drained spruce-fir northern hw forest					alder swamp/sedge meadow edge of former beaver pond						TOTAL
Year:	2001	2002	2005	2006	2000	2002	2005	2006	2000	2001	2002	2005	2006	2000	2001	2002	2005	2006	2000	
No. of nights trapped	4	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	12
No. of Traps	32	56	62	62	52	58	62	62	52	30	59	62	62	20	28	24	62	62	248	
Trapnights	128	168	186	186	156	174	186	186	156	120	177	186	186	60	84	72	186	186	744	
Shrews																				
<i>Blarina brevicauda</i>	5	3	13	2	8	8	1	6		12	2	8	6		6	5			14	
<i>Sorex fumeus</i>									2			1	1						1	
<i>Sorex cinereus</i>		3	5	1	1	5				1	2	3	7				1	2	10	
Rodents																				
<i>Peromyscus sp.</i>	44	19	29	25	31	25	21	30	12	19	19	18	25	2	13		2	4	84	
<i>Napeozapus insignis</i>			3			2				3	1	2	2	1		1	14	1	3	
<i>Zapus hudsonius</i>														3			4	3	3	
<i>Crotus pennsylvanicus</i>										1				3	3	3	23	1	1	
<i>Microtus pinetorum</i>				1															1	
<i>Myodes gapperi</i>	4	3	32	36	7	5	20	18	10	13	10	38	27		3		5		81	
<i>Synaptomys cooperi</i>												1								
<i>Tamias striatus</i>	1	1	1	1				1			1								2	4
<i>Tamiasciurus hudsonicus</i>															1					
<i>Glaucomys volans</i>						1														
Carnivores																				
<i>Mustela sp.</i>								1					1			1	1	2	4	
No. of Species	4	5	6	6	4	6	3	5	3	6	6	7	7	4	5	4	7	7	12	
No. of Captures	54	29	83	66	47	46	42	56	24	49	35	71	69	9	26	10	50	15	206	
Trap Success (%)	42.2	17.3	44.6	35.5	30.1	26.4	22.6	30.1	15.4	40.8	19.8	38.2	37.1	15.0	31.0	13.9	26.9	8.1	27.7	

Table 1.2-- Diversity indices in 4 ecosystems calculated from proportions of each small mammal species per trap effort (trapnights) in each ecosystem. 2006 data are in blue.

Ecosystem (ES) No.	1				6				14				20				ALL 2001		
	Year: 2001	2002	2005	2006	2000	2002	2005	2006	2000	2001	2002	2005	2006	2000	2001	2002		2005	2006
Shrews																			
<i>Blarina brevicauda</i>	0.039	0.018	0.070	0.011	0.051	0.046	0.005	0.032	0.000	0.100	0.011	0.043	0.032	0.000	0.071	0.069	0.000	0.000	0.011
<i>Sorex fumeus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
<i>Sorex cinereus</i>	0.000	0.018	0.027	0.005	0.006	0.029	0.000	0.000	0.000	0.008	0.011	0.016	0.038	0.000	0.000	0.000	0.005	0.011	0.011
Rodents																			
<i>Peromyscus</i> sp.	0.344	0.113	0.156	0.134	0.199	0.144	0.113	0.161	0.077	0.158	0.107	0.097	0.134	0.033	0.155	0.000	0.011	0.022	0.11
<i>Napeozapus insignis</i>	0.000	0.000	0.016	0.000	0.000	0.011	0.000	0.000	0.000	0.025	0.006	0.011	0.011	0.017	0.000	0.014	0.075	0.005	0.00
<i>Zapus hudsonius</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.000	0.000	0.022	0.016	0.00
<i>Crotus pennsylvanicus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.050	0.036	0.042	0.124	0.005	0.00
<i>Microtus pinetorum</i>	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
<i>Myodes gapperi</i>	0.031	0.018	0.172	0.194	0.045	0.029	0.108	0.097	0.064	0.108	0.056	0.204	0.145	0.000	0.036	0.000	0.027	0.000	0.10
<i>Synaptomys cooperi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.00
<i>Tamias striatus</i>	0.008	0.006	0.005	0.005	0.000	0.000	0.000	0.005	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.00
<i>Thomomys hudsonicus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.00
<i>Glaucomys volans</i>	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Carnivores																			
<i>Mustela</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.014	0.005	0.011	0.00
Number of Species	4	5	6	6	4	6	3	5	3	6	6	7	7	4	5	4	7	7	11
Simpson's Index D *	0.121	0.014	0.060	0.056	0.044	0.025	0.024	0.036	0.010	0.048	0.015	0.053	0.042	0.006	0.032	0.007	0.022	0.001	0.02
1-D **	0.879	0.986	0.940	0.944	0.956	0.975	0.976	0.964	0.990	0.952	0.985	0.947	0.958	0.994	0.968	0.993	0.978	0.999	0.97
Shannon-Wiener H' ***	0.92	0.71	1.40	1.04	0.93	1.02	0.74	0.99	0.62	1.35	0.81	1.24	1.28	0.69	1.11	0.63	1.35	0.55	1.01

* = Probability of picking two organisms that are the same species.

** = Probability of picking two organisms that are different species.

*** = Average degree of uncertainty in predicting to what species an individual chosen at random from a sample will belong.

Table 1.3-- Estimated small mammal biomass (in grams) obtained per 100 trapnights in 4 ecosystem, based on average 2006 weights* of species. 2006 data are in blue.

Ecosystem (ES) No.	1				6				14				20				Indiv Weig (g)*				
	Year:	2001	2002	2005	2006	2000	2002	2005	2006	2000	2001	2002	2005	2006	2000	2001		2002	2005	2006	
Shrews																					
<i>Blarina brevicauda</i>	69.3	31.7	124.1	19.1	91.0	81.6	9.5	57.3		177.5	20.1	76.3	57.3		126.8	123.3				1	
<i>Sorex fumeus</i>									8.3			3.5	3.5							1	
<i>Sorex cinereus</i>		7.2	10.9	2.2	2.6	11.6				3.4	4.6	6.5	15.2					2.2	4.3	.	
Rodents																					
<i>Peromyscus</i> sp.	666.7	219.3	302.4	260.7	385.4	278.6	219.0	312.8	149.2	307.1	208.2	187.7	260.7	64.6	300.1	0.0	20.9	41.7		1:	
<i>Napeozapus insignis</i>			29.8			21.3				46.3	10.5	19.9	19.9	30.8		25.7	139.2	9.9		1:	
<i>Zapus hudsonius</i>														111.7			48.0	36.0		2:	
<i>Crotus pennsylvanicus</i>										21.3				128.0	91.4	106.7	316.6	13.8		2:	
<i>Microtus pinetorum</i>				11.3																2	
<i>Myodes gapperi</i>	53.9	30.8	296.6	333.7	77.4	49.5	185.4	166.8	110.5	186.8	97.4	352.2	250.3		61.6		46.3			1:	
<i>Synaptomys cooperi</i>												12.9								2:	
<i>Tamias striatus</i>	62.3	47.5	42.9	69.9				42.9			45.1								85.8	7:	
<i>Thomomys hudsonicus</i>															154.8					13:	
<i>Glaucomys volans</i>						23.6														4	
Carnivores																					
<i>Mustela</i> sp.								50.3					50.3			129.9	50.3	100.5		9:	
TOTAL Biomass/ES																					
(in grams):	852.2	336.5	806.6	696.8	556.4	466.2	413.9	630.1	268.0	742.3	385.7	659.1	657.1	335.1	734.7	385.5	623.5	292.1			
Multi-Year Average:		673.0				674.2				542.4				474.2							

*= Actual weight of single individuals captured used for *T. hudsonicus*, *G. volans*, *S. cooperi*, and *M. pinetorum*