







Summer Survey for New Hampshire Woodland Bats

Bat Conservation and Management
Carlisle, Pennsylvania

Summer Survey for New Hampshire Woodland Bats

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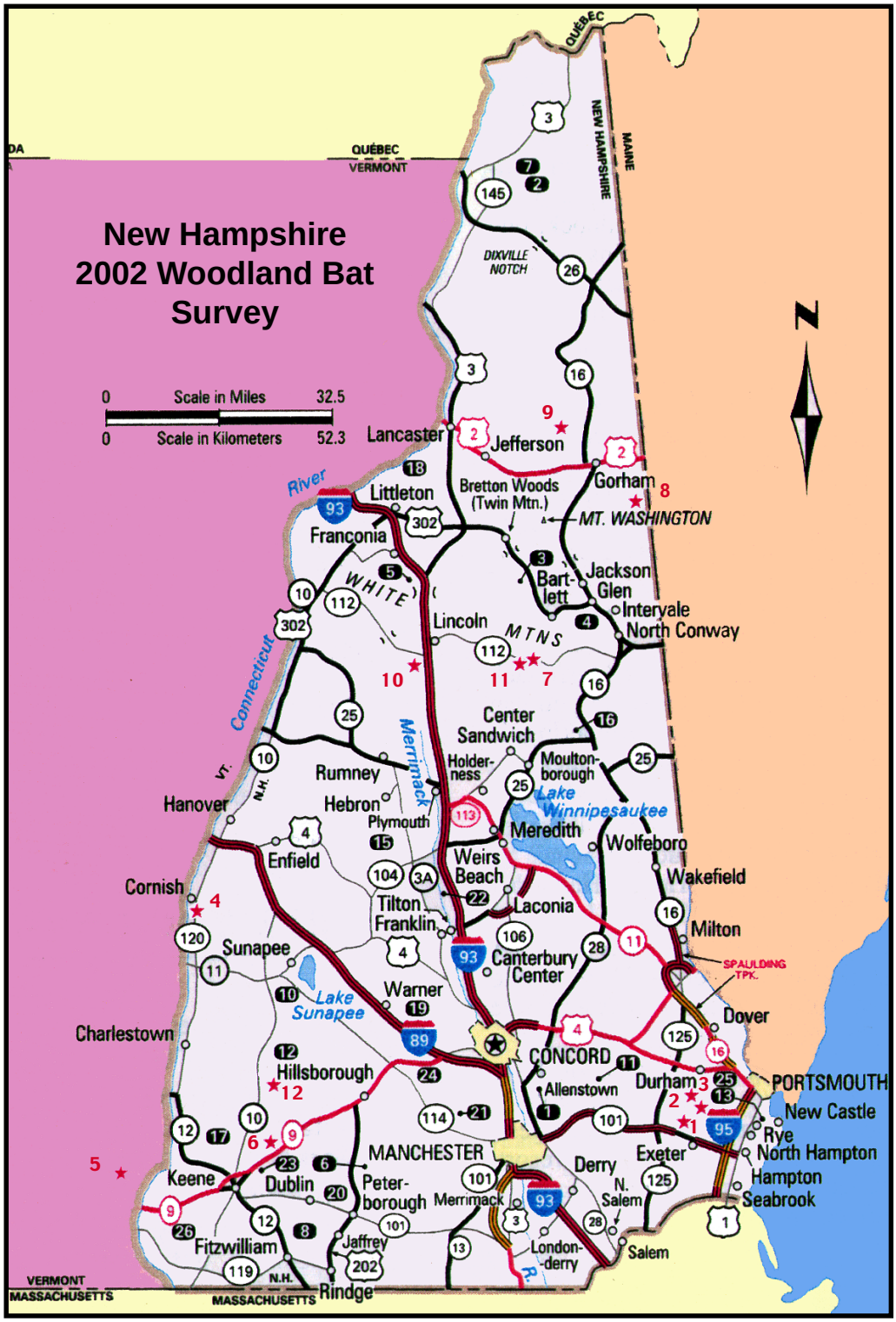
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General Sampling Locations



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Compact Disk

Digital Report	Adobe Acrobat format
Coordinate file	Windows Terrain Navigator format
Bat capture data sheets	Graphics format: TIFF (compressed)
Additional raw photography	Graphics format: JPEG

Sony digtal voice editor software (Windows or Macintosh w/Virtual PC)
Raw bat calls as recorded using Anabat II detector coupled with Sony ICD-MS515 (recorded on SP quality)

Cover:
Site #7 Passaconoway little brown, Site #9 Godfrey Dam Northern long ear,
Site #4 St. Gaudens big brown, Site #3 Durham red bat

Overview

This project's objective was to trap ten sites for two nights each for a total of twenty nights of sampling. These sites were to be located in three geographic regions of New Hampshire. The goal was exceeded with twenty-two suitable nights being sampled at twelve individual site locations, including one in Vermont.

Approximate site locations were provided by the Fish and Wildlife Service and the White Mountain National Forest. With the exception of Site #12, all trap locations were located on federal, state, or municipal owned land. Final site selection and net locations were determined in the field by Bat Conservation and Management (BCM).

This survey was conducted at or above levels called for by the USFWS Indiana Bat Survey Protocol. These guidelines call for summer mist net surveys to be conducted between May 15 and August 15. Outside of this narrow window it may become difficult to determine whether captured bats are summer residents or migrating individuals. Sampling took place between June 27 and July 18, 2002. These survey dates were chosen because the young of the year would be flying by these dates, thereby increasing the chance of capturing target bat species. Each site was surveyed for two consecutive nights with the exception of site #1, #5 and #12. Site #1 was surveyed three nights due to a significant rain event on the first night. Site #5 is remote and not netted a second night as the habitat could not be adequately sampled using traditional live trap methods. Site #12 was sampled one night in place of a second night at Site #5. Each net set was open for approximately five hours and night time temperatures ranged between 75°F (Site #3) and 45°F (Site 10). Minor rain showers occurred at Site #8 and #9 but was not significant enough to prohibit bat activity. The moon was obscured, rose late, or did not rise at all during the sampling.



Basin Brook (Site 8), net set D, 3Hx12m



Godfrey Dam (Site 9), net set A, 3Hx9m

Total Net Night* Level of Effort

Trap Type:	Site 1**	Site 2	Site 3	Site 4	Site 5***	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12***	Total:
Triple High Net	5	4	4	4	2	4	4	2	4	4	0	1	38
Double High Net	0	1	1	2	0	2	0	2	2	0	2	0	12
Single High Net	4	1	2	2	2	2	0	6	6	4	3	3	35
6' Harp Trap	3	2	2	1	0	2	0	2	2	1	1	1	17
Subtotals:	12	8	9	9	4	10	4	12	14	9	6	5	102
Grand total:	102****												

* Any net configuration between two poles, regardless of length or stacked height, deployed for one night = 1 net night.
** Surveyed for three nights due to a rainout of one session. One bat was captured during a break in the rain.
*** Surveyed for one night only.
**** Minimum contracted protocol was 4 net nights per site. Total minimum level of effort for this project was 10 sites X 2 net nights each site X 2 sample nights each site (40 net nights).

Table 1



Passaconoway (Site 7), net set A, 3Hx9m



Stoddard (Site 6), net set D, 1Hx9m

Various mist net heights and lengths were used as dictated by the physical characteristics at each site. Configurations included single high (2.6m), double high (5.2m), and triple high (7.8m) nets 4, 6, 9, or 12 meters long. Nets were generally placed over calm pools of water and jeep trails and extended into the canopy where possible. At three sites (#2, #3, #4) large triple high nets were placed through an open wetland or forest. A 6'x7' harp trap was also used in addition to traditional mist nets. The harp trap was always placed at constructions or bends in forest trails. The minimum level of effort for the entire project was 4 net nights per site (40 net nights total). A net night is defined as any configuration of net length or height between two poles set up for one night. The level of effort averaged 8.5 net nights per site for a total of 102 net nights for the entire project (see Table 1).

Summary of All Captured Bats

Species	Male	Female	Unknown	Total
Myotis lucifugus	63	40	0	103
Eptesicus fuscus	23	15	1	39
Myotis septentrionalis	15	31	0	46
Lasiurus borealis	1	0	0	1
Unknown	0	0	13	13
Subtotals:	102	86	14	202
Grand total:	202			

Table 2

Data collected at each site included site setup, weather, and general habitat information. Data collected on bats included species, sex, weight, forearm length, and trap capture information. Age classification was determined by the degree of ossification of the epiphyseal plates in the finger bones. The reproductive condition of females was noted by abdominal palpation and inspection of the mammary glands. Most bats were banded with metal split

Summary of Individual Trap Sites

Species	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12
Myotis lucifugus	2	5	0	28	0	16	4	2	12	21	4	9
Eptesicus fuscus	15	3	3	7	0	0	8	0	0	0	0	3
Myotis septentrionalis	5	2	0	3	0	4	4	4	4	6	1	13
Lasiurus borealis	0	0	1	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	3	0	3	0	2	3	1	1	0
Subtotals:	22	10	4	41	0	23	16	8	19	28	6	25
Grand total:	202											

Table 3

ring bands provided by the USFWS. Bands were carefully placed on a male bat's right forearm or female's left forearm. Photographs of each site and representatives of each species captured were archived.

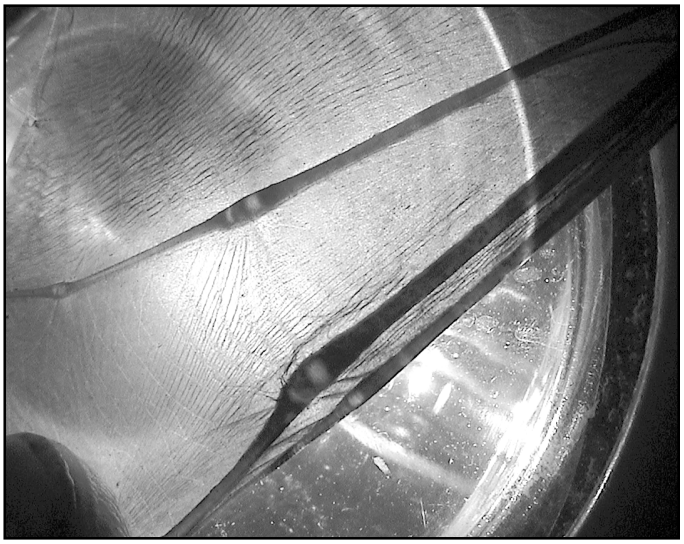
Almost every site was ultrasonically monitored using an Anabat II bat detector coupled with a Sony ICD-MS515 voice recorder. Generally the device was given it's own location away from other traps and disturbance and raised approximately 12' above the ground. The device sampled the area and digitally recorded bat passes for the first few hours of the evening. Later in the evening the same equipment was used to record calls of known captured bats. Bats captured in other nearby trap systems were individually released and watched using night vision equipment while simultaneously recorded ultrasonically. A number of ultrasonic calls were recorded using this technique and all calls are available for future analysis.

Sample Summary

Two hundred two bats of four species were captured during this project (Table 2 and 3), none of which are state or federally endangered, threatened, or candidate species. Captures included 103 (63 M, 30 RF, 25 NRF, 2 J) little browns *(Myotis lucifugus)*, 39 (23 M, 16 RF, 2 NRF, 1 J) big browns *(Eptesicus fuscus)*, 46 (15 M, 32 RF, 15 NRF, 1 J) Northern long-eared bats *(Myotis septentrionalis)*, and 1 male red bat *(Lasiurus borealis).*

The sample sites can be divided into three distinct geographic areas in New Hampshire; the Coastal, Connecticut River Valley, and White Mountains. Striking gender ratios become apparent when comparing capture totals among the three sample areas. Captures in the Coastal area (36) were evenly divided between sexes (18 each). Approximately the same number of bats were captured in the Connecticut River Valley (89) and in the White Mountains (77). The gender division is drastically different between these two areas though, with 241% more females than males captured in the Connecticut River Valley. In contrast, 400% more males than females were captured in the White Mountains (Tables 4 and 5).

Pregnant and/or lactating females of little brown, Northern long ear, and big brown bats were netted, indicating that those species may have maternity roosts relatively near the capture site (Table 6). The Coastal area sampled well with 72% of 18 females showing reproductive signs. The



Juvenile big brown bat at St. Gaudens (Site 4)

Gender Summary of Bats at Individual Trap Sites

Species		Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12	
Myotis lucifugus	*Female*	0	4	0	18	0	13	0	0	0	0	0	5	40
	Male	2	1	0	10	0	3	4	2	12	21	4	4	63
Eptesicus fuscus	*Female*	5	2	3	4	0	0	0	0	0	0	0	1	15
	Male	10	1	0	2	0	0	8	0	0	0	0	2	23
Myotis septentrionalis	*Female*	2	2	0	1	0	4	1	2	2	5	0	12	31
	Male	3	0	0	2	0	0	3	2	2	1	1	1	15
Lasiurus borealis	*Female*	0	0	0	0	0	0	0	0	0	0	0	0	0
	Male	0	0	1	0	0	0	0	0	0	0	0	0	1
Unknown		0	0	0	4	0	3	0	2	3	1	1	0	14
Subtotals:		22	10	4	41	0	23	16	8	19	28	6	25	202

Table 4

Connecticut River Valley sample size was larger and 52% of 58 females had reproductive signs. Only 10% of 10 females sampled in the White Mountains area showed reproductive sign.

Age was determined for 188 of the 202 bats captured, and of those only four were found to be young of the year. A single juvenile Northern long ear was found at Site 9 on July 9. One juvenile big brown was captured at Site 4 on July 13, followed by two little browns recorded at Site 6 on July 17. The appearance of juveniles towards the end of the project suggests a starting point for similar futire work.



Little brown bat at Passaconoway (Site 7). Ear deformaty may be caused by frostbite.

Bats were captured at all sites except Site #5. Site #3 was otherwise the slowest site with only three captures. Site #4 was the busiest site with a total of forty-one captures. The busiest single night of sampling was tied between Site #4 and #12 each having 25 captures, Site 12 was only sampled for that one night.

Additional detail of individual bat captures is included in Appendix A. Detailed site maps are located in Appendix B. Other animals captured in mist nets were flying squirrels.

Discussion

This section will make general observations and suggestions for future work based on the comparatively little data gathered. A few sample sites in any large geographic area (e.g. “Coastal area”) will not be a true profile of the species actually present. The absence of any species cannot be determined by a such a low sample size as presented in this report. The purpose of the project was to survey a few sites over a large area of New Hampshire rather than intensely study a particular local area. The following observations therefore are general and encompass the large geographic areas.

Summary of Captured Bats Grouped by Geographic Area

Species		Coastal Vicinity Sites 1, 2, and 3 Female	Coastal Vicinity Sites 1, 2, and 3 Male	Connecticut River Valley Sites 4, 5, 6, and 12 Female	Connecticut River Valley Sites 4, 5, 6, and 12 Male	Connecticut River Valley Sites 4, 5, 6, and 12 Unknown	White Mountains Sites 7, 8, 9, 10, and 11 Female	White Mountains Sites 7, 8, 9, 10, and 11 Male	White Mountains Sites 7, 8, 9, 10, and 11 Unknown	Totals:	
Myotis lucifugus	Female	4		36		-	0		-	40	103
	Male		3		17			43		63	
Eptesicus fuscus	Female	10		5			0			15	39
	Male		11		4			8	-	23	
	Unknown					1				1	
Myotis septentrionalis	Female	4		17		-	10		-	31	46
	Male		3		3			9		15	
Lasiurus borealis	Female	0		0		-	0		-	0	1
	Male		1		0			0		1	
Unknown		-				6			7	13	
Subtotals:		18	18	58	24	7	10	60	7	202	
Totals:		36		89			77				

Table 5

Costal Vicinity

These sites were dominated by deciduous forest and situated on very low slope lands generally surrounded by rural residential areas. This area had the fewest number of trap sites and averaged 6 captures per site night. The costal area also appears to be dominated by vast wetlands and large, deep rivers neither of which are favorable for traditional mist net sampling. The female-male ratio was even and reproductive ratio was high as previously mentioned in the capture summary. Big browns appear to do well in this habitat and it should be mentioned that the only red bat captured during the project was in this area.

With four species present despite the fewest trap sites, this area was the most diversified. Future surveys should target streams, smaller rivers, or shallow areas of large rivers higher in the watershed in order to find more favorable trap locations. The most favorable trap locations will likely be found on privately owned land.

Connecticut River Valley

This area is again dominated by a diverse deciduous forest on low to medium slopes. Unlike the Costal area, these forests are fragmented much more from agricultural use than residential. The area was by far the busiest with nearly 15 captures per site night, and more than twice as many females as males were captured. Half of the females exhibited current reproductive activity.

White Mountains

Significant habitat, topography, and climate separate the White Mountains from the other areas sampled in this project. The differences are reflected in the capture data. First of all, there are bats in the White Mountains as almost 8 bats were captured per net night. However, only 1 bat in 4 was female in this area, and only 1 out of 10 females showed a positive reproductive status.

The average July temperature in the low elevations of the White Mountains sample area (Gorham, NH) is 66°F. In contrast, the average July temperatures in the other study areas (Newmarket, NH and Brattleboro, VT) are both 71°F. The White Mountains are dominated by mature evergreen forests of the same general age, offering very poor direct solar heating on the vast majority of available natural roosts. In addition, the high slope (and thus higher travel/foraging energy costs) of much of the topography is likely to be unattractive to reproductive female bats.

Our sample sites tended to focus on the lowest elevation possible in the region where mixed or deciduous stands of forest could be found. Future studies targeted for female bats might continue working lower elevation areas where more hardwoods are present. Bat activity will be concentrated in corridors such as jeep trails and streams or near clearings in the forest where roosts are more likely to be available. Narrow pipeline, railroad, and unimproved road corridors should also be fruitful.

Based on previous summer and winter work in Pennsylvania, small footed bats (Myotis leibii) are often caught relatively near known small footed hibernaculms at low slope, low elevations. Future summer studies for this particular species should focus on similar habitat in the vicinity of the known hibernacula at Gorham, NH, and at the hibernacula itself.

Reproductive Condition Summary of Female Bats at Individual Trap Sites

Species		Site 1	Site 2	Site 3	Site 4	Site 5*	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11**	Site 12		
Myotis lucifugus	*Non-reproductive*	0	3	0	15	0	6	0	0	0	0	0	1	25	
	Pregnant	0	0	0	0	0	0	0	0	0	0	0	0	0	15
	Lactating	0	1	0	3	0	7	0	0	0	0	0	4	15	
Eptesicus fuscus	*Non-reproductive*	1	0	0	1	0	0	0	0	0	0	0	0	2	
	Pregnant	2	0	0	0	0	0	0	0	0	0	0	0	2	13
	Lactating	2	2	3	3	0	0	0	0	0	0	0	1	11	
Myotis septentrionalis	*Non-reproductive*	0	1	0	1	0	0	1	1	2	5	0	4	15	
	Pregnant	2	0	0	0	0	0	0	1	0	0	0	0	3	16
	Lactating	0	1	0	0	0	4	0	0	0	0	0	8	13	
Reproductive Females/ Total Females		6/7	4/8	3/3	6/23	0/0	11/17	0/1	1/2	0/2	0/5	0/0	13/18		

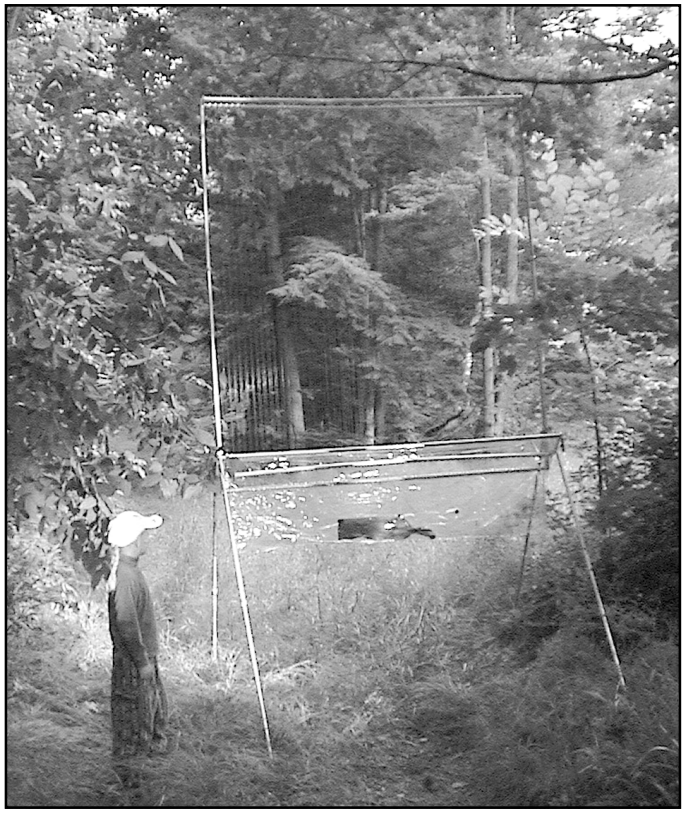
* No bats captured. ** 6 bats were captured, but no females.

Table 6

Echolocation Archive

Almost every site was ultrasonically monitored using an Anabat II bat detector coupled with a Sony ICD-MS515 digital sound recorder. This recording system was chosen over direct connecting to analyzing software and hardware in order to permanently preserve the original raw calls for when alternate analysis software and hardware becomes available. The raw calls, untainted by processing methods or magnetic tape issues, are archived on compact disks and can be readily processed today using an Anabat Zero Crossing Interface Module (ZCAIM) properly connected to a computer using the appropriate Anabat system software. In addition, the calls can be played back and processed using future generations of this system or alternate systems when they become available.

All calls were recorded using an Anabat II detector (division ratio 16, sensitivity 7). The Sony recorder was directly connected to the bat detector output. It was sound activated and automatically began recording when the detector sensed ultrasonic noise. The device sampled an area from approximately 12' above the ground and digitally recorded bat passes for the first few hours of the evening. The recorder paused after approximately three seconds of silence, but continued writing to the same file when sound was detected again. As a result a number of bat calls may be in a single file, but each "pass" will always be separated by a few seconds of silence.



Typical harp trap setup (Site 6, Stoddard)

The Sony recorder was set to record on the highest resolution possible (SP mode). The recorder saves each file in a Sony-specific file format which must be read using the Sony Voice Recorder software, which is included on the disk with the raw files. Using the Sony software, the files can be played back, reloaded onto a Sony recorder for playback into a present-day or next generation ZCAIM, or possibly played thru a computer directly into a ZCAIM. In addition, the Sony software will convert the raw sound files into other more common file formats, although it is not known if any data is compromised during conversions.

Later in the evening during the sampling, the same equipment was used to record calls of known captured bats. Bats captured in other nearby trap systems were individually released and tracked using night vision equipment while simultaneously recorded ultrasonically. Voice notes at the beginning of each file detail the species, location, type of surroundings, and Anabat detector settings. The protocol for all recordings was:

- Bat type, location, and Anabat settings were recorded at the beginning of the file.
- Lights were extinguished except for the person releasing the bat, or the bat was taken several hundred feet from trap activity and disturbance.
- The bat was hand released approximately 40' from the recorder. It was then monitored and tracked with the Anabat recorder and night vision equipment for as long as possible in the same location.
- Any additional notes were recorded, espicially if the recording was immediately deemed unusable for some reason.

A number of solid ultrasonic calls were recorded using this technique and could be used to compare to unknown calls processed the same way or saved for future analysis.

Brief Natural History of Captured Species

Big Brown Bat

Eptesicus fuscus

No federal listing
Weight: 14 - 21 grams (0.5 - 0.7 ounce)
Wingspan: 32 - 40 centimeters (13 - 16 inches)
Distribution: From southern Canada through southern North America into South America, including many islands in the Caribbean.



Site 4, Big Brown Bat (BCM stock photo)

These bats are closely associated with humans are familiar to more people in the United States than any other species of bat. Most summer roosts are in attics, barns, bridges, or other man-made structures, where colonies of a few to several hundred individuals gather to form maternity colonies. They move into caves, mines, and other underground structures to hibernate only during the coldest weather. Where most of these bats winter remains unknown. It emerges at dusk and flies a steady, nearly straight course at a height of 6 - 10 meters (20 - 33 feet) in route to foraging areas. Its large size and steady flight make it readily recognizable. Apparently, some individuals use the same feeding ground each night, for a bat can sometimes be seen following an identical feeding pattern on different nights. After feeding, the bat flies to a night roost to rest; favored night roosts include garages, breezeways, and porches of houses. These bats consume beetles, ants, flies, mosquitos, mayflies, stoneflies, and other insects. Mating occurs in autumn and winter, females store sperm, and fertilization takes place in spring. In the eastern United States, big brown bats usually bear twins in early June. In the western United States, usually only one baby is born each year. It is common throughout most of its range.

Little Brown Bat

Myotis lucifugus

No federal listing
Weight: 7 - 14 grams (0.3 - 0.5 ounce)
Wingspan: 22 - 27 centimeters (9 – 11 inches)
Distribution: Widely from central Alaska to central Mexico.



Little Brown Bat (BCM stock photo)

The little brown bat usually hibernates in caves and mines. During summer, it often inhabits buildings, usually rather hot attics, where females form nursery colonies of hundreds or even thousands of individuals. Where most males spend the summer is unknown, but they likely are solitary and scattered in a variety of roost types. Colonies usually are close to a lake or stream. This species seems to prefer to forage over water but also forages among trees in rather open areas. When foraging, it may repeat a set hunting pattern around houses or trees. It eats insects, including gnats, crane flies, beetles, wasps, and moths. Insects usually are captured with a wing tip, immediately transferred into a scoop formed by the forwardly curled tail and interfemoral membrane, and then grasped with the teeth. Mating occurs in autumn but also may occur during the hibernation period. One baby is born in May, June, or early July. When the mother is at rest during the day, she keeps the baby beneath a wing. Lifespan may be more than 20 years. This species is one of the most common bats throughout much of the northern United States and Canada but is scarce or only locally common in the southern part of its range. A subspecies found in the southwestern United States, *M. l. occultus* (Arizona bat), is considered to be of special concern.

Northern Long-eared Bat

Myotis septentrionalis

Federal listing: none
Weight: 6 - 9 grams (0.2 - 0.3 ounce)
Wingspan: 23 - 27 centimeters (9 - 11 inches)
Distribution: includes southern Canada and the central and eastern Untied States southward to northern Florida.



Northern Long-eared Bat (BCM stock photo)

Northern long-eared bats hibernate in parts of caves and mines that are relatively cool and moist, where the air is still. Hibernation may begin as early as August and may last for 8 - 9 months in northern latitudes. In summer, they roost by day in a variety of shelters, including buildings and under tree bark, shutters, bat houses, and bridges. At night they commonly use caves as night roosts. Recent trapping and internal surveys suggest they may use caves as stopover points during migration more so than actual hibernation. Northern long-eared bats seem much more solitary in their habits than other members of genus *Myotis*, and they generally are found singly or in small groups containing up to 100 individuals. Although they frequently hang in the open, they seem to prefer tight crevices and holes. Sometimes only the nose and ears are visible, but they can be distinguished from most other species of *Myotis* by their long ears. These bats forage mainly on forested hillsides and ridges rather than in streamside and floodplain forests. They consume a variety of small night-flying insects. Presumably most mating occurs in autumn prior to hibernation. Apparently small nursery colonies are formed in June and July where pregnant females give birth to one baby. Mothers may be able to retrieve their young that fall from most roost sites. Lifespan may be more than 18 years. This species is common over much of its range, but does not occur in large concentrations.

Eastern Red Bat

Lasiurus borealis

No federal listing
Weight: 9 - 15 grams (0.3 - 0.5 ounce)
Wingspan: 28 - 33 centimeters (11 - 13 inches),
Distribution: Southern Canada, the eastern United States (except the Florida Peninsula), and northeastern Mexico.



Site 3, Eastern Red Bat

Eastern red bats spend daylight hours hanging in foliage of trees. They usually hang by one foot, giving them the appearance of dead leaves. Although these bats seldom enter caves for any distance, they often swarm about cave entrances in autumn. In colder parts of their range, they may migrate south in winter or hibernate in hollow trees or leaf litter. These bats are almost completely furred, except for the ears and parts of the wings, and they can respond to subfreezing temperatures by increasing their metabolism. Predators include several kinds of birds, especially blue jays. Eastern red bats emerge early in the evening and often fly on warm winter afternoons. They forage regularly over the same territory on successive nights. They commonly feed beneath street lights. Eastern red bats consume moths, crickets, flies, mosquitos, true bugs, beetles, cicadas, and other insects. Eastern red bats mate in flight during August and September, sperm is stored over winter, and females give birth to one to four babies (average is 3.2) during late spring or early summer. Pups are born hairless, with the eyes closed, and they cling to the fur of their mother with their teeth, thumbs, and feet. It is common throughout most of its range, except for the New England states where it seems to be more infrequent.

Appendix A

Summer Mist Net Data Sheets

Notes and key to abbrevations used on data sheets

Explanation of certain data sheet fields:
SITE#: The number given to every trap site in a separate geographic location. Site # remains the same regardless of how many nights are spent at the same location.
DATE: Pre-midnight date which trapping began.
LONGITUDE/LATITUDE: Coordinates from a GPS receiver. This information is in datum WSG 84 in the format of degrees/minutes/seconds.
NUMBER OF NETS/TRAPS: Description of nets, e.g. 3Hx9m= a triple high, 9 meter wide net.
NET SET: Refers to trap location on sketch and description in "NUMBER OF NETS/TRAPS" field
TIME: 12 hour civilian time
FOREARM LENGTH: In millimeters

Reproductive condition:
NR= Non Reproductive
PG= Pregnant
L= Lactating
PL= Post Lactating
SCR= Scrotal

Age:
A: Adult
J: Juvenile

Disturbance Codes and Key

PROXIMITY	TYPE	
1 Disturbance on site	**A** Dumping	**H** Unimproved roads
	B Party spot	**I** Recreation area
2 Disturbance within 100 meters of site	**C** Buildings	**J** Mining
	D Agriculture	**K** Fire
	E Utility rights-of-way	**L** Clearcut
3 Disturbance 100-500 meters of site	**F** Railroad rights-of-way	**M** Insect defoliation
	G Improved roads	**N** No disturbance

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: Rockingham	Site #: 1	Night #: 1	Site Name: Tucker		Date: 6-27-02
Latitude: 43 03 9.27	Longitude: 70 58 27.39			ID By: J. Chenger		Kit ID:
Observers: J. Chenger E. Russell Jill Kelly M. Clark S. Von				Actual net open time: 8:30	Actual net close time: 11:30	
Sky Conditions:	dusk, note time+temp+description: 70F Light Rain	mid-sample, note time+temp+description: —	end, note time+temp+description: 11:00 Light Rain 68°F			
Wind Description:	1		1			

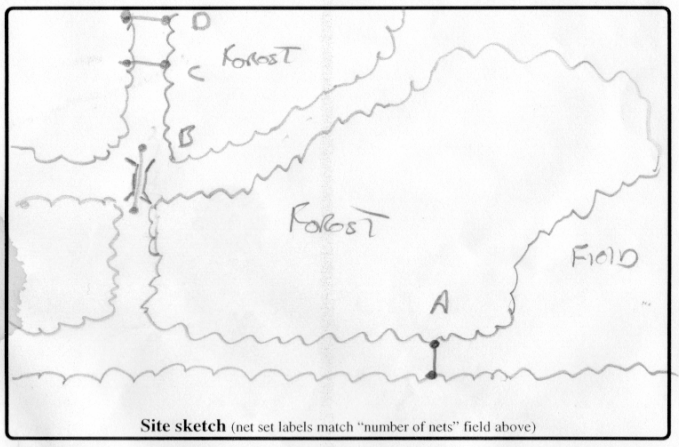
Moon affect: N/A — Start: — Stop: —

Number of nets/traps: (label and include size and configuration) A: 3Hx9m B: 1Hx9m C: 1Hx9m D: 1Hx6m

Site Description: (include dominant species and stream data) See Visit #2

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	51	0	21	500m
Disturbance codes:	F	H	2	N	3	D

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 — Page 1 of 1

Project: NH — County: Rockingham (Visit) — Site #: 1 — Site Name: Tucker — Date: 6-27-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
11:00	Big Brown	A	M	NR	16.9	45.0	8m	A	11061	1
										2
										3

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Rockingham	Site #: 1	Night #: 2	Site Name: Tucker-Angry Geezer	Date: 28 June '02	
Latitude: 43 3 9.27	Longitude: 70 58 27.39			ID By: J. Chenger	Kit ID:	
Observers: J. Chenger, M. Clark, E. Russell, K. Munney				Actual net open time: 9:00 p.m.	Actual net close time: 2100	

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	cloudy 65° 9:00	11:30; 63.1; clear	2:00 61.5F clear
Wind Description:	2	2	1

Moon affect: no affect overcast, not visible; half moon; moon rose above tree top after midnight

Start:

Stop:

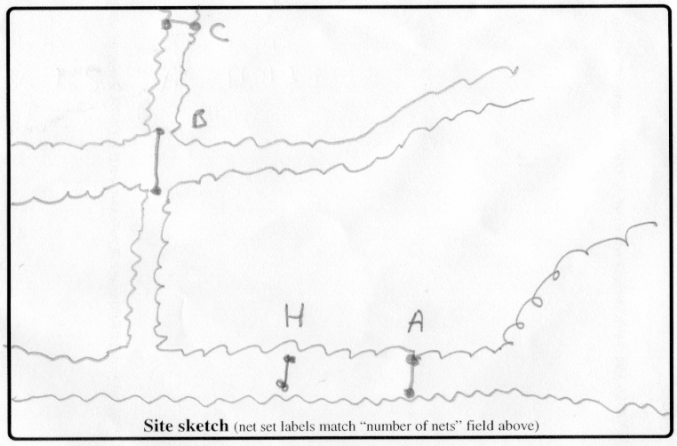
Number of nets/traps: (label and include size and configuration) A=3x9m B=3x9m C=1x6m H=Harp trap

Site Description: (include dominant species and stream data) LANDSCAPE: (north) mixed evergreen & hardwood w/fields interspersed & less than 2 residences around bldgs. Understory dense w/ US growth ave. ≈ 5ft high composed of ug. hardwoods primarily; scattering of mature shagbark; canopy cp. varies predominately pines and hickories; areas where there are yg trees mostly pines (esp @ site A) are dense & trees dbh are less.

STREAM: open canopy @ bridge; most of creek is canopied over; depth @ time of netting range from 2ft to 5ft (guessing) ≈ 15m wide, almost no debris in water channel; brown water; substrate = rock and muck; water = slow flow

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	51 | 0	21 | 500m
Disturbance codes:	1 | H	2 | N	3 | D

Remarks: (observations, other wildlife, etc.) Potential bat roost structure - in places it's high = stumps w/ large dbh; snags; loose bark esp. on the hickories; a small # of lightning scars were noted, very few cavities noted of any size



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: New Hampshire Bats County: Rockingham Co. NH Site #: 1 Site Name: Tucker-Angry Geezer Date: 28 June '02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments	
9:20	Big Brown	A	F	~~NR~~ L	21.5	47.2	8m	B	11002	banded left FA	1
10:15	Big Brown	A	M	NR	17.9	46.4	5m	B	11003	banded R FA	2
10:15	Big Brown	A	M	NR	16.8	44.1	5m	B	11004		3
10:15	Big Brown	A	F	NR	25.5	47.7	5m	B	11005		4
10:15	Big Brown	A	M	NR*	15.7	44.4	5m	B	11006	L=9x5.9 (LxW) * Testis descending	5
10:15	Big Brown	A	M	NR*	15.8	43.7	5m	B	11007	*L=11.2x4.5 R=7.8x4.1	6
10:45	N. long-eared	A	M	NR	6.6	35	3m	A	11008		7
10:50	N. long-eared	A	F	~~NR~~ L	8.9	33.5	—	H	11009		8
10:55	N. long-eared	A	M	NR	6.3	36.2	—	H	11010		9
11:15	N. long-eared	A	F	PG	9.3	36.0	5m	B	~~11011~~	not banded because it's pregnant	10
11:30	Big brown bat	A	M	NR	15.7	43.4	3m	A	11011		11
1:00	N. Long eAR	A	m	NR	6.8	36.7	5m	A	11012		12
2:00	Big brown	A	F	L	23.2	46.1	6m	B	11013		13
											14

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Rockingham	Site #: 1	Night #: 3	Site Name: Tucker		Date: 6/29/02
Latitude: 43 3 9.27	Longitude: 70 58 27.39			ID By: J. Cherger		Kit ID:
Observers: J. Cherger, E. Russell				Actual net open time: 9:00	Actual net close time: 2:00	

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	9:15 ; 63.5° , clear skies	12:00 ; 59.7° ; clear	2:00 57.5 Clear
Wind Description:	1	0	0

Moon affect: N/A

Start:

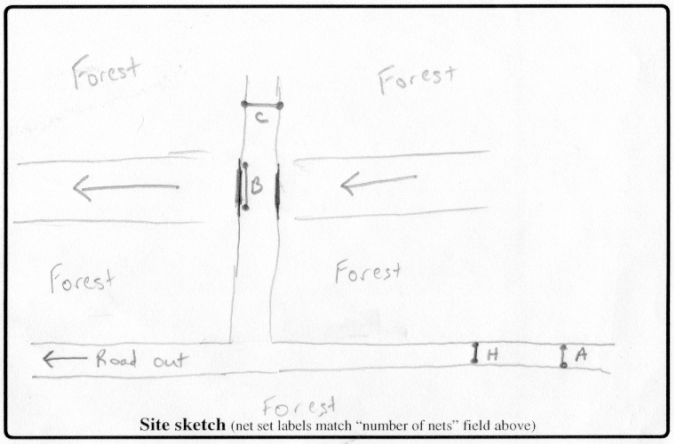
Stop:

Number of nets/traps: (label and include size and configuration) A = 3×9m B = 3×9m C = 1×9m H = Harp Trap

Site Description: (include dominant species and stream data)

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	51	G	21	0.5Km
Disturbance codes:	1	H	2	N	3	D

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: New Hampshire Bats County: Rockingham Site #: 1 Site Name: Tucker Night 3 Date: 6/29/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:30	B. Brown	A	M	NR	16.0	45.0	7m	B	11014	1
10:00	B. Brown	A	F	Lac	—	—	9m	B	11002	Recapture from previous night - Released 2
9:15	B. Brown	A	m	NR	16.1	43.8	6m	B	11015	3
9:20	L. Brown	A	m	NR	8.3	37.6	7m	B	11016	4
9:45	L Brown	A	m	NR	7.3	39.0	5m	B	11017	5
11:30	B Brown	A	m	NR	18.8	42.4	7m	B	11018	6
12:15	B. Brown	A	F	Lac	19.1	44.1	5m	A	11019	7
1:15	B. Brown	A	m	NR	16.7	45.7	—	H	11020	8
										9

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Rockingham	Site #: 2	Night #: 1	Site Name: Newmarket TNC		Date: 6/30/02
Latitude: 43 5 5.66	Longitude: 70 54 58.97			ID By: J. Cherger		Kit ID:
Observers: J. Cherger, M. , E. Russell J. Kelly				Actual net open time: 8:50	Actual net close time: 1:45	

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	9:15, 70.0, Clear	12:06 76.3 clear	1:45, 69.9, clear
Wind Description:	0 No wind felt	1	0.5

Moon affect: No moon effect - moon phase = half moon

Start:

Stop:

Number of nets/traps: (label and include size and configuration) A = 3H 9m B = 3H 9m C = 1H 9m It = Itarp Trap

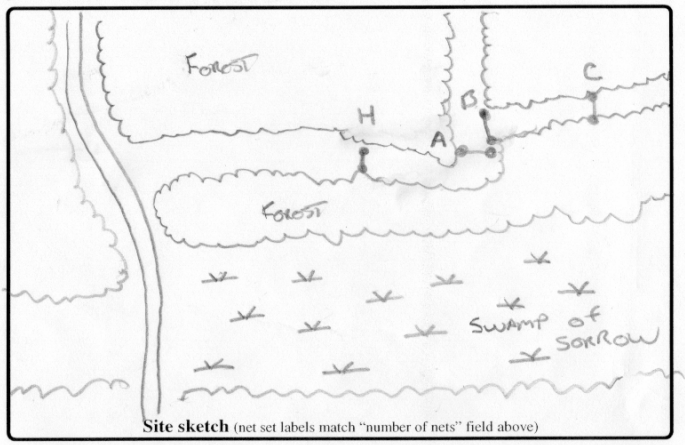
Site Description: (include dominant species and stream data) Forest Predominately hardwoods in canopy & subcanopy, highly disturbed area - transition forest, forest floor grassy where canopy is open, ferns abundant - some Pines in canopy

Subcanopy is composed of dense young hardwoods ≈ 15 feet high average

Freshwater Wetland: freshwater marsh - man-made (reservoir-impoundment) open water surface area ranges from broad & still water to narrow channel w/ slow flow

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	62	100m	61	150m
Disturbance codes:	1	N	2	N	3	G

Remarks: (observations, other wildlife, etc.) aquatic mammal in creek @ road crossing believe it was a beaver



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: NH County: Rockingham Site #: 2 Site Name: Newmarket NHTI Date: 6-30-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
10:45	L. Brown	A	F	NR	10.8	38.4	3m	B	11021	1
10:45	N. Longear	A	F	L	9.2	36.4	2m	C	11022	2
10:50	Big Brown	A	F	L	22.7	45.7	5m	B	11023	band #11024 lost 3
11:10	N. brown	A	M	NR	8.3	38.5	—	H	11025	1st harp trips check 4
11:10	N. brown	A	F	NR	8.7	38.1	—	H	11026	these 3 bats were 5
11:10	N. long-ear	A	F	NR	8.2	35.6	—	H	11027	in the trips 6
11:35	B. BROWN	A	M	NR	16.8	43.6	4m	A	11028	7
11:40	L BROWN	A	F	L	9.9	39.0	3m	A	11029	8
										9

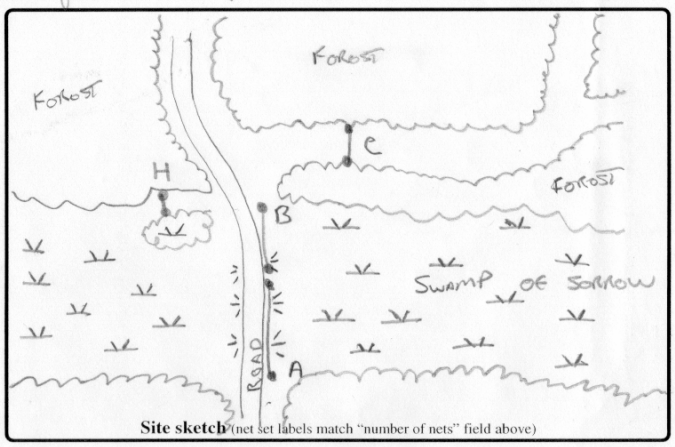
Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Rockingham	Site #: 2	Night #: 2	Site Name: Newmarket TNC		Date: 7/1/02
Latitude: 43 5 10.26	Longitude: 70 55 6.39			ID By: J. Cherger		Kit ID:
Observers: J. Cherger M. Clark, E. Russell				Actual net open time: 8:30	Actual net close time: 2:00 a.m.	
Sky Conditions:	dusk, note time+temp+description: 8:45, 74.9, clear		mid-sample, note time+temp+description: 11:30, 73.5, clear humid!		end, note time+temp+description: 2:00 cloudy 70.5	
Wind Description:	0 no wind noted		0		0	
Moon affect: no affect - moon rise over trees ≈ 2:15 a.m.					Start: Stop:	
Number of nets/traps: (label and include size and configuration)	A = 3x 12m B = 3x 9m C = 2x 6m H = Harp Trap					
Site Description: (include dominant species and stream data)	maples, oaks & hickories & elms					
WETLAND VEGETATION	freshwater grasses & most of the high/mid to high trees; most of these are 30-40 feet tall - completely bare of bark & leaves			almost all branches left on standing dead timber		

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	61	0	11	0.5 km
Disturbance codes:	T	G	2	N	3	C

Remarks: (observations, other wildlife, etc.) flying Squirrel Caught in net B ≈ 11:00 o'clock - in one of top tiers - richly colored & large escaped before we could closely examine probable N. flying Squirrel due to size & coloration



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: New Hampshire Bats County: Rockingham Site #: 2 Site Name: Newmarket NIGHT 2 TNC Date: 7/1

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
10:40	B. Brown	A	F	L	19.7	45.7	9m	A	11023	RECAPTURE BANDED PREVIOUS NIGHT 1
1:00	W. Brown bat	A	F	NR	8.5	38.4	5m	A	11030	2
										3

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: STRAFFORD	Site #: 3	Night #: 1	Site Name: Durham		Date: 7/2/02
Latitude: 43 6 11.13	Longitude: 70 56 16.16			ID By: J. Cheyer		Kit ID:
Observers: J. Cheyer, M. Clark, E. Russell				Actual net open time: 9:00	Actual net close time: 2:00	

Sky Conditions:	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
	9:00, 78.7 clear	11:45; 76.5°F; clear	75 2:00 clear
Wind Description:	0 no movement	0=no wind.	

Moon affect: none — moon ≈ 1/2 full — rising after 1 AM

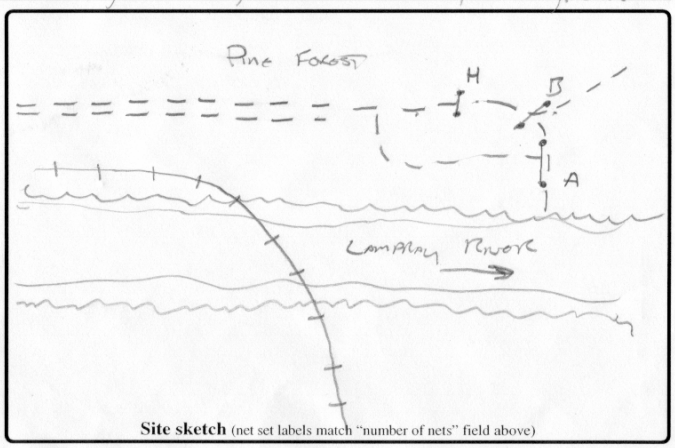
Start:
Stop:

Number of nets/traps: (label and include size and configuration) A = 3×12m B = 3×6m H = Harp Trap

Site Description: (include dominant species and stream data) Pine forest / mature pine forest with understory of hardwoods; in places nearby pine stands of mature pines with open understory - ground cover = ferns, Partridgeberry LAMPREY RIVER - tannic, blackwater system, with clean, tea-colored, substrate sand, muck, rotting leaves

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 0	51 .25km	14 .5km
Disturbance codes:	I 1	I 2m	F 3

Remarks: (observations, other wildlife, etc.) (Found no evidence of use at present) tent in pine woods near river; biker encountered on trail; area appears to be used regularly for hiking & biking. Boater on river; 2 groups were observed (different groups) driving from railroad bridge over the river (group 1 = 4 men ≈ 18-20 yo, group 2 = 5 [illegible])



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page 1 of 1

Project: New Hampshire Bats County: STRAFFORD Site #: 3 Site Name: Durham Night 1 Date: 7/2/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
12:00	Big Brown	A	F	L	24.8	47.0	8m	A	11031	1
12:00	Red Bat	A	M	NR	13.0	40.0	6m	A	11033	2
12:15	Big Brown	A	F	L	22.8	45.5	7m	A	11032	3
										4
										5
										6
										7

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: STRAFFORD	Site #: 3	Night #: 2	Site Name: DURHAM		Date: 7-3-02
Latitude: 43 6 11.13	Longitude: 70 56 16.16			ID By: J. Chengars		Kit ID:
Observers: J. Chengars, M. Clark, E. Russel				Actual net open time: 8:30	Actual net close time: 2:00	

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	Clear 9:00 79 F	12:00 74 F clear	2:00 clear
Wind Description:	1	0	0

Moon affect: None — Start: — Stop: —

Number of nets/traps: (label and include size and configuration) A: 3H×12m B: 2H×9m C: 3H×9m D: 1H×12m E: 1H×9m H: 6' Harp Trap BR: Bat Recorders

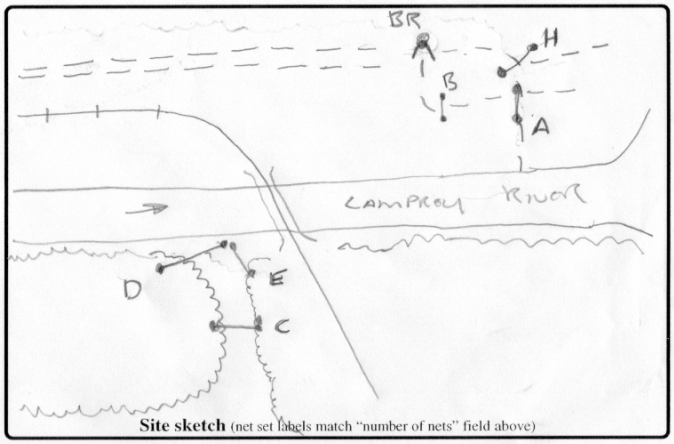
Site Description: (include dominant species and stream data) Two clusters of net sets dissected by Lamprey River, predominantly mature Hemlocks, Red Pine, Red oak, Silver maple,

Rivers is slow, wide, Deep

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	51 | 0.25km	14 | 0.5
Disturbance codes:	I | 1	2 | H	3 | F

Remarks: (observations, other wildlife, etc.) Flying Squirrel in Net D escaped before ID

Nets C-D-E: 43 6 1.81
70 56 28.8



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page 1 of 1

Project: NH County: STRAFFORD Site #: 3 Site Name: Nest 2 DURHAM Date: 7-3-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
12:20	Big Brown	A	F	L	23.0	48.1	4m	B	—	1
										2
										3

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire	County: Sullivan	Site #: 4	Night #: 1	Site Name: St Gaudens NHS	Date: 12 July '12
Latitude: 43 30 7.56	Longitude: 72 22 46.27			ID By: John Chenger	Kit ID:
Observers: J. Chenger, M. Clark, E. Russell				Actual net open time: 8130	Actual net close time: 1145

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	Clear 69°F 8130	12:00 65°F	2:00 60° clear
Wind Description:	0 clear	0 clear	0 clear

Moon affect: N/A

Start:

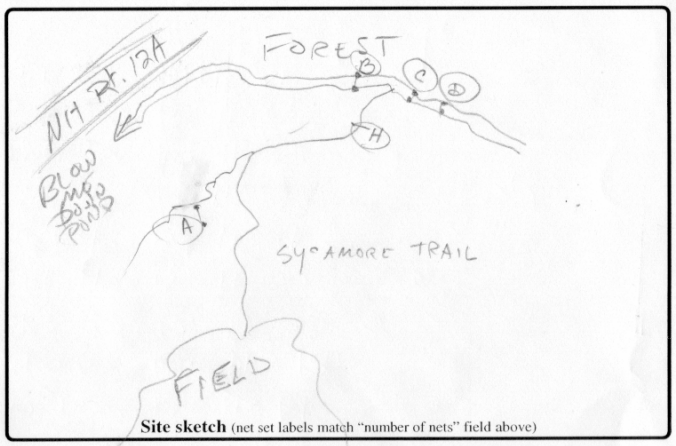
Stop:

Number of nets/traps: (label and include size and configuration) A: 3×12 H: hung B: 9m×3 C: 9m×1 D: 6m×2 H: hung

Site Description: (include dominant species and stream data)

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	41 | O	43 | 100m	52 | 200m
Disturbance codes:	1 | I	2 | N	3 | G

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 2

Project: New Hampshire bats County: SULLIVAN Site #: 4 Site Name: St. Gaudens NHS NIGHT 1 Date: 12 July 02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:00	B. Brown	A	F	NR	19.8	47.2	3m	A	11096	1
9:00	B. Brown	A	F	LAC	16.0	46.2	4m	A	11097	2
9:00	B. Brown	A	M	NR	15.6	45.4	6m	A	11098	3
9:10	B. Brown	—	—	—	—	—	2m	A	—	ESCAPED NET 4
9:55	B. Brown	A	F	LAC	21.3	46.1	3m	A	11099	5
10:00	L. Brown	A	F	NR	10.0	39.6	3m	A	11100	6
10:02	L. Brown	A	M	NR	6.0	36.9	2m	A	11101	7
10:26	L. Brown	A	F	NR	6.9	39.3	1.5m	A	11102	8
9:00	L. Brown	A	F	NR	7.5	38.9	3m	D	11085	9
9:05	B. Brown	A	F	L	20.1	44.8	3.5m	B	11086	10
11:00	L. Brown	A	F	NR	8.4	38.9	5m	A	11103	11
9:05	L. Brown	A	M	NR	7.5	37.9	3m	B	11087	12
9:10	L. Brown	A	M	NR	7.1	35.2	5m	B	11088	13
9:10	L. Brown	A	M	NR	8.2	37.6	3m	B	11089	14
9:20	L. Brown	A	F	NR	7.2	37.9	4m	B	11090	15
9:30	L. Brown	A	F	NR	7.2	39.9	4m	B	11091	16
9:40	L. Brown	A	M	NR	7.0	39.1	4m	B	11092	17
9:50	L. Brown	A	F	LAC	8.5	39.3	3m	B	11093	18
9:50	L. Brown	A	F	NR	7.6	39.0	6m	B	11095	19
10:15	L. Brown	A	F	NR	7.6	40.2	5m	B	11094	20

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 2 of 2

Project: NH County: SULLIVAN Site #: 4 Site Name: ST. GAUDENS NIGHT 1 Date: 7-12-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
11:20	L. Brown	A	F	NR	8.1	37.4		A	11104	1
11:20	L. Brown	A	M	NR	7.6	37.8		A	—	ESCAPED BANDING 2
1:45	L. Brown	A	F	NR	7.9	37.5		A	—	3
1:45	L. Brown	A	F	NR	8.0	37.7		A	—	4
1:50	L. Brown	A	M	NR	7.5	37.5		A	—	5
										6
										7

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: Sullivan	Site #: 4	Night #: 2	Site Name: St. Gaudens	Date: 7-13-02
Latitude: 43 30 7.56	Longitude: 72 22 46.27			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, E. Russel, M. Clark, D. Walasewicz				Actual net open time: 8:30	Actual net close time: 2:00

Sky Conditions:	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
	Clear 67°F 8:30	12:00 63.7 Clear	2:00 61.3 Clear
Wind Description:	0	0	0

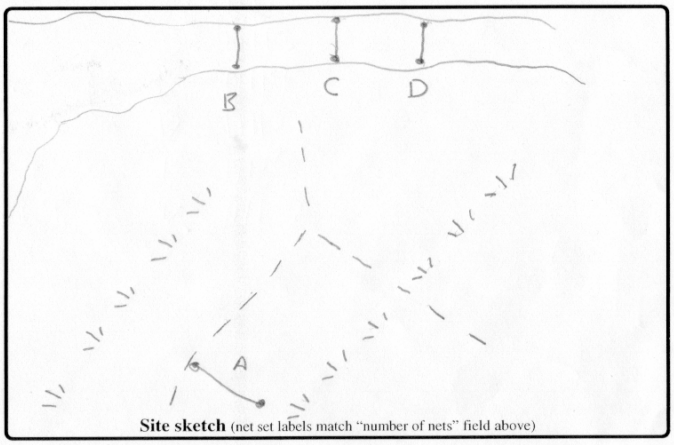
Moon affect: N/A — Start: — Stop:

Number of nets/traps: (label and include size and configuration) A: 3H×12m B: 3H×9m C: 1H×9m D: 2H×6m

Site Description: (include dominant species and stream data) Beech Sugar maple white ash Red maple, Hemlock, Red oak Sycamore. Net BCD located along 30'w×1' deep Boggy stream w/ gravel bottom, Net D located in open woods along hiking trail.

Anderson Level II:	most common+distance	2nd common+distance	3rd common+distance
	41 | 0	43 | 100m	52 | 200m
Disturbance codes:	1 | I	2 | N	3 | 6

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page 1 of 1

Project: NH County: Sullivan Site #: 4 Site Name: St. Gaudens Night 2 Date: 7-13-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:20	N. Longear	A	m	NR	6.3	36.2	3m	A	11105	1
9:00	L. Brown	A	m	NR	6.9	39.2	3.5m	D	11106	2
9:10	L Brown	A	F	NR	7.4	39.0	3m	D	11107	3
9:15	N. Longear	A	F	NR	7.2	37.7	3m	D	11108	4
9:15	unknown	—	—	—	—	—	5m	A	—	escaped net 5
9:30	L. Brown	A	m	NR	6.6	36.2	5m	B	11109	6
10:00	N. Longear	A	m	NR	7.0	37.4	7m	B	11110	7
10:15	B. Brown	J	m	NR	12.1	43.9	1m	B	11111	8
10:15	Myotis —	—	—	—	—	—	4m	D	—	escaped net 9
10:30	L. Brown	A	m	NR	6.8	38.3	2m	B	11112	10
10:40	L. Brown	A	F	Lac	10.1	38.6	5m	B	11113	11
11:30	L. Brown	A	F	NR	9.1	36.5	3m	B	11114	12
11:30	L. Brown	A	F	NR	7.5	38.3	2m	D	11115	13
11:45	L. Brown	A	F	NR	8.7	37.8	4m	B	11116	14
1:00	L. Brown	A	F	Lac	8.6	39.9	3m	D	11117	15
1:00	myotis	—	—	—	—	—	—	B	—	escaped net 16

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Windham	Site #: 5	Night #: 1	Site Name: Putney Mtn.	Date: 7/14/02
Latitude: 42 59 24.63	Longitude: 72 35 30.03			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, M. Clark, E. Russell				Actual net open time: 8:45	Actual net close time: 1:15

Sky Conditions:	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
	8:45, clear, 74.0°F	12:00, 66.6, clear	1:15, 64.9, clear
Wind Description:	0, No wind	1.5	1.0

Moon affect: Less than 1st Quarter — Start: / Stop:

Number of nets/traps: (label and include size and configuration) A = 3x9m B = 3x12m C = 1x9m D = 1x6m

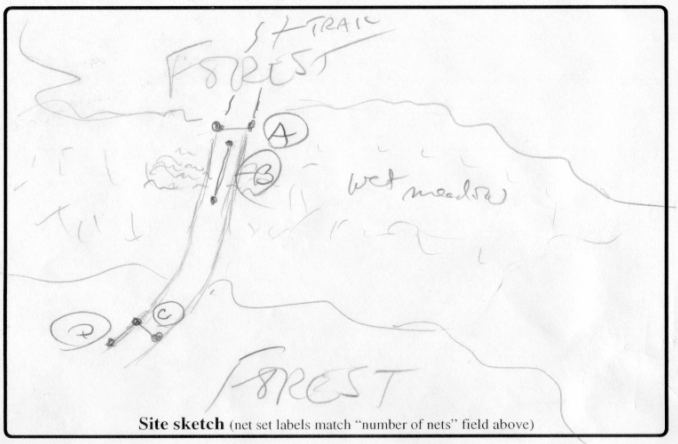
Site Description: (include dominant species and stream data) Nets A & B in mixed woodland wet meadow with grasses & trees ranging fr. 1-2m high. Some snaps at the forest edge. Nets C & D on ridge w/ mixed pine & hardwoods & white birch & pine.

Anderson Level II:	most common+distance		2nd common+distance		3rd common+distance	
	50m	62	100m	43	200m	43
Disturbance codes:	1	H	2	H	3	H

Remarks: (observations, other wildlife, etc.)

Site not sampled a second night.

This site is located in Vermont.



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page ____ of ____

Project: New Hampshire Bats County: Windham Site #: 5 Site Name: Putney NIGHT 1 Mtn. Date: 7/14/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
										1
	NO	BATS			CAPTURED					2
										3
										4

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: CheshiRe	Site #: 6	Night #: 1	Site Name: Stoddard	Date: 7/16/02
Latitude: 43 0 53.66	Longitude: 72 11 6.38			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, E. Russell, M. Clark, C. Helmbaldt				Actual net open time: 8:30	Actual net close time: 2:15

Sky Conditions:	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
	8:30 clear 59.0F	12:30, clear, 49.6	1:30, 48.9, clear
Wind Description:	1	0	0

Moon affect: Moon may only be affecting NOT D. 1st Quarter — Start: 8:30 / Stop:

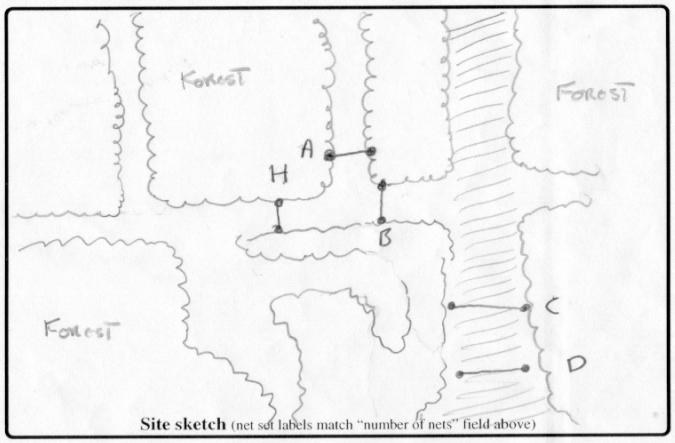
Number of nets/traps: (label and include size and configuration) A: 3Hx12m B: 2x6m C: 3x9m D: 1x9m H: Harp Trap

Site Description: (include dominant species and stream data) Red Maple, Eastern Hemlock, A few White Pine. TRAPS H, A, & B ARE ON JEEP TRAILS NEAR BRANCH OF OTTER BROOK. TRAPS C, D ARE OVER OTTER BROOK which is 10m wide AND 0.5m DEEP w/ Rocky Bottom. TRAP D is JUST UPSTREAM of BEAVER POND.

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	51 | 0	52 | 200m
Disturbance codes:	1 | H	2 | N	3 | C

Remarks: (observations, other wildlife, etc.) SITE IS COMBINATION OF JEEP TRAILS, SMALL FOREST CLEARINGS, AND 10m WIDE STREAM

ELEVATION 1140



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 — Page 1 of 1

Project: New Hampshire Bats — County: CheshiRe — NIGHT 1 — Site #: 6 — Site Name: Stoddard — Date: 7/16/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
8:45	L. BROWN	A	F	LAC	7.7	39.8	4m	B	11118	1
8:45	L. BROWN	A	F	LAC	7.0	37.3	4.5m	C	11119	2
8:55	L BROWN	A	F	LAC	7.2	39.1	4.5m	C	11120	3
9:35	N. LONGEAR	A	F	LAC	7.1	36.7	2m	B	11121	4
9:40	L. BROWN	A	F	NR	7.1	38.6	4m	C	11122	5
9:55	N. LONGEAR	A	F	LAC	8.1	37.3	1.5m	A	11123	6
8:45	MYOTIS —	—	—	—	—	—	4m	C	—	ESCAPED NOT 7
10:15	L. BROWN	A	M	NR	7.7	39.9	3.5m	C	11124	8
12:10	L. BROWN	A	M	NR	7.5	35.7	2.5m	C	11125	9
1:00	L. Brown	A	F	NR	7.4	36.9	—	H	11126	10
										11

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire	County: Cheshire	Site #: 6	Night #: 2	Site Name: Stoddard (Otter Brook)	Date: 17 July 02
Latitude: 43 ° 53.66	Longitude: 72 11 6.38			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, E. Russell, M. Clark				Actual net open time: 8:45	Actual net close time: 2:30

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	9:00 68°F P. Cloudy	12:30, 61.5°F, clear skies, slight fog	2:00 61°F clear
Wind Description:	0.5	0	0

Moon affect: 1st quarter - cloudy - may not be affecting net — Start: 8:30 / Stop:

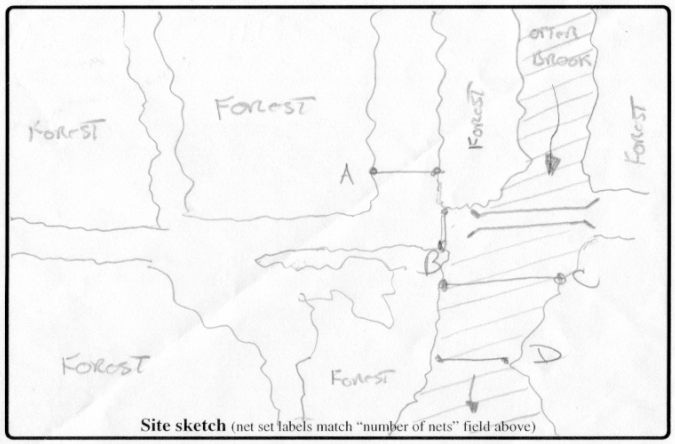
Number of nets/traps: (same as last night - w/o harp trap) A = 3h x 12m B = 2h x 6m C = 3H x 9m D = 1x9m
(label and include size and configuration)

Site Description: Combination of Jeep trails, 10m wide stream, and small
(include dominant species and stream data)
forest clearings nearby. Hemlock, W. Pine, R. Maple

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	51 | 0	52 | 200m
Disturbance codes:	1 | H	2 | N	3 | C

Remarks:
(observations, other wildlife, etc.)

Elevation 1140



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 — Page 1 of 1

Project: New Hampshire County: Cheshire Night 2 Site #: 6 Site Name: Stoddard (Otter Brook) Date: 17 July 02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:00	N. long-eared	A	F	L	7.6	37.3	3m	B	11127	1
9:10	Little brown	A	F	L	8.5	38.5	3m	B	11128	2
9:15	Little brown	A	F	NR	7.3	38.3	2m	D	11129	right eye sore fur around it 3
9:00	Little brown	A	F	L	7.2	37.5	2m	D	11130	4
9:00	Little brown	A	F	L	7.4	39.5	5m	C	11131	5
10:15	Little Brown	J	F	NR	5.8	36.6	2.5m	C	11132	6
11:15	Little Brown	J	F	NR	6.2	38.1	2	D	11134	7
11:15	Little Brown	A	F	L	7.5	38.9	2	D	11136	#11135 was defective BAND 8
11:15	escapee							C		9
11:45	escapee							D		10
1:00	N. Longear	A	F	L	7.1	37.3	2.5	B	11133	11
1:15	Little Brown	A	F	NR	7.7	39.2	3m	C	~~11137~~	Did not band 12
11:30	Little Brown	A	M	NR	6.7	37.9	2m		11137	13
										14

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire	County: Carroll	Site #: 7	Night #: 1	Site Name: Passaconaway		Date: 4 July '02
Latitude: 43 59 39.21	Longitude: 71 20 15.05			ID By: John Chenger		Kit ID:
Observers: MR Clark, Kathy Starke, Joanna Peters				Actual net open time: 8:30 p.m.	Actual net close time: 2:00 a.m	
Sky Conditions:	dusk, note time+temp+description: clear 75°F 9:00		mid-sample, note time+temp+description: 11:30 65.7 Clear		end, note time+temp+description: 2100 clear 65°F	
Wind Description:	0		0		0	

Moon affect: N/A — Start: — Stop:

Number of nets/traps: (label and include size and configuration) B = 3x9 A = 3x6

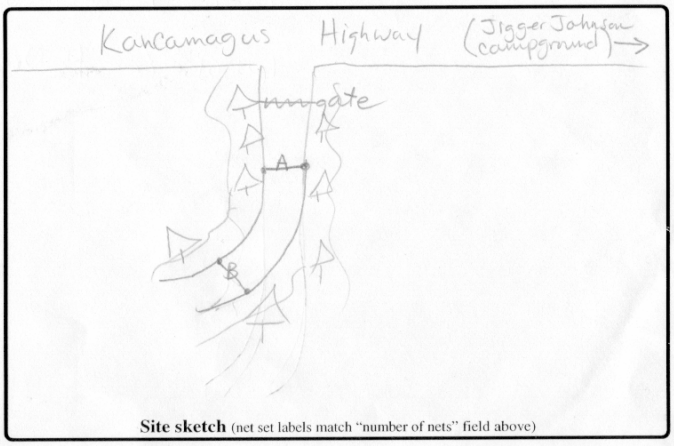
Site Description: (include dominant species and stream data) Mixed conifer-hardwoods / red spruce maple / beech w/some mixed yellow birch / balsam fir / group selection harvest ~ 88

canopy species are pine, spruce, fir; understory = spruce, fir, red maple, beech

nets are over the road

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	51	0.5Km	42	1Km
Disturbance codes:	1	H	2	G	3	I

Remarks: (observations, other wildlife, etc.) Site where possible M sodalis axes captured in 1992 by Rachel Stevenson



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 — Page 1 of 1

Project: New Hampshire — County: Carroll — Site #: 7 — Site Name: Passaconaway — Night 1 — Date: 4 July '02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:00	Myotis Lucy	A	m	NR	7.5	39.6	4.5	B	10257	1
9:05	Eptesicus fuscus	A	m	NR	15.1	45.2	4.5	B	10256	2
9:10	Eptesicus fuscus	A	m	NR	16.7	46.9	5.0	A	10255	Testes 8.9 x 5.0 3
915	Myotis Lucy.	A	m	NR	7.0	38.1	3.5	B	10258	4
10:00	Eptesicus fuscus	A	m	NR	18.4	43.3	2m	B	10253	Recaptured at 10:30 in net B 5
10:00	Eptesicus fuscus	A	m	NR	18.5	45.0	3m	B	10252	6
10:10	Eptesicus fuscus	A	m	NR	15.2	42.1	2m	B	10251	7
10:30	Eptesicus fuscus	A	m	NR	22.0	44.8	3	B	10254	Testes 12.1 x 4.8 8
11:30	Eptesicus fuscus	A	m	NR	15.5	46.0	6	A	10259	9
1:15	Myotis Septentrionalis	A	m	NR	7.5	38.0	3	B	10260	10
2:30	Little Brown	A	M	NR	8.3	38.0	4	A	10261	11
										12

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire	County: CARROLL	Site #: 7	Night #: 2	Site Name: Passaconaway NIGHT 2	Date: July 5, 2002
Latitude: 43 59 39.21	Longitude: 71 20 15.05			ID By: John Chenger	Kit ID:
Observers: MK Clark, Carrie Spradlin				Actual net open time: 8:30 pm	Actual net close time: 2:00

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	clear 60.8°F @ 8:30 p.m.	11:45pm 59.2°, slightly overcast	2:00am 58.5 clear
Wind Description:	8:30 - intermittent strong breeze	11:45 - No wind	2:00a.m. - no wind

Moon affect: N/A

Start:

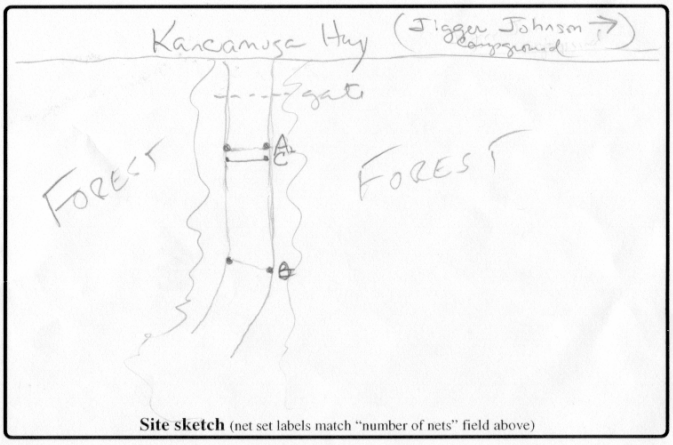
Stop:

Number of nets/traps: (label and include size and configuration) B = 3×9 A = 3×6 C = 1×6 (C set to cover gap amlen net A)

Site Description: (include dominant species and stream data) Mixed conifer-hardwood; balsamfir; red spruce maple, beach w/some yellow birch. Group selection harvest 1988. Canopy = pine; spruce; fir. Understory = spruce; fir; red maple; beech. Nets located over forest road

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	51	0.5km	42	1km
Disturbance codes:	1	H	2	G	3	I

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page 1 of ____

Project: New Hampshire County: CARROLL Site #: 7 Site Name: Passaconaway NIGHT 2 Date: July 5, 2002

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:30	Little Brown	A	m	NR	6.7	37.5	3.5m	A	10264	1
10:15	Big Brown	A	m	NR	15.0	45.6	3	A	10261	2
16:30	N. Longeared	A	F	NR	9.1	36.8	2	B	10263	3
1:30	N. Long-eared	A	m	NR	9.2	41.6	3	B	10265	4
2:15	N. long-eared	A	M	NR	8.9	36.6		B	10266	5
										6
										7

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: N.H.	County: Coos	Site #: 8	Night #: 1	Site Name: Basin Brook		Date: 6 July 02
Latitude: 44 16 6.36	Longitude: 71 0 41.27			ID By: J. Chenger		Kit ID:
Observers: J. Chenger, M. Clark, E. Russell, K. Starke, J. Peters, C. Spradlin				Actual net open time: 8:30 p.m.		Actual net close time: 2:00

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	9:30 65°F overcast	11:55, 59.9°F, overcast, slight rain	2:00 58°F overcast
Wind Description:	1	1	0

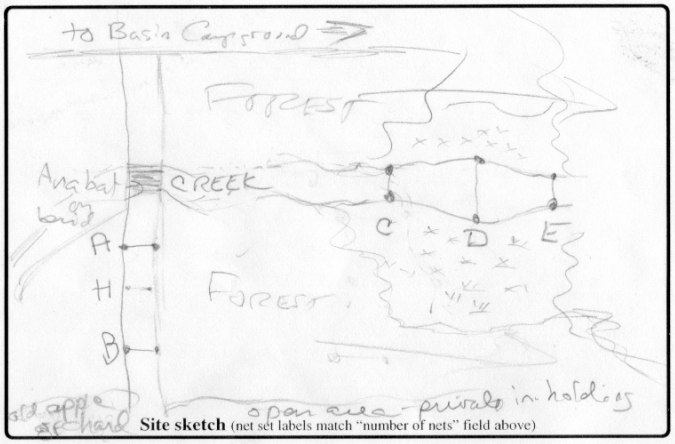
Moon affect: no affect new moon, moon rise @ — Start: / Stop:

Number of nets/traps: (label and include size and configuration) A = 1x 6m B = 1x4 C = 2x6 D = 3x12 E = 1x9 H = harp

Site Description: (include dominant species and stream data) A, H & B are on an unimproved road Sugar maple, ASH, Yellow Birch, Paper Birch, Pine net sites D & E are in a beaver pond impoundment - open w/grasses; ferns; dead trees C is in the forest nr. where creek starts to open to beaver impoundment

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	51 | 0	52 | 0.5km
Disturbance codes:	1 | H	2 | N	3 | I

Remarks: (observations, other wildlife, etc.) @ 8:45a bat was seen flying high in open space above net "D" as we were adjusting the tension on the poles. Contrast in color on wing & finger skin was noted. Flight behavior & size along w/ color = probable red bat. Light rain shower between 11:00 and 11:30



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page 1 of 1

Project: NH County: Coos NSHH 1 Site #: 8 Site Name: Basin Brook Date: 6 July 02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:30	Little Brown	A	M	NR	7.7	37.4	2m	C	11039	1
9:45	N. long-eared	A	F	Preg	10.3	37.4	.75m	A	11040	2
10:45	Myotis							H	escaped	3
1:45	N. Long-ear	A	M	NR	6.8	34.2	1m	A	11041	4
										5
										6
										7
										8
										9

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Coos	Site #: 8	Night #: 2	Site Name: Basin Brook	Date: 7/7/02
Latitude: 44 16 6.36	Longitude: 71 0 41.27			ID By: J. Cherger	Kit ID:
Observers: J. Cherger, M. Clark, E. Russell, K. Starke, J. Peters, C. Spradlin, A. Porter				Actual net open time: 8:45	Actual net close time: 2:30

Sky Conditions:	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
	9:00, 67.5°F, partly cloudy	midnight 62.4°F clear	2:30, 55.8, clear
Wind Description:	2	1	1

Moon affect: N/A

Start:

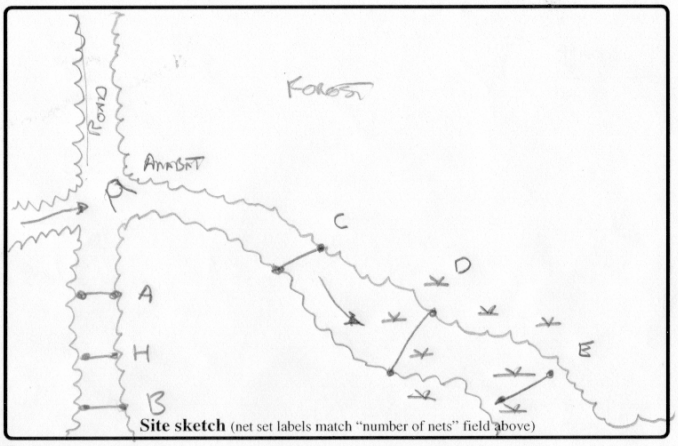
Stop:

Number of nets/traps: (label and include size and configuration) A= 1x 6m, B= 1x4m C= 2x 6m D= 3x 12m E = 1x 9m H = Harp Trap

Site Description: (include dominant species and stream data)

	most common+distance		2nd common+distance		3rd common+distance	
Anderson Level II:	43	0	51	0	52	0.5 Km
Disturbance codes:	1	H	2	N	3	I

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

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Project: New Hampshire Bats County: Coos NIGHT 2 Site #: 8 Site Name: Basin Brook Date: 7/7/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments	
10:30	N. long-eared	A	F	NR	8.3	39.8	1m	B	11043	2 b.s strebilids	1
10:30	Unknown	—	—	—	—	—	2m	B	—	in net only by wing tip - escaped	2
12:15	N. long-eared	A	M	NR	7.8	36.6	1m	H	11042		3
11:30	Little brown bat	A	M	NR	8.0	36.7	—	B	11044		4
											5
											6

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire	County: Coos	Site #: 9	Night #: 1	Site Name: Godfrey Dam	Date: 8 July '02
Latitude: 44 29 1.21	Longitude: 71 19 11.39			ID By: John Chenger	Kit ID:
Observers: J. Chenger, M. Clark, E. Rossell, K. Rouse, D.				Actual net open time: 8:30pm	Actual net close time: 1:30

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	68° Cloudy @ 9:00 p.m	12:00 rain	1:30, rain
Wind Description:	0	0	0

Moon affect: N/A

Start:

Stop:

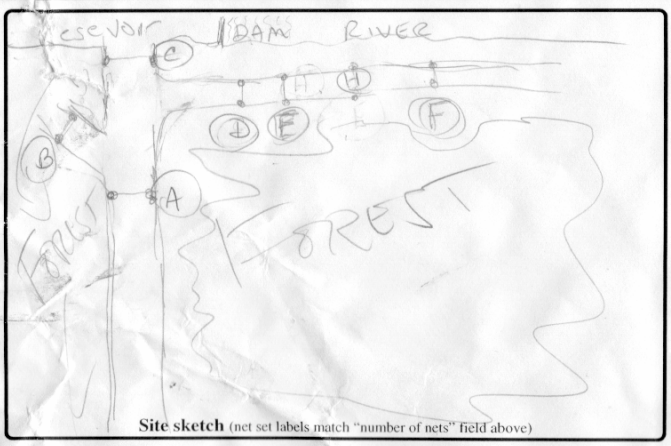
Number of nets/traps: (label and include size and configuration) A=3H×9m B=1H×4m C=3×12m D 1×6m E 1×6m F 2×6m H=harp

Site Description: (include dominant species and stream data)

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	53 | 20m	51 | 30m
Disturbance codes:	1 | H	2 | N	3 | I

Remarks: (observations, other wildlife, etc.) Captured hermit thrush

Rain started at 10:30 and was heavy until 11:15. Showers were intermittant for the remainder of the night. Became steady after 12:30.



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: New Hampshire County: Coos NIGHT 1 Site #: 9 Site Name: Godfrey Dam Date: 8 July 02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:15	little brown bat	A	M	NR	8.7	37.2	1	F	11046	1
9:15	Little brown bat	A	M	NR	7.4	38.0	2	F	11047	2
9:15	N. long-eared bat	A	F	NR	6.6	38.0	3	E	11049	3
9:15	little brown	A	M	NR	7.4	36.5	2	H	11048	4
9:15	N. long-eared	A	M	NR	6.5	35.9	/	H	11050	5
9:15	little brown	A	M	NR	6.7	43	/	H	11051	6
9:40	little brown	A	M	NR	8.2	38.0	5m	A	11045	7
9:40	little brown	A	M	NR	7.8	43.1	5m	A	11052	8
9:15	unknown						3	F		escaped 9
12:15	little brown	A	M	NR	6.9	41.1	3.5	E	11053	10
12:30	little brown	A	M	NR	6.8	39.2	3	D	11054	11
										12

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: Coos	Site #: 9	Night #: 2	Site Name: Godfrey Dam	Date: 7/9/02
Latitude: 44 29 1.21	Longitude: 71 19 11.39			ID By: J. Cheyger	Kit ID:
Observers: J. Cheyger, E. Russell, A. Porter, C. Persichilli, D. Witherell				Actual net open time: 8:45	Actual net close time: 2:00

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	9:00, 64.0°F, clear	12:00 63°F clear	61°F clear
Wind Description:	1.5	1	0

Moon affect: N/A

Start:

Stop:

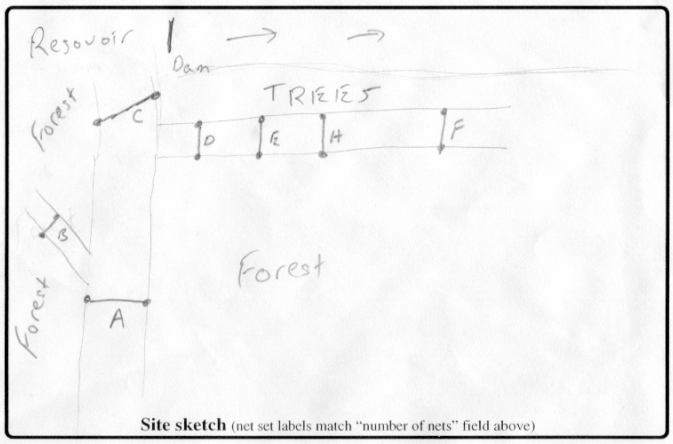
Number of nets/traps: (label and include size and configuration) A= 3H 9m B= 1H 4m C= 3H 12m D= 1H 6m E= 1H 6m F= 2H 6m H= Harp Trap

Site Description: (include dominant species and stream data) Forest Roads leading to Dam and Paralelling River

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	43 | 0	53 | 20m	51 | 30m
Disturbance codes:	1 | H	2 | N	3 | I

Remarks: (observations, other wildlife, etc.)

*Rain Shower Between 10:30 And 11:15



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: New Hampshire Bats County: Coos Night 2 Site #: 9 Site Name: Godfrey Dam Date: 7/9/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
2:50	N. Longear	J	M	NR	6.8	35.1	2M	B	11055	light colored 1
10:10	Unknown	—	—	—	—	—	5m	A	—	escaped net 2
10:40	Little Brown	A	M	NR	8.3	39.5	3m	F	11056	— 3
10:40	N. Longear	A	F	NR	8.9	35.7	10 m	C	11057	— 4
1:00	Little Brown		M						11054	Recapture 5
1:00	Myotis sp.	—	—	—	—	—	—	—	—	escaped net 6
1:00	Little Brown	A	M	NR	8.8	39.5	—	H	11058	angry + biting alot 7
2:10	Little Brown	A	M	NR	8.0	37.1	—	H	11059	8
										9
										10

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: GRAFTON	Site #: 10	Night #: 1	Site Name: ELBOW POND	Date: 7-10-02
Latitude: 43 58 50.07	Longitude: 71 44 4.06			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, D. Batchelder, M. Morren				Actual net open time: 8:30	Actual net close time: 1:30

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	53°F 8:30 CLEAR	45.8°F 12:00 Clear, calm	45.3°F CLEAR 1:30
Wind Description:	0	0	0

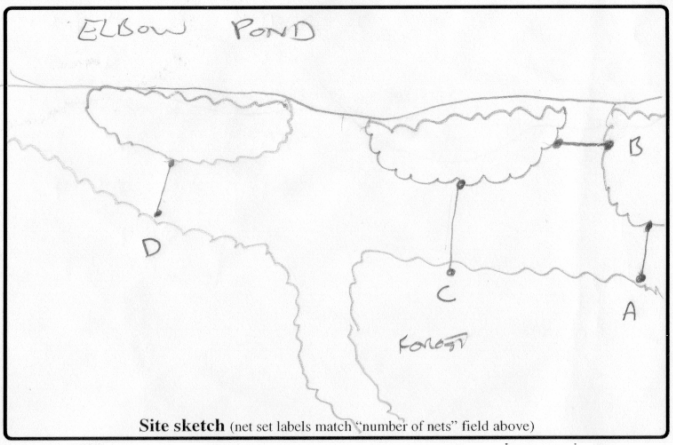
Moon affect: N/A Start: Stop:

Number of nets/traps: (label and include size and configuration) A: 1H×4m B: 1H×6m C: 3H×9m D: 3H×6m

Site Description: (include dominant species and stream data) MAPLE Yellow BIRCH, PAPER BIRCH, Beech Hemlock, ACCESS ROAD Parallling ELBOW LAKE.

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	41 | 0	52 | 15m	43 | 1Km
Disturbance codes:	1 | I	2 | B	3 | H

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 – Page 1 of 1

Project: NH County: GRAFTON Site #: 10 Site Name: ELBOW POND NIGHT 1 Date: 7-10-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
9:00	Little Brown	Adult	M	NR	7.6	38.0	2m	C	11060	1
9:05	Little Brown	Adult	m	NR	7.7	39.4	2m	A	11061	2
9:05	Little Brown	Adult	M	NR	8.2	40.8	1m	B	11062	3
9:10	Little Brown	Adult	m	NR	7.8	37.8	3m	A	11063	4
9:10	Little Brown	Adult	m	NR	7.7	36.6	2m	C	11064	5
9:15	Little Brown	Adult	m	NR	7.4	37.5	2m	B	11065	6
9:18	Little Brown	Adult	m	NR	7.4	37.5	3m	A	11066	7
10:10	Little Brown	Adult	m	NR	7.2	39.1	3m	C	11067	8
10:10	Little Brown	Adult	m	NR	7.2	35.7	4	B	11068	9
10:15	Little Brown	Adult	M	NR	7.2	38.5	2m	B	11069	10
10:20	Little Brown	Adult	M	NR	7.3	39.5	2m	A	11070	11
12:00	Little Brown	Adult	m	NR	9.8	39.5	2	B	11071	12
10:20	Little Brown	Adult	m	NR	7.1	38.6	4	A	11072	13
10:30	Northern Long Eared	Adult	F	NR	7.0	37.0	2	B	11073	14
10:40	Little Brown	Adult	M	NR	7.0	38.0	3m	B	11074	15
10:40	Little Brown	Adult	M	NR	7.6	39.4	2m	C	11075	16
10:45	Little Brown	Adult	M	NR	7.0	38.8	3m	C	11076	17

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: New Hampshire Bats	County: GRAFTON	Site #: 10	Night #: 2	Site Name: Elbow Pond	Date: 7/11/02
Latitude: 43 58 50.07	Longitude: 71 44 4.06			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, E. Russell, M. Moren, D. Batchelder, C. Welch				Actual net open time: 8:30	Actual net close time: 2:00

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	8:45 clear, 56.0°F	12:15, 51.6, clear	49.8 2:00 clear
Wind Description:	2 Breezy	1 Light Breeze	0

Moon affect: N/A

Start:

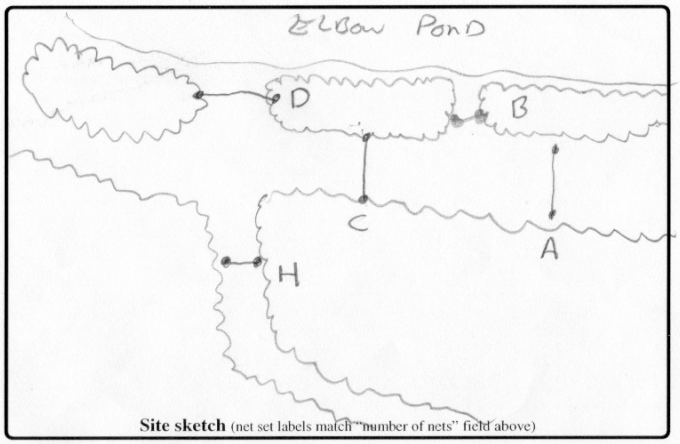
Stop:

Number of nets/traps: (label and include size and configuration) A: 1Hx4m B: 1Hx6m C: 3Hx9m D: 3Hx12m H: 6x8 Harp Trap

Site Description: (include dominant species and stream data) Access Roads Paralelling Elbow Pond

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	41 | 0	52 | 15m	43 | 1Km
Disturbance codes:	1 | I	2 | B	3 | H

Remarks: (observations, other wildlife, etc.)



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Page 1 of 1

Project: New Hampshire Bats County: GRAFTON Site #: 10 Site Name: Elbow Pond Night 2 Date: 7/11/02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments	
9:35	N. Longear	A	F	NR	9.2	37.6	2m	A	11081		1
9:50	Little Brown	A	m	NR	8.1	39.2	2m	A	11077		2
10:10	N. Longear	A	F	NR	8.7	38.6	2m	B	11079		3
10:30	N. Longear	A	M	NR	6.1	35.5	1.5	A	—	Did not band	4
10:50	Little Brown	A	M	NR	7.2	39.0	2m	A	11078		5
11:00	Little Brown	A	M	NR	8.3	39.4	3m	B	11080		6
11:45	N. Longear	A	F	NR	7.3	37.5	1.5m	C	11082		7
11:45	N. Longear	A	F	NR	10.0	37.6	2.M	C	11083		8
11:30	MYOTIS	—	—	—	—	—	6M	D	—	ESCAPED	9
12:45	Little Brown	A	M	NR	8.3	37.9	3m	A	—	Not Banded	10
1:30	Little Brown	A	M	NR	7.1	37.5	4m	D	11084		11
											12
											13

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: CARROLL	Site #: 11	Night #: 1	Site Name: OLIVERIAN BROOK	Date: 7-4-02
Latitude: 43 59 15.06	Longitude: 71 20 39.94			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, A. Porter, C. Costello, C.				Actual net open time: 8:30	Actual net close time: 2:00

Sky Conditions:	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
	75 clear 9:00	12:00 68 Clear	1:45 65 clear
Wind Description:	0	0	0

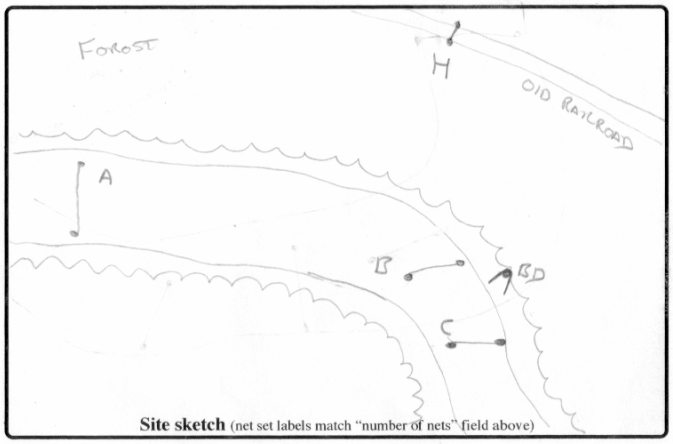
Moon affect: None — Start: — Stop:

Number of nets/traps: (label and include size and configuration) A: 1H x 12m B: 1H x 12m C: 1H x 12m H: 6' Harp Trap BD-Bat Detector

Site Description: (include dominant species and stream data) Birch Beech maple, Spruce white Pine. Meandering Stream with large pools separated by short gravel bars. Nets placed under canopy overhangs.

Anderson Level II:	most common+distance	2nd common+distance	3rd common+distance
	51 0	43 15m	42 0.5Km
Disturbance codes:	1 N	2 I	3 G

Remarks: (observations, other wildlife, etc.) Tremendous Insect and Bat Activity From 9:30 – 10:30. Bat Activity ceased abruptly at 10:45. Activity seemed to increase At 1:30. Campers upstream had Smokey Fire From 9:30 – 11:00



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 — Page 1 of 1

Project: NH — County: CARROLL — Site #: 11 — Site Name: OLIVERIAN BROOK — Date: 7-4-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments	
9:30	L. Brown	A	M	NR	7.6	34.3	1.5m	A	11034		1
9:30	L. Brown	A	M	NR	7.1	38.8	2m	A	11035		2
10:00	L. Brown	A	M	NR	7.4	35.5	2.5m	A	11036		3
10:30	L. Brown	A	M	NR	8.2	37.7	1m	B	11037		4
12:30	UNK	—	—	—	—	—	1m	C	—	ESCAPED NET	5
1:40	N. Longear	A	M	NR	6.5	35.1	—	H	11038	HARP TRAP	6
											7

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: CARROLL	Site #: 11	Night #: 2	Site Name: OLIVERIAN BROOK	Date: 7-5-02
Latitude: 43 59 46.84	Longitude: 71 20 38.74			ID By: J. Chenger	Kit ID:
Observers: J. Chenger JOANNA PETERS, KATHY STARKE, E. RUSSEL				Actual net open time: 8:30	Actual net close time: 2:00

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	Cloudy 62°F 9:00	12:00 59°F Clear	2:00 58°F Clear
Wind Description:	2 Slightly Breezy	1 occasional breeze	0

Moon affect: None — Start: / Stop:

Number of nets/traps: (label and include size and configuration) A: 2H x 12m B: 2H x 9m

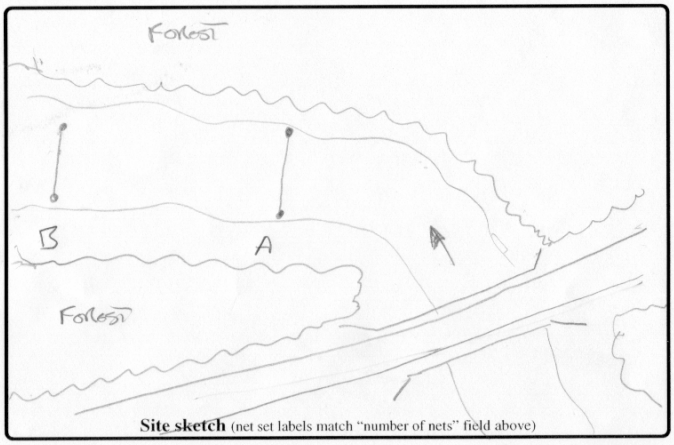
Site Description: (include dominant species and stream data) Birch, Beech, Maple, White Pine, Spruce. Meandering stream with few riffles, less than 0.5m deep, 12m wide. Nets placed in an under Partially fallen trees across river.

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	51 | O	42 | 50m	43 | 300m
Disturbance codes:	1 | G	2 | I	3 | N

Remarks: (observations, other wildlife, etc.)

No bat activity observed with night vision equipment

* Site moved downstream 1 Km from last night



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246 Page 1 of 1

Project: NH County: CARROLL NST 2 Site #: 11 Site Name: OLIVERIAN BROOK Date: 7-5-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
	NO BATS CAPTURED									1
										2
										3
										4
										5

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH	County: Sullivan	Site #: 12	Night #: 1	Site Name: Twin Bridges	Date: 7-18-02
Latitude: 43 12 7.5	Longitude: 72 7 35.09			ID By: J. Chenger	Kit ID:
Observers: J. Chenger, E. Russell, Susi V.				Actual net open time: 8:40	Actual net close time: 1130

	dusk, note time+temp+description	mid-sample, note time+temp+description	end, note time+temp+description
Sky Conditions:	70°F 9:00 overcast	63.7°F, 12:30, Overcast	64.0 Overcast 1130
Wind Description:	0	0	0

Moon affect: N/A

Start:

Stop:

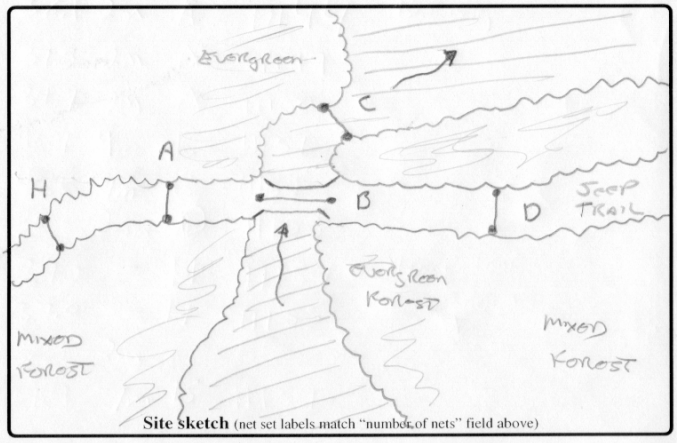
Number of nets/traps: (label and include size and configuration) A: 1Hx6m B 3Hx9m C 1Hx9m D: 1Hx4m H: 6' Harp Trap

Site Description: (include dominant species and stream data) Construction of pondoo water at footbridges. Water is 1' deep or less w/ Rocky bottom, 10m wide at net site. Other nets on Jeep trail crossing knoll

	most common+distance	2nd common+distance	3rd common+distance
Anderson Level II:	51 | 0	42 | 0	41 | 150m
Disturbance codes:	1 | H	2 | N	3 | N

Remarks: (observations, other wildlife, etc.) Unmaintained Town Road

Surveyed for one night only



Site sketch (net set labels match "number of nets" field above)

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH County: Sullivan Site #: 12 Site Name: Twin Bridges Date: 7-18-02

Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
8:45	N. Longear	A	F	LAC	7.0	38.7	2m	A	11141	1
8:50	L. Brown	A	F	LAC	8.7	39.5	2m	A	11140	2
8:55	N. Longear	A	F	LAC	6.7	39.6	2m	B	11145	Bat Bug 3
9:00	L. Brown	A	F	LAC	9.1	39.6	2.5m	A	11142	4
9:00	L. Brown	A	F	LAC	7.4	36.3	2.5m	A	11143	5
9:20	L. Brown	A	M	NR	7.6	37.6	5m	B	11147	6
9:25	B. Brown	A	M	NR	18.1	45.3	5m	B	11148	7
9:25	L. Brown	A	F	NR	7.8	38.6	2.5m	B	11146	8
9:45	L. Brown	A	F	LAC	9.2	39.0	5m	B	11138	9
9:50	L. Brown	A	M	NR	9.0	38.5	2m	A	11139	10
10:05	N. Longear	A	F	NR	8.6	38.1	2m	A	11144	Bat Bug 11
10:30	N. Longear	A	F	NR	7.7	37.5	2m	A	11149	12
10:30	N. Longear	A	F	Lac	8.2	34.7	2m	A	11150	13
10:15	B. Brown	A	F	Lac	22.6	48.9	4m	B	11151	14
10:15	B. Brown	A	M	NR	21.4	46.6	7m	B	11152	15
11:10	N. Longear	A	F	LAC	7.8	36.6	2.5m	D	11153	16
11:15	L. Brown	A	M	NR	7.5	39.2	—	H	11154	Harp Trap 17
11:15	N. Longear	A	F	LAC	8.2	37.0	—	H	11155	Harp Trap 18
11:55	N. Longear	A	F	LAC	8.2	38.2	2m	D	11156	19
11:55	L. Brown	A	M	NR	7.8	39.4	7m	B	11157	20

Bat Survey Data Form

Bat Conservation and Management • 814-442-4246

Project: NH County: Sullivan Site #: 12 Night #: 1 Site Name: Twin Bridges Date: 7-18-02

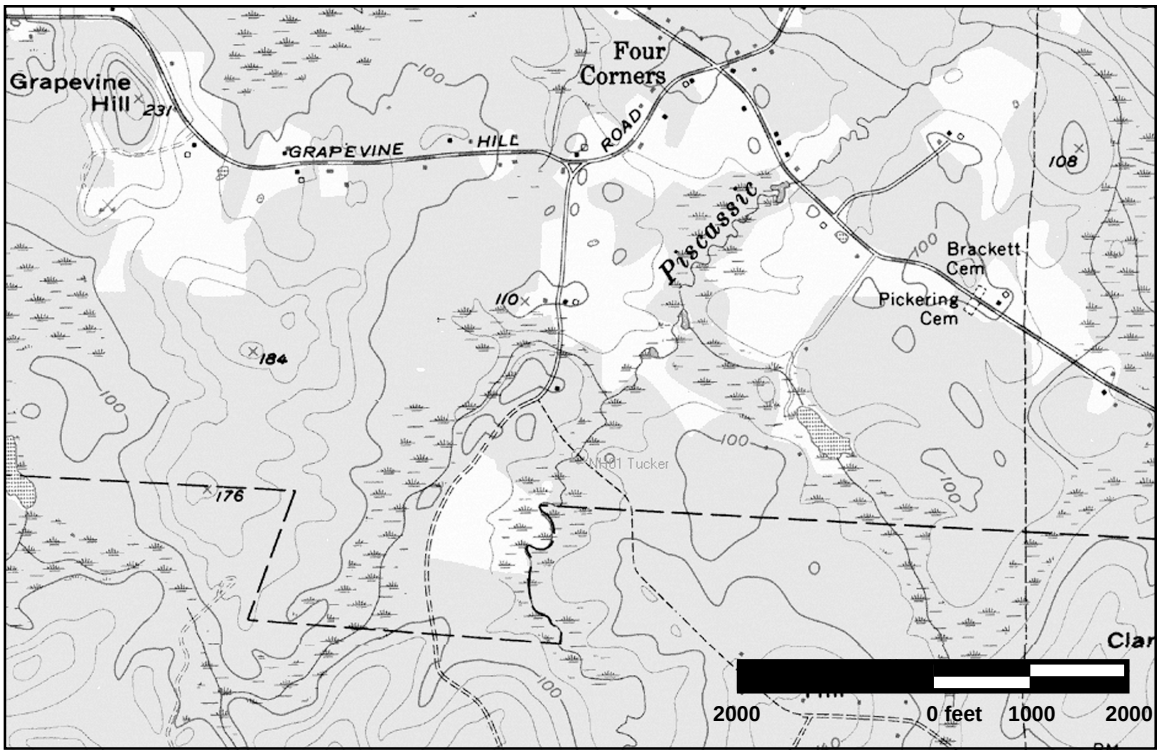
Time	Common name	Age	Sex	Reproductive Condition	Weight (grams)	Forearm Length	Height in net	Net Set	Band	Comments
12:15	N. Longear	A	F	LAC	8.0	36.2	—	H	11158	1
12:15	N. Longear	A	F	NR	8.1	36.0	—	H	11159	A few mites 2
12:35	N. Longear	A	M	NR	6.8	35.6	2m	A	11160	3
12:40	N. Longear	A	F	NR	8.0	37.5	—	H	11161	4
12:40	N. Longear	A	F	Lac	9.0	38.3	—	H	11162	5
										6
										7

Appendix B

Site Location Maps

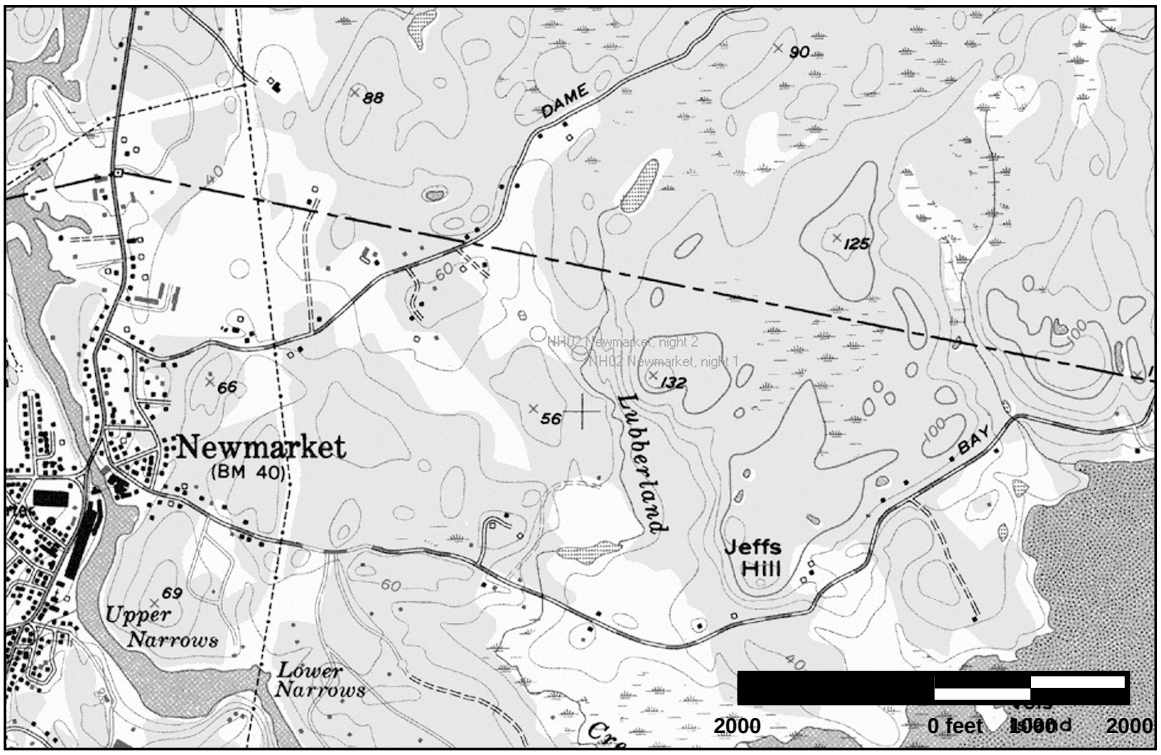
Site 1

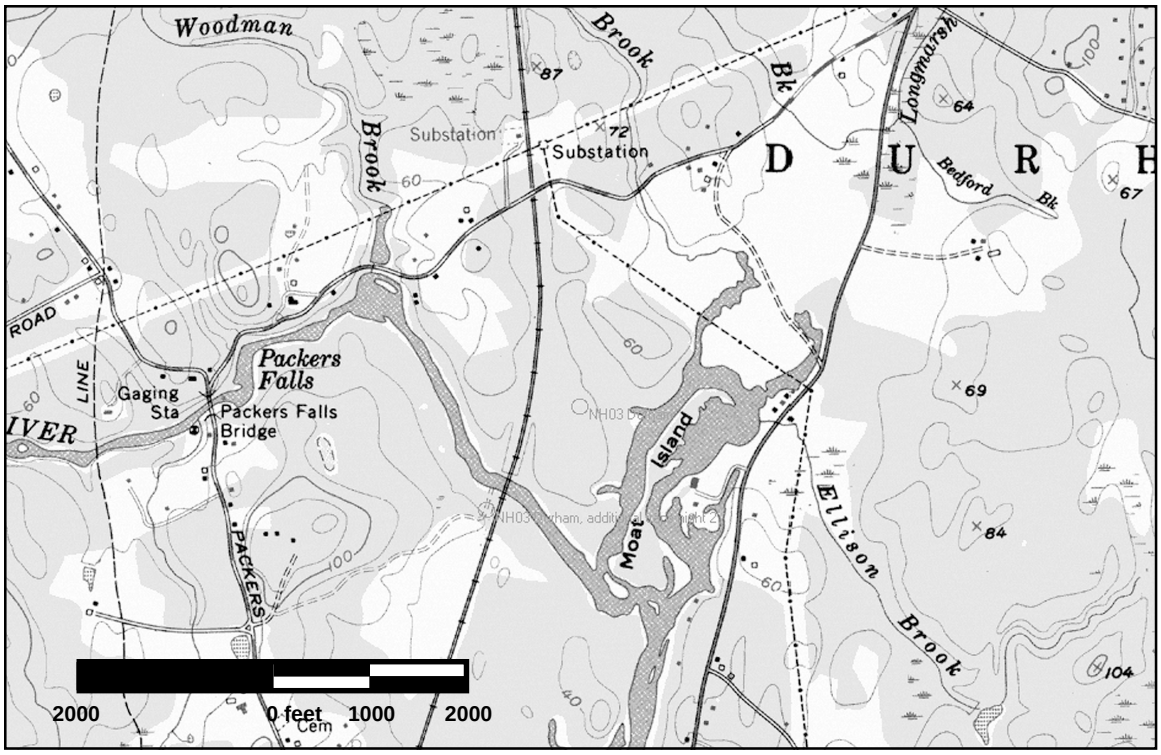
Newmarket 7.5' Quadrangle



Site 2

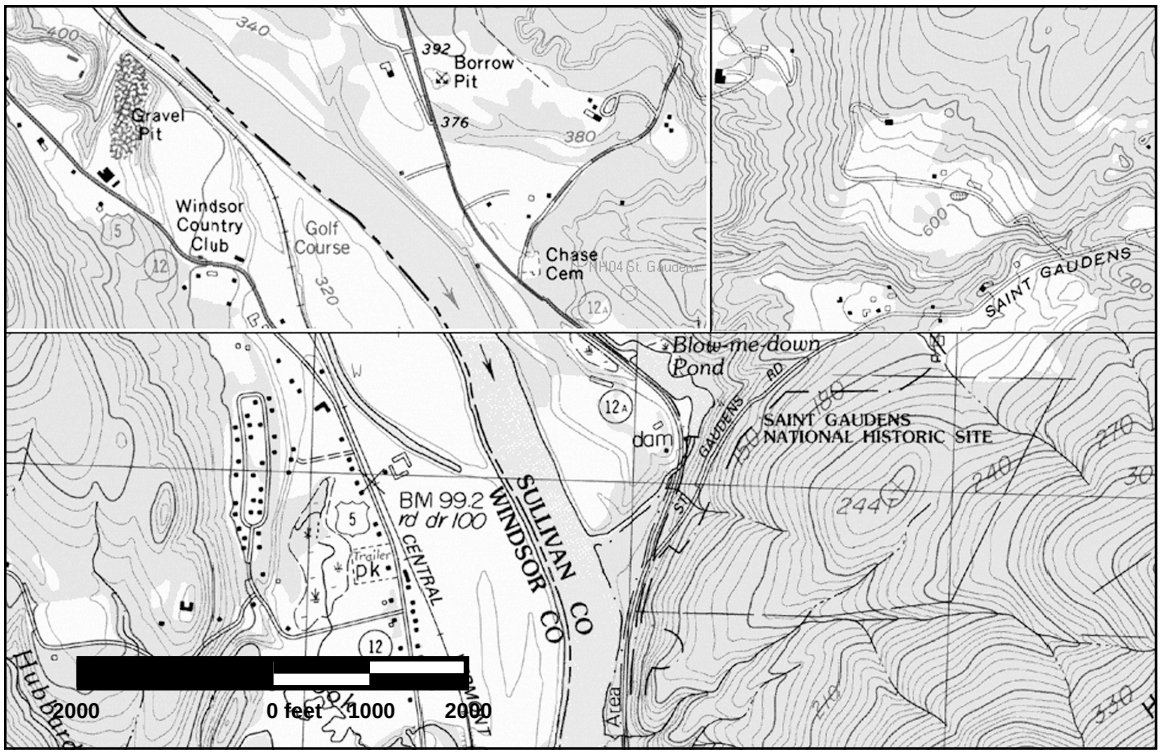
Newmarket 7.5' Quadrangle





Site 3

Newmarket 7.5' Quadrangle

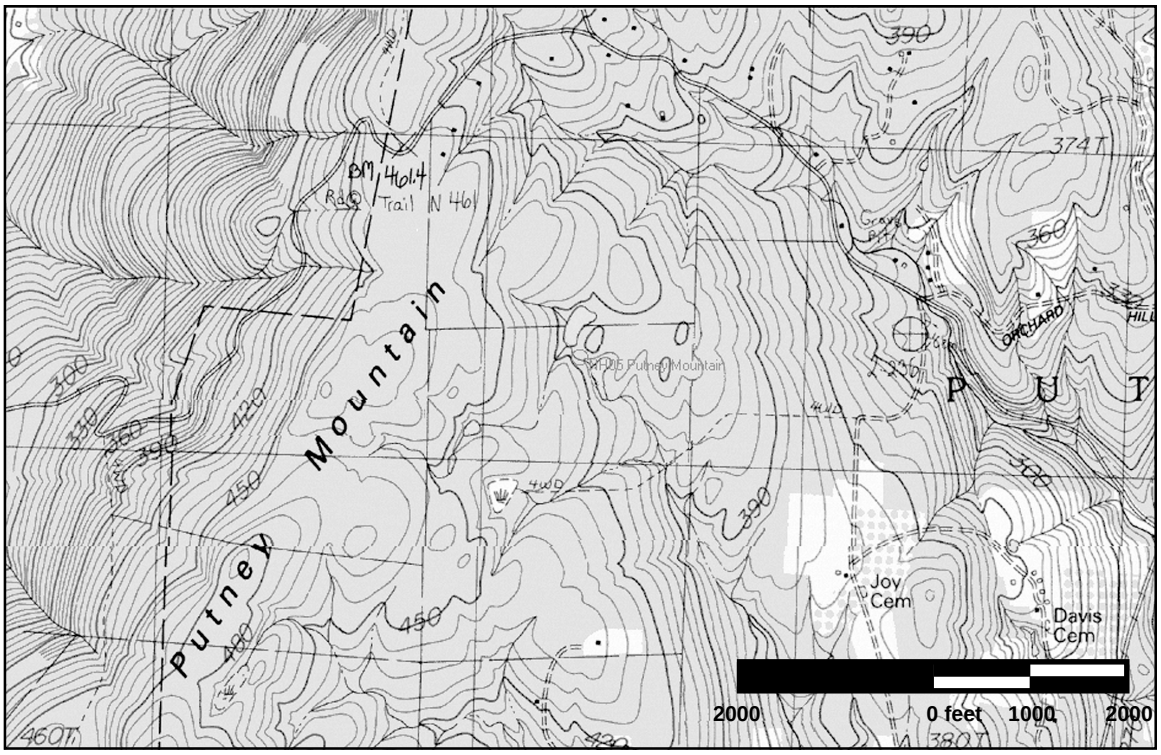


Site 4

Hartland 7.5' Quadrangle

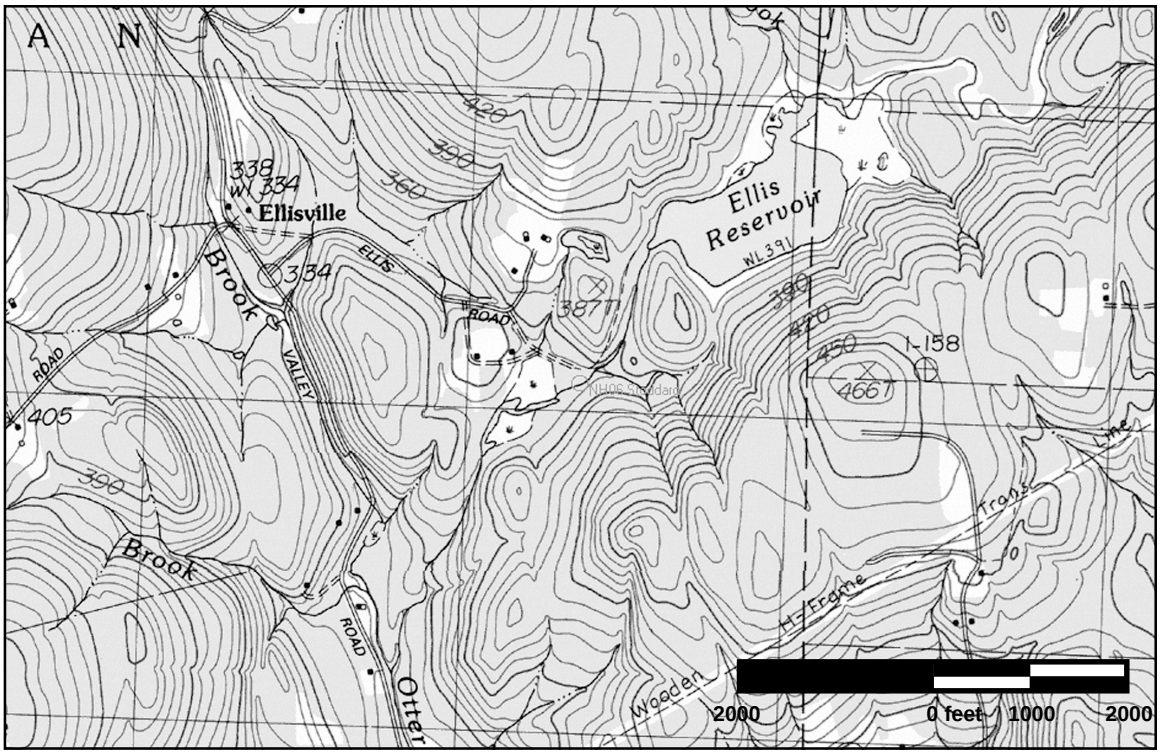
Site 5

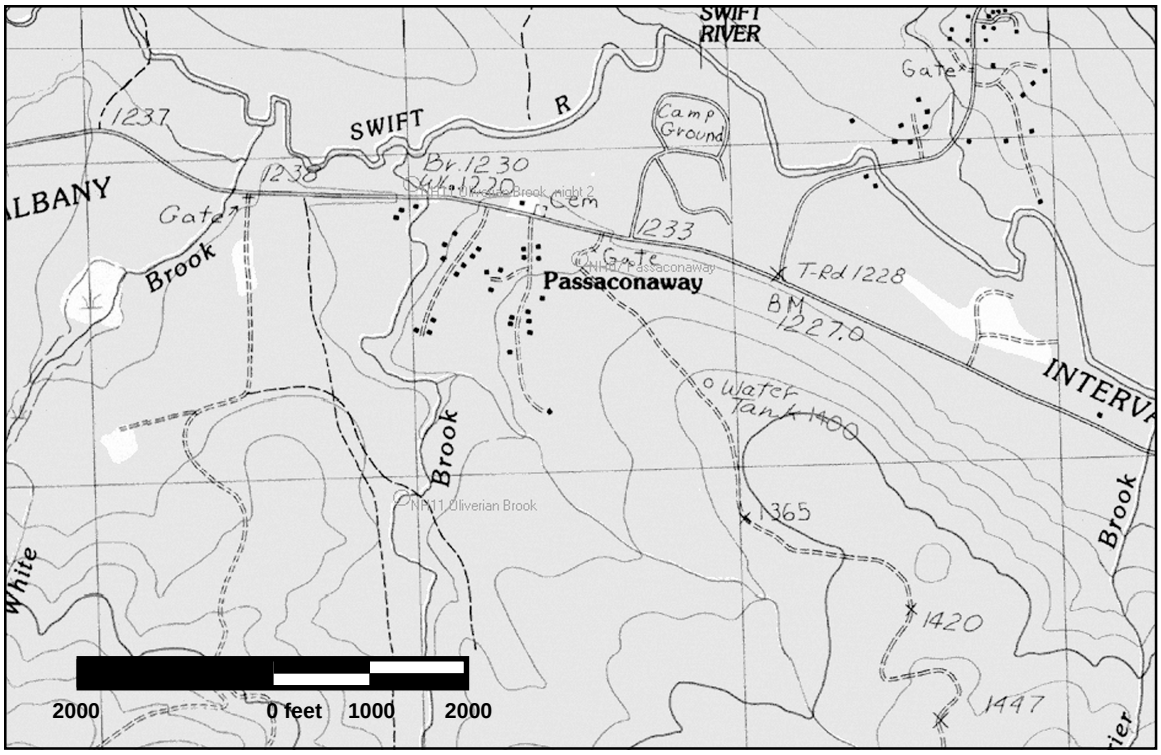
Newfane 7.5' Quadrangle



Site 6

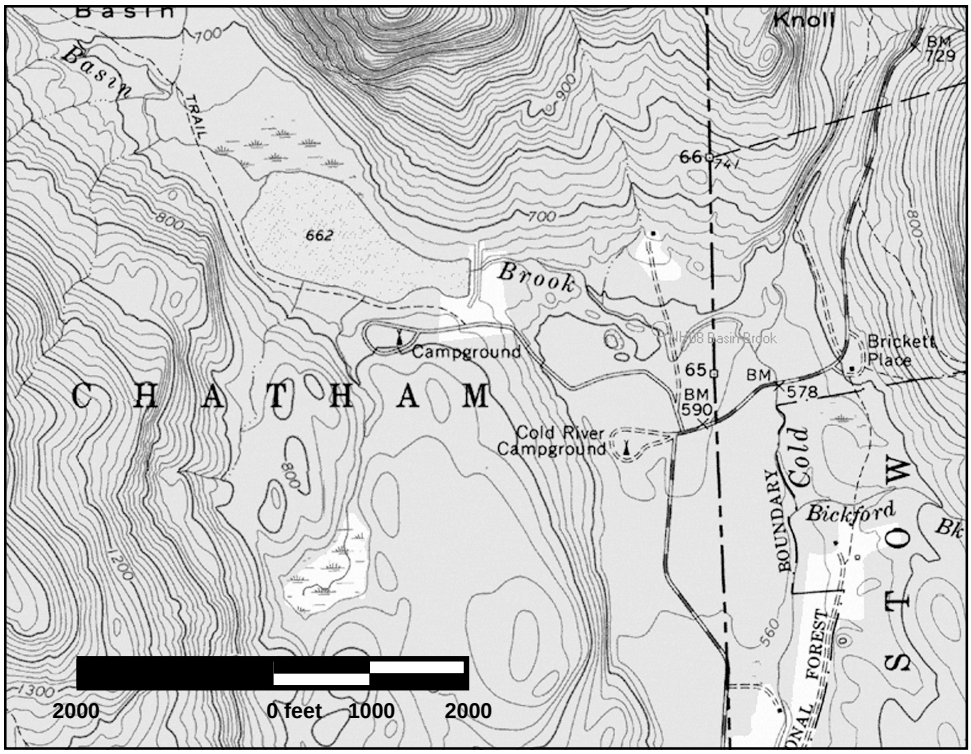
Stoddard 7.5' Quadrangle





Site 7 and 11

Lake Winnipesaukee 7.5' Quadrangle

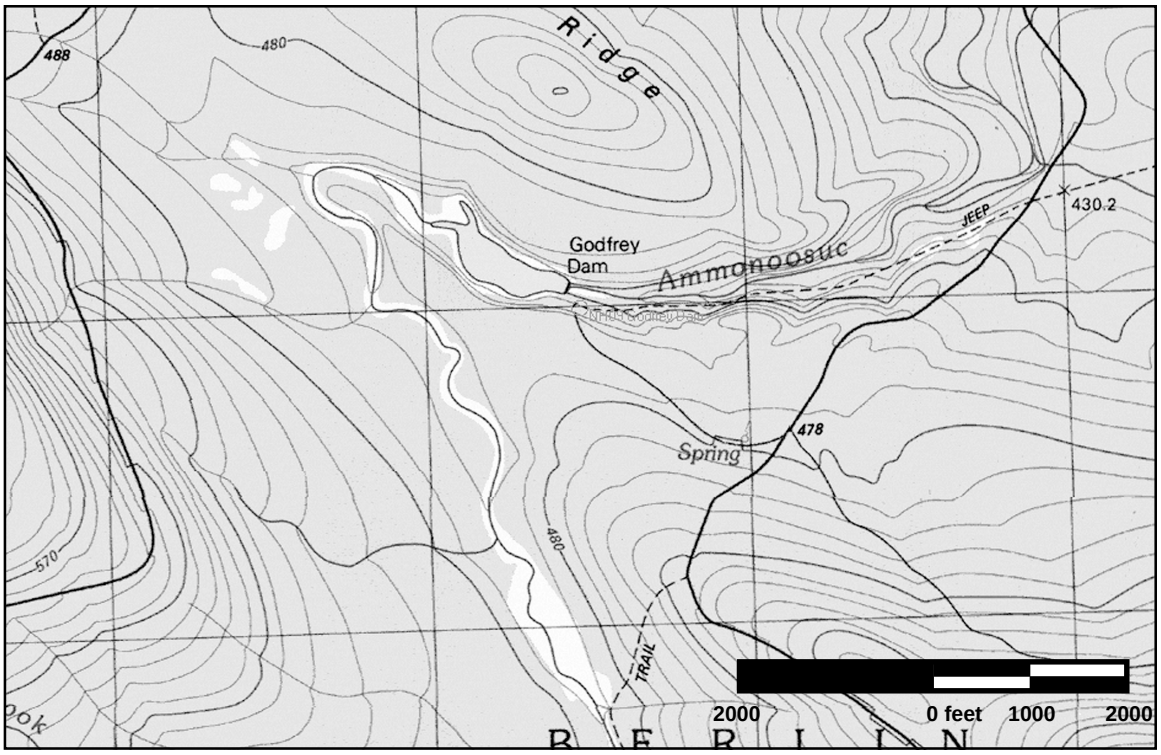


Site 8

Wild River 7.5' Quadrangle

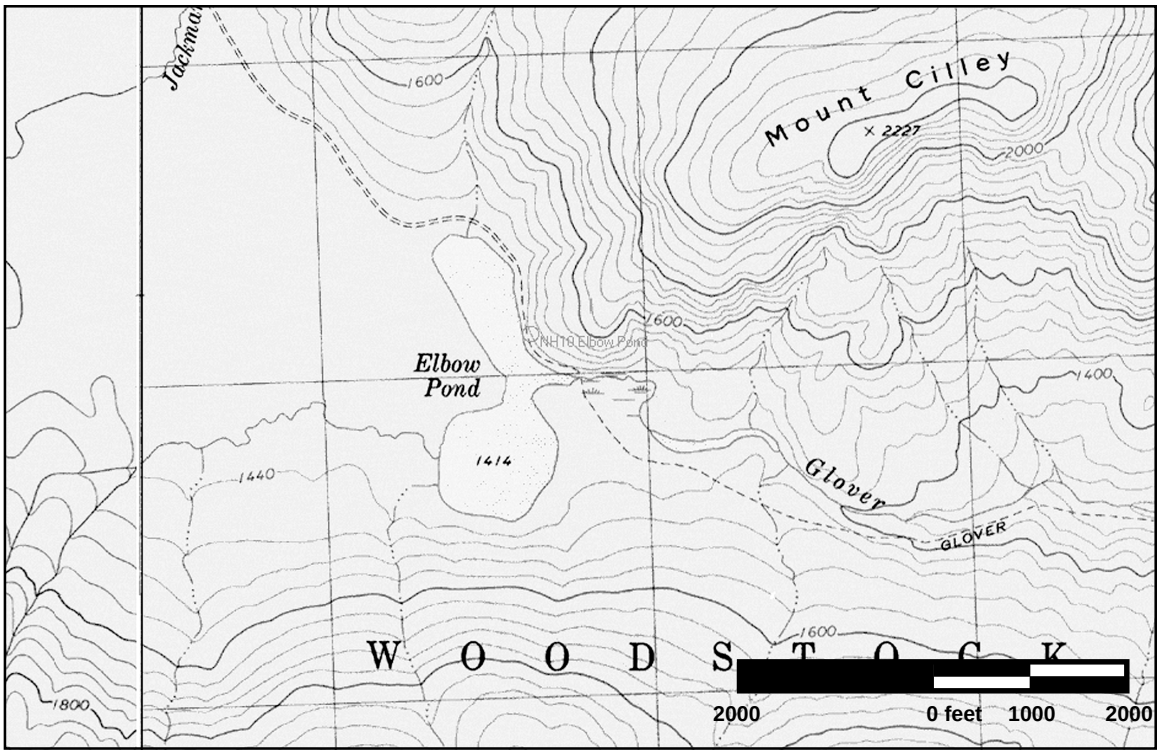
Site 9

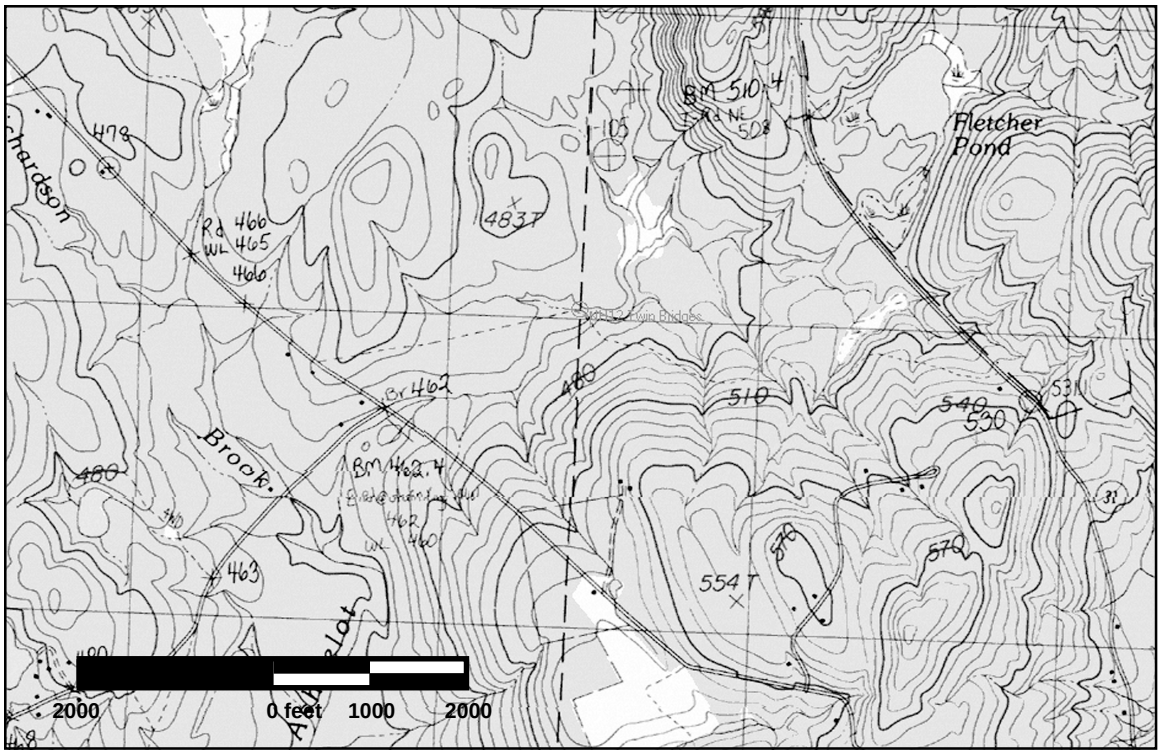
Pliny Range 7.5' Quadrangle



Site 10

Woodstock 7.5' Quadrangle





Site 12

Lovewell Mt. 7.5' Quadrangle