



NATURAL RESOURCE CONSULTING SERVICES

172 West Shore Road, Concord, New Hampshire 03301 • 603-228-4600

January 6, 2003

Mr. Tom Miner
NH Dept. of Resources and Economic Development
Division of Forests and Lands
172 Pembroke Road
Concord, NH 03301

RECEIVED

JAN - 9 2003

D.R.E.D.

RE: Nash Stream Wildlife Survey— Summary Report

Dear Mr. Minor:

Natural Resource Consulting Services (NRCS) is pleased to present this summary report for the Mammal Track, and Turtle Nest Census of the Nash Stream Forest ATV trail. This report is to present to you the data gathered during our survey of the Nash Stream area.

Mammal Track Survey

As you are aware, the final data collection concluded December 14, 2002. I have included all of the raw data collected from the field along with any side notes for individual days and any relevant photographs. We will maintain the field books on hand for future reference. All of these data are tabularized (attached). A graph that includes the totals of each species is also included. The graph shows the dates the tracks were observed as well as the number of total tracks found for the four transects.

The data can be compared between the time period when ATVs were not using the trail (June through August 7), which would be the control period and afterwards when the ATVs were using the trail (August 8 through December 13). After the trail opened to ATV use, tracks were unable to be found between August 22 through September 9. This could be attributed to the vehicular use of the trail or due to the higher temperatures of the summer decreasing the animal activity. The graph of the overall data shows that there was a higher level of activity after September 10, especially for the moose tracks.

The difficulty with this comparison is the medium in which the tracks were made isn't consistent throughout the testing period. The snow which initially fell in early November allowed the sightings of the smaller lighter animals that were not able to make tracks in the soil of the road (squirrels, ruffed grouse, snowshoe hare, turkey, deer mouse, and weasel).

The most abundant tracks found were deer tracks with 68 counted. These were predominantly found in Transects one and three. There were 52 instances of moose tracks with most of these found in Transect four. The other tracks found were much less and were scattered throughout the transects; with Bear having the third highest count of 25 tracks found. Transect 1 had the most variety of species, with 13 observed.

There are twenty-five occurrences of Bear tracks with most found during the fall. The bear population seemed fairly active from November 20th through December 6th. After the 6th

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there was no further bear activity. After speaking with a local biologist, it was found that most bears hibernate by the seventh of December. It appears that this is possibly the case with the bears in the Nash Stream area.

Six instances of Horse tracks were found. Four of these occurrences were on the same day.

Many of the smaller soft-footed animals had tracks that were found only after there was snow on the ground. The dirt trail surface was either insufficient to show tracks throughout the summer and early fall or those animals weren't using the area until the snow fell. It is much more probable that the animals were there all along but were too small or light to produce tracks visible in the dirt.

Of no particular scientific value, but nonetheless interesting...is November 7, when deer mouse and weasel tracks were spotted at the same locale. It appeared as though that was the end of the deer mouse. November 9, flying squirrel tracks were found, beginning in the middle of the road. Judging from the local topography there would have been no way for a red squirrel to get that far into the roadway without some extreme acrobatics.

Included you will find photographs of all canine and feline tracks. We did not keep a copy of these photographs.

Turtle Nesting and Dead Animal Surveys

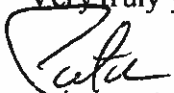
No turtles or turtle nests were found along either transect set during our sampling period. On June 18, 32 dead pollywogs were found on the east side trail and on September 18, a dead deer mouse was found along transect two of the west side. No other dead animals were found on either trail.

Bird Survey

The complete summary of our bird survey was discussed with our interim report titled "Nash Stream Wildlife Survey—Bird Survey Data" (August 14, 2002) received by your office on August 19, 2002.

I would like to meet with you, to discuss our findings and the potential of further studies next year. I'll be in touch shortly. Thanks for your confidence in NRCS.

Very truly yours,



Peter W. Spear

Certified Wildlife Biologist (The Wildlife Society)

Professional Development Certificate (The Wildlife Society)

Professional Wetland Scientist (Society of Wetland Scientist)

Certified Environmental Professional (National Assoc. of Environmental Professionals)

Certified in Habitat Evaluation Procedures (US Fish and Wildlife Service)

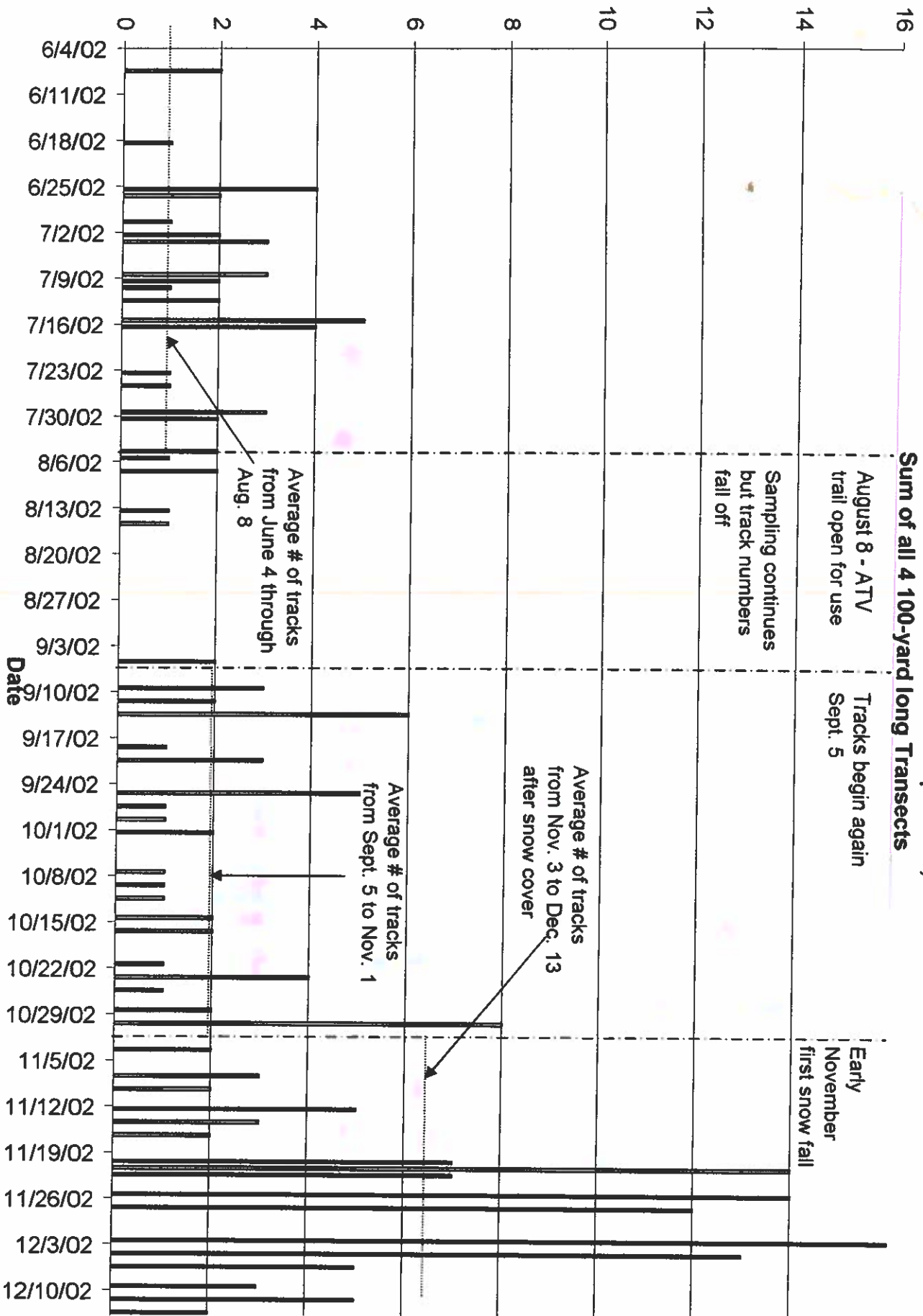
NH Certified Wetland Scientist #103

PWS/alk

Enclosures



Number of Tracks



Natural Resource Consulting Services Wildlife Survey for the Nash Stream ATV Trail

DATE	MAMMAL TRACKS on West Side, NASH STREAM																								
	4-Jun	6-Jun	7-Jun	8-Jun	10-Jun	13-Jun	14-Jun	17-Jun	18-Jun	19-Jun	20-Jun	24-Jun	25-Jun	26-Jun	27-Jun	30-Jun	1-Jul	2-Jul	3-Jul	8-Jul	9-Jul	10-Jul	12-Jul	15-Jul	
Transect 1-West																									
Moose																									
Deer																									2
Black Bear														1	1										
Dog																								1	
Fisher																									
Horse																									
Coyote																									
Red Fox																									
Flying Squirrel																									
Turkey																									
Ruffed Grouse																									
Snow Shoe Hare																									
Weasle																									
Deer mouse																									
Transect 2-West																									
Moose																									
Deer																									
Black Bear																									
Dog																									
Fisher																									
Horse																									
Coyote																									
Red Fox																									
Flying Squirrel																									
Turkey																									
Ruffed Grouse																									
Snow Shoe Hare																									
Weasle																									
Deer mouse																									
Transect 3-West																									
Moose																									
Deer																									
Black Bear																									
Dog																									
Fisher																									
Horse																									
Coyote																									
Red Fox																									
Flying Squirrel																									
Turkey																									
Ruffed Grouse																									
Snow Shoe Hare																									
Weasle																									
Deer mouse																									
Transect 4-West																									
Moose																									
Deer																									
Black Bear																									
Dog																									
Fisher																									
Horse																									
Coyote																									
Red Fox																									
Flying Squirrel																									
Turkey																									
Ruffed Grouse																									
Snow Shoe Hare																									
Weasle																									
Deer mouse																									
Sum of Tracks	0	0	2	0	0	0	0	0	0	1	0	0	4	2	0	1	0	2	3	3	2	1	2	5	

32 Dead polywogs

Natural Resource Consulting Services Wildlife Survey for the Nash Stream ATV Trail

MAMMAL TRACKS on West Side, NASH STREAM

DATE	16-Jul	17-Jul	18-Jul	22-Jul	23-Jul	24-Jul	25-Jul	29-Jul	30-Jul	1-Aug	4-Aug	5-Aug	7-Aug	10-Aug	11-Aug	13-Aug	15-Aug	20-Aug	22-Aug	24-Aug	26-Aug	28-Aug	29-Aug	
Transsect 1-West																								
Moose																								
Deer	1																							
Black Bear																								
Dog																								
Fisher	1																							
Horse																								
Coyote																								
Red Fox																								
Transsect 2-West																								
Deer mouse																								
Moose																								
Deer	1																							
Black Bear																								
Dog																								
Fisher																								
Horse																								
Coyote																								
Red Fox																								
Red Squirrel																								
Flying Squirrel																								
Turkey																								
Ruffed Grouse																								
Snow Shoe Hare																								
Weasle																								
Deer mouse																								
Transsect 4-West																								
Moose																								
Deer	1																							
Black Bear																								
Dog																								
Fisher																								
Horse																								
Coyote																								
Red Fox																								
Red Squirrel																								
Flying Squirrel																								
Turkey																								
Ruffed Grouse																								
Snow Shoe Hare																								
Weasle																								
Deer mouse																								
Sum of Tracks	4	0	0	0	0	1	0	1	1	0	1	3	2	0	2	1	2	0	0	0	0	0	0	0

Natural Resource Consulting Services Wildlife Survey for the Nash Stream ATV Trail

MAMMAL TRACKS on West Side, NASH STREAM

DATE	25-Oct	26-Oct	30-Oct	1-Nov	3-Nov	7-Nov	9-Nov	12-Nov	14-Nov	16-Nov	20-Nov	21-Nov	22-Nov	25-Nov	27-Nov	28-Nov	2-Dec	4-Dec	6-Dec	9-Dec	11-Dec	13-Dec	Totals
Transect 1-West	1																						
Moose			1																				
Deer																							10
Black Bear																							22
Dog																							2
Fisher																							2
Horse																							2
Coyote																							3
Red Fox																							2
Red Squirrel																							2
Flying Squirrel																							4
Turkey																							1
Ruffed Grouse																							1
Snow Shoe Hare																							5
Weasle																							5
Deer mouse																							0
Transect 2-West																							0
Moose																							0
Deer																							9
Black Bear																							10
Dog																							4
Fisher																							0
Horse																							1
Coyote																							1
Red Fox																							1
Red Squirrel																							0
Flying Squirrel																							2
Turkey																							0
Ruffed Grouse																							4
Snow Shoe Hare																							0
Weasle																							0
Deer mouse																							0
Transect 3-West																							3
Moose																							1
Deer																							7
Black Bear																							24
Dog																							9
Fisher																							0
Horse																							1
Coyote																							1
Red Fox																							1
Red Squirrel																							1
Flying Squirrel																							0
Turkey																							0
Ruffed Grouse																							0
Snow Shoe Hare																							0
Weasle																							0
Deer mouse																							3
Transect 4-West																							5
Moose																							1
Deer																							26
Black Bear																							12
Dog																							10
Fisher																							0
Horse																							1
Coyote																							1
Red Fox																							1
Red Squirrel																							0
Flying Squirrel																							3
Turkey																							0
Ruffed Grouse																							1
Snow Shoe Hare																							2
Weasle																							0
Deer mouse																							0
Sum of Tracks	1	2	8	0	2	3	2	5	3	2	7	14	7	14	12	0	16	13	5	3	5	1	210

snowing, no tracks too much snow and packed