Appendix E

Ecology Studies

E-1

Wildlife Species Assessment

WILDLIFE SPECIES ASSESSMENT

Kennecott Minerals Company
Eagle Project
Marquette County, Michigan

Prepared for:

Golder Associates, Inc.

Prepared by:



September, 2005

WCR-03-187

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SUMMARY

Wetland and Coastal Resources, Inc. (WCR) was contracted by Golder Associates, Inc. (Golder) to perform a baseline wildlife species assessment within a 1600 acre project study area located northwest of Marquette, MI, paying special attention to lands that may be used for future mining activities. Habitat types on site range from clear-cut with little plant regeneration to mature forest. Wetland and Coastal Resources, Inc. conducted field assessments of individual small mammals, birds and frogs and toads, along with their preferred habitats, during spring, summer, and fall of 2004.

The wildlife species assessment resulted in identification of various bird, mammal, and frog and toad species on the project site. A total of fifty four different bird species were identified, including one confirmed sighting of a bald eagle, a State-threatened species. A total of three small mammal species were captured, including the eastern chipmunk (*Tamias striatus*), deer mouse (*Peromyscus maniculatus*) and southern red-backed vole (*Clethrionomys gapperi*). Other mammal species identified on the project site included the white-tailed deer (*Odocoileus virginianus*), black bear (*Ursus americanus*), red squirrel (*Tamiasciurus hudsonicus*), moose (*Alces alces*), eastern coyote (*Canis latrans*) and American beaver (*Castor canadensis*). These latter species were identified based on scat, droppings, tracks, sightings or other recognizable sign. Four frog species were heard on site, including northern spring peeper (*Pseudacris crucifer*), green frog (*Rana clamitans*), mink frog (*R. septentrionalis*) and the western chorus frog (*Pseudacris triseriata triseriata*).

The bird species identified on the site are common residents and migrants through Michigan's Upper Peninsula. The diversity of bird species observed on site is quite large for the area assessed. Diversity of habitat types present within the study area likely contributes to the high numbers and diversity of bird species. It also appears that, while bird species were similar between stations, fewer total numbers of individuals were observed within the clear-cut areas.

The small mammal species found on-site are common residents of Michigan's Upper Peninsula. Survey results for small mammals suggest the clear-cut areas of the site have a lower degree of use by small mammals than forested areas.

1.0 INTRODUCTION

In July of 2002, Kennecott Minerals Company (Kennecott) discovered a high-grade nickel and mineral deposit approximately 28 miles (45 kilometers) northwest of Marquette in Michigan's Upper Peninsula. The location is known as the Eagle Project. Since this discovery, economic and environmental evaluations were initiated to determine the potential to develop an operating mine.

The purpose of this evaluation is to collect baseline wildlife environmental data and to document existing wildlife conditions. Furthermore, the purpose of collecting these data is to provide sufficient information to support future mine facility alternative analysis and design, environmental permitting, and potential project impact analysis.

Golder Associates Inc. (Golder) was chosen as the prime consultant to manage the environmental baseline study programs. On February 6, 2004, Golder authorized Wetland and Coastal Resources, Inc. (WCR) to perform baseline environmental studies including assessments of wetlands, wildlife, aquatic organisms and habitats, and threatened and endangered species. This report presents the findings of WCR's assessments of birds, mammals and frogs and toads on the project site. Aquatic, wetlands and threatened and endangered species findings are presented in separate reports.

The information and analyses associated with this report represents the opinions and professional judgment of WCR. The results presented in this report are based on seasonal wildlife surveys designed to characterize representative field conditions.

1.1 Project Area

Kennecott Minerals Company currently controls more than 1600 acres of mineral and surface rights in the project area. The project area is located in portions of Sections 2, 3, 10, 11, 12, 14, 15, T50N, R29W of Michigamme Township, Marquette County, within the Yellow Dog Plains at the headwaters of the Salmon Trout River. **Figure 1.1, Appendix A**, shows the boundaries of the project and wildlife study areas and **Figure 1.2** shows approximate locations of upland and wetland habitats on site.

1.2 Project Purpose

The purpose of conducting wildlife assessments is to (1) identify species that inhabit, use, or otherwise occupy lands within the project area, and (2) provide information on wildlife use and habitats to assist in the development of a site layout plan that may be used for a Environmental Impact Assessment. This report is being presented to Golder for use in the compilation of a comprehensive environmental baseline study, which will assist in developing and assessing project alternatives.

2.0 METHODS

2.1 Literature Review and Field Preparation

Prior to field investigations, WCR sought and obtained available data and information to provide initial direction and to focus the wildlife assessments on specific habitat types. Sources included the United States Department of Agriculture (USDA), Michigan Department of Natural Resources (MDNR), Michigan Department of Environmental Quality (MDEQ), Whitefish Point Bird Observatory, Marquette County Plat Book, United States Fish and Wildlife Service (USFWS), and National Wetland Inventory (NWI). In addition, a literature search was undertaken and copies of existing environmental studies and inventories conducted within or near the project area were obtained for background data. A request was also made to the Michigan Natural Features Inventory (MNFI) for records and information on threatened, endangered, and species of concern identified within the project area or surrounding land areas.

Aerial photography (MDNR (1998)) and NWI maps of the project area were used to identify potential wetland, upland, and woodland habitats. Prior to conducting field assessments and final selection of transect locations, maps were produced from the aforementioned data to aid field biologists in locating possible transect locations and sampling stations on site.

2.2 Field Assessment Methodologies

During the initial site survey, seven permanent wildlife sampling transects were established and surveyed with a global positioning system (GPS). The transects were labeled Transects 1-7 **(Figure 2.1)**. Transects 1-4 are 3,900 ft (1190 meters (m)) in length and Transects 5-7 are 5,250 ft (1600 m) in length. The transects were established to conduct wildlife assessments within a continuum of habitat types and to include assessment of the habitats types present throughout the site; including those areas where

mining operations may be established. Transects were also established to sample known locations for comparison with potential future studies. The data collected will be used to identify potentially sensitive areas on the project site and as baseline information.

The seven transects are located within various habitat types found throughout the project area. Along each transect, three (3) sampling stations were established, creating a total of 21 sampling stations **(Figure 2.2)**. The locations of the stations were chosen to include all habitat types along the transects, and avoid overlap of bird sightings between stations. Each station was uniquely labeled with identification of the transect number and bird and small mammal sample plots. The first sampling station along Transect 1 was labeled T1B1M1. The T1 represents Transect 1, B1 is Station 1 for bird surveys and M1 is Station 1 for small mammal data collection. The habitat types associated with each station were documented and photographed and are presented in **Appendix B1**.

The small mammal and bird sampling stations covered multiple habitat types including clear-cut areas with multiple stages of succession, mature upland coniferous forest, mature forest with coniferous and deciduous overstory, and spruce bog. Four stages of clear-cut habitats were noted which include: 1) no overstory or shrub layer, 2) young red pine with sparse herbaceous layer, 3) young jack pine with sparse understory, and 4) mix of young deciduous and coniferous forest with sparse herbaceous layer. The mature forest and spruce bog habitats consist of old cut with mixture of deciduous and coniferous, open-stand coniferous with sparse understory, mature coniferous woods with scattered deciduous trees and sparse understory, and black spruce bog. These habitat types encompass the majority of ecotypes found on the parcel, excluding some of the wetland complexes near the Salmon Trout River. Brief descriptions of the sampling station plots and dominant plant species are included in **Appendix B1**.

In addition to the 21 sampling stations identified above, three frog and toad survey stations were also established. These stations are separate from the 21 stations and seven transects, and were chosen based on the presence of specific habitat types preferred by

species that may occur on site. The stations are labeled as Frog 1, Frog 2 and Frog 3 **(Figure 2.2)**.

Additional wildlife data was collected throughout the site by recording visual signs of wildlife including direct observation, tracks, scat, or other evidence. These data were collected strictly through incidental observation and the general location of the observation was recorded.

A minimum of two WCR biologists were present during all sampling periods in May, June and October. Bird assessments were conducted during all three periods to cover spring and fall migration and the summer nesting. Small mammals were assessed during the initial site investigations in May. Frogs and toads were sampled during spring breeding periods in May and June.

Field assessments were scheduled so that the majority of bird and frog species with potential to use the property were assessed at least once during their optimal time periods. Survey methods for birds, small mammals and frogs and toads are detailed below in their respective sections.

2.2.1 Birds

Field sampling for birds was conducted using the Variable Circular Plot (VCP) assessment method. This bird census consists of a 10-minute time period where all birds seen or heard within the survey plot (which consists of a center point and radius) are recorded by species, time and approximate horizontal distance from the observer to the bird's location.

The purpose of sampling birds during the months of May, June and October was to identify and document migrant bird species utilizing the site during the spring and fall migration and early summer nesting. Sampling during these months also allowed for identification of resident bird populations. The initial VCP assessment criteria used in

May consisted of a 10-minute time period with a survey plot radius of 100 ft (30 m). Few birds were located within the 100 ft radius, though more birds were seen or heard at farther distances. The 100 ft radius was increased during the June and October sampling periods to include any distance that birds could be heard or seen from the sampling station. Altering the sampling protocol likely biased the bird count data between cover types, as birds could be heard or seen at a farther distance in the open areas compared to the forested sites. However, the purpose of the assessments was to provide background data on the bird species using the site and this protocol change allowed for more accurate information on bird usage. The sampling period of 10 minutes remained constant between sampling periods.

In May, every station was sampled over a two-day period, beginning the first day at T1M3B3 and working in a serpentine pattern down to station T4M1B1. On Day 2, the pattern was repeated at Stations T7M1B1 to T5M3B3. The bird data was collected only once at each station to verify bird usage and obtain preliminary species data. In order to increase reliability of bird counts, the bird surveys were conducted twice per station during the June and October sampling periods. The surveys were completed on successive days, with sampling commencing at daylight at Station 1 and continuing through Station 21. On the second day the sampling began at Station 21 and continued in reverse order to Station 1. This reversal in sampling direction was conducted to reduce sampling bias stemming from changes in bird activity from early to late morning.

2.2.2 Small Mammals

The small mammals were sampled in May at the same 21 sampling stations as the bird surveys. One Sherman Live trap, two small snap traps and one large snap trap were set at each sampling point, within a 3 ft (1 m) radius from station center. The traps were checked daily for three consecutive days. The bait consisted of wheat thins, oatmeal and peanut butter set on the live trap and small and large snap traps, respectively. Traps set in the morning were checked the following morning and traps set in the evening were checked the following evening, both at approximately 24-hour intervals.

2.2.3 Frogs and Toads

Three frog and toad survey stations were established near the Salmon Trout River. Sampling consisted of quietly approaching the site, waiting three minutes and counting the number of breeding songs of the males heard over a 10-minute period. The number of singing males was assessed using a call index of 1-3. A call index of 1 indicated that the individuals could be counted based on variability of pitch and location (1-5 frogs); an index of 2 indicates that individuals could be distinguished but some calls overlap, resulting in an estimate of the number of individuals; and a call index of 3 represents full chorus, where the individual calls could not be counted and the calls are constant, continuous and overlapping.

The sampling protocol followed the techniques described in the MDNR "*Michigan Frog and Toad Survey Instructions*". As part of the protocol, sampling is to be conducted after dark. However, due to health and safety concerns, all sampling was completed prior to sunset during times when frogs and toads were active or weather conditions were favorable for increased activity. The frog and toad surveys were conducted twice per station during the breeding season in May and June 2004.

Additional amphibian sampling was proposed using fencing and pit traps around vernal ponds, where adjacent upland and wetland habitat is present for salamanders. Although additional amphibian species may occur on the project site, no vernal ponds with habitats conducive to effective sampling were located within the study area. Therefore, due to this lack of habitat suitable for sampling, pit trapping for amphibians was not conducted.

2.2.4 Large Mammals

Large mammals were identified by sight, sound, tracks, scat or other evidence, such as nesting cavities, rubs or feeding stations. Observations were recorded each time large mammal sign was encountered along the seven transects, or throughout the site during wetland delineations and reviews for threatened and endangered species.

2.2.5 Other Wildlife and Habitat

All sightings and signs of wildlife were recorded at any time while on the project site. Observations were recorded during May, June, August and October of 2004, during bird surveys, small mammal surveys, frog and toad surveys, wetland delineations, threatened and endangered species assessments, and aquatic assessments. Habitats were also assessed and documented during these assessments.

3.0 RESULTS

3.1 Wildlife Assessments

3.1.1 Birds

A total of 950 birds representing 53 species were identified using the VCP assessment during the three sampling periods **(Appendix B2)**. The birds identified are typical of those found in cut-over areas and in coniferous and deciduous forests. Dark-eyed juncos (*Junco hyemalis*), yellow-rumped warblers (*Dendroica coronata*) and white-throated sparrows (*Zonotrichia albicollis*) were some of the most frequently observed species. No threatened, endangered or species of concern were identified during the VCP data collection.

3.1.2 Small Mammals

A total of three small mammal species were captured during the May 2004 sampling period, including the deer mouse (*Peromyscus maniculatus*), eastern chipmunk (*Tamias striatus*) and the southern red-backed vole (*Clethrionmys gapperi*) **(Appendix B3)**. The number of individuals captured was greatest in the forested habitat. The number of small mammals captured during the short spring sampling period suggests that a good population of small mammals is present in the forested areas of the parcel. Only one individual was trapped within the cut-over area during the sampling period. No threatened, endangered or species of concern were identified during small mammal sampling. Sampling data are provided in **Appendix B3**.

3.1.3 Frogs and Toads

Four species of frog were noted during the breeding surveys conducted in May and June 2004. No toads were identified during the sampling. However, Eastern American toads (*Bufo americanus*) were heard calling in May of 2004 near the eastern portion of the site,

south of the study area. Northern spring peepers (*Pseudacris crucifer*) were most common, with full chorus. The green frog (*Rana clamitans*), western chorus frog (*Pseudacris triseriata triseriata*) and the mink frog (*R. septentrionalis*) were also noted on the site. The frog survey data is found in **Appendix B4**. No threatened, endangered or species of concern were identified during frog and toad sampling, although according to the MDNR, the western chorus frog is rare in the Upper Peninsula.

3.1.4 Large Mammals

Droppings and tracks of both white-tailed deer (*Odocoileus virginianus*) and moose (*Alces alces*) were observed on the parcel, primarily south of Triple A Road and east of the Salmon Trout River. American beaver (*Castor canadensis*) activity was noted on the Salmon Trout River south of Triple A Road, and eastern coyote (*Canis latrans*) scat was identified on the site. No threatened or endangered mammal species or species of concern were identified during large mammal sampling.

3.1.5 Other Wildlife and Habitat

Wildlife species noted at the time transects were established are listed in **Appendix B5**. Species noted in addition to surveys and transect reviews include black bear (*Ursus americanus*), northern saw-whet owl (*Aegolius acadicus*), sandhill crane (*Grus canadensis*) and spruce grouse (*Falcipennis Canadensis)*.

A diversity of wetland and upland habitats are present within the study area, which provide habitat for a wide variety of mammals, birds, reptiles, and amphibians. Refer to WCR's wetlands and threatened and endangered species reports for detailed descriptions of the habitats on site.

4.0 DISCUSSION

4.1 Wildlife Communities

4.1.1 Birds

The project area is used by migrating bird species in the spring and fall and by resident species for nesting, resting and feeding. No rare or unique small bird species were noted during surveys, though results show bird diversity to be high for the size of the study area. The diverse population reflects the variety of habitat types found on the site, which ranges from clear-cut areas to mature forest and bogs. Clear-cut areas were found to have a similar diversity of bird species as the forested areas. However, results indicate that lower overall numbers of birds utilize the clear-cut areas.

One mature bald eagle, a State-threatened species, was observed soaring over the north-central portion of the study area, near a rock outcropping north of Triple A Road. One juvenile bald or golden eagle was seen perched near the Salmon Trout River at Triple A Road. Positive identification of the perched bird was not possible due to the large distance from the observer and the physical similarities between species. No nesting sites for the bald or golden eagle were observed on the subject property.

The common loon, a threatened species, is also listed as potentially inhabiting the project area. However, no common loons were sighted or heard during the investigation periods. It is the opinion of WCR that loons are not likely to use the property, since the waterbodies within the project area appear to be of insufficient size for use by loons.

4.1.2 Small Mammals

The number of small mammals collected in forested areas was higher than in clear-cut areas. This is a result of habitat preference and requirements that are present in the forested areas and lacking in cut areas. The number of small mammals captured during

the spring sampling period suggests that a large population of small mammals exists in the forested areas of the parcel. However, due to the low number of individuals captured, no statistical comparison of capture between sample sites was performed.

Although only four species of small mammals were collected, additional species are likely present on site based on the presence of available habitat. Such species might include southern bog lemmings (*Synaptomys cooperi*), masked shrews (*Sorex cinereus*) and woodland jumping mice (*Napaeozapus insignis*), among others.

4.1.3 Frogs and Toads

Survey results suggest the beaver ponds of the Salmon Trout River contain healthy populations of frogs, as evidenced by the survey results. Northern spring peepers were the most common frog species observed. Additional frog species and density of individuals may be greater than reported, however; access to the site is restricted during the recommended evening hours. As well, the selected May and June sampling dates may not have corresponded with peak breeding times of all species, though it likely covered the majority of species.

4.1.4 Large Mammals

The site contains habitat suitable for white-tailed deer, eastern coyote, fox, black bear, American beaver and moose. Based on observed tracks and scat, the area exhibiting the highest large mammal use is a clear-cut area with aspen regeneration, located south of Triple A Road and east of the Salmon Trout River, and portions of the black spruce bog immediately west of the clear-cut area. The young aspen are providing excellent feeding habitat for large mammals and the bog provides dense cover. Clear-cut areas lacking deciduous tree regeneration have few large mammal tracks or droppings. Eastern coyote scat was identified on site and it is likely that red fox (*Vulpes vulpes*) and gray fox (*Urocyon cinereoargenteus*) also traverse the property. American beaver cuttings and dams were observed near the Salmon Trout River south of Triple A Road.

4.1.5 Other Wildlife and Habitat

A wide variety of habitat is present within the study area and each habitat type is described in more detail in WCR's wetlands and threatened and endangered species reports. However, two significant areas are briefly discussed below.

Large wetland areas are present within the western half of the study area, along the Salmon Trout River. The plant composition and physical features of these wetlands provide valuable wildlife habitat and stream cover.

Forested bog habitats dominated by black spruce are present within the southeastern and southwestern portions of the study area. These wetlands are part of larger systems that continue south to the Yellow Dog River and provide significant wildlife habitat and water quality functions that protect and maintain the quality of the river.

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6.0 LIST OF AGENCIES CONTACTED

- Michigan Department of Environmental Quality
- Michigan Department of Natural Resources
- Michigan Natural Features Inventory
- United States Department of the Interior, U.S. Fish and Wildlife Service

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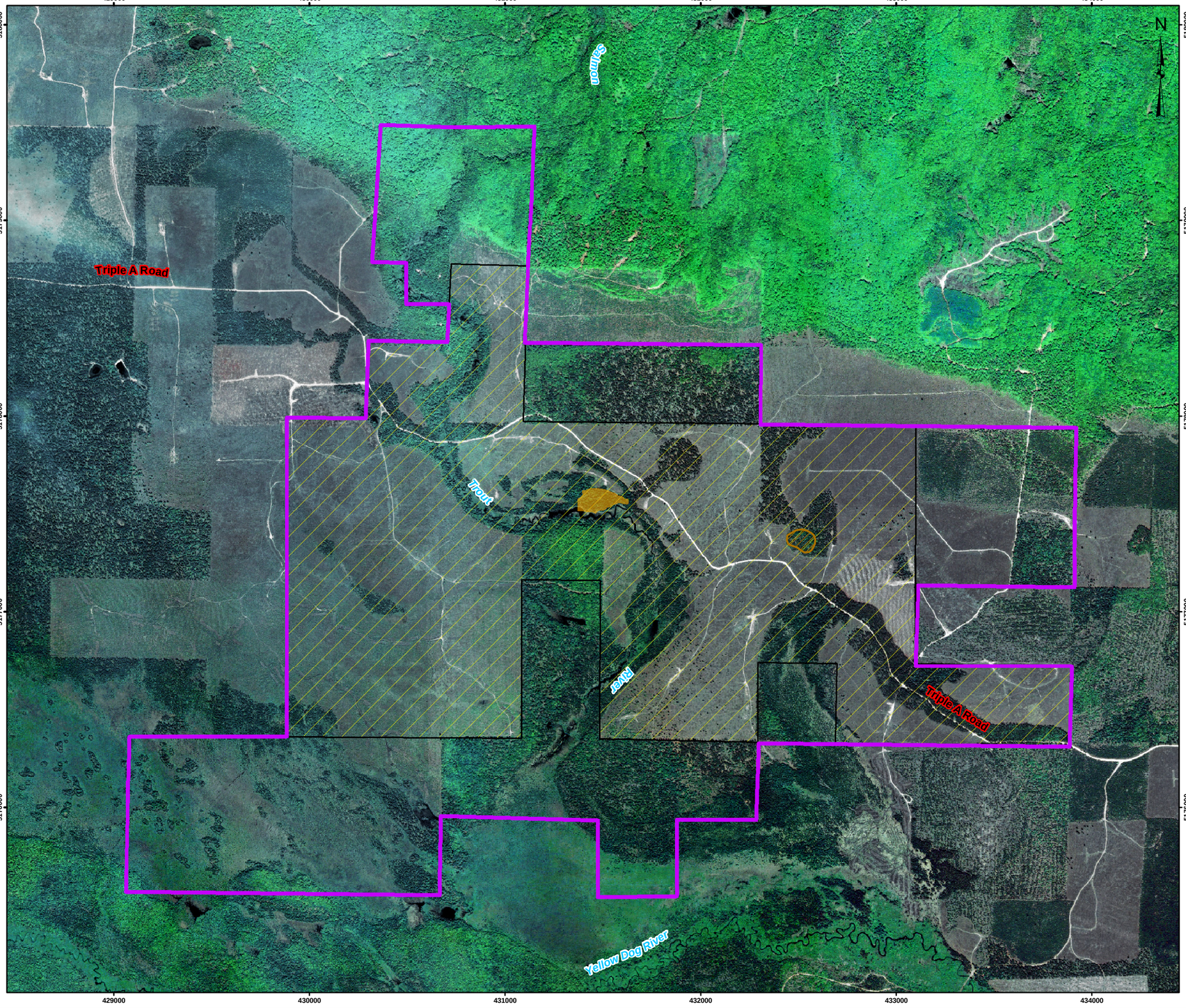
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APPENDIX A

Figure 1.1. Project Area, Marquette County, MI
Figure 1.2. Location of Wetland and Upland Complexes
Figure 2.1. Transect Locations
Figure 2.2. Sampling Stations on Transects 1-7 with photographs



LEGEND

- ORE BODY
- OUTCROP
- KMC/MDNR PROPERTY
- STUDY AREA

REFERENCE

Quickbird image provided by Digital Globe.
Datum: NAD 83 Projection: Transverse Mercator Coordinate System: UTM Zone 16

2,000 0 2,000
SCALE: 1: 20,000 FEET

PROJECT
Kennecott Minerals

EAGLE PROJECT
BASELINE ENVIRONMENTAL STUDY
KENNECOTT MINERALS COMPANY

TITLE
Wetland and Coastal Resources

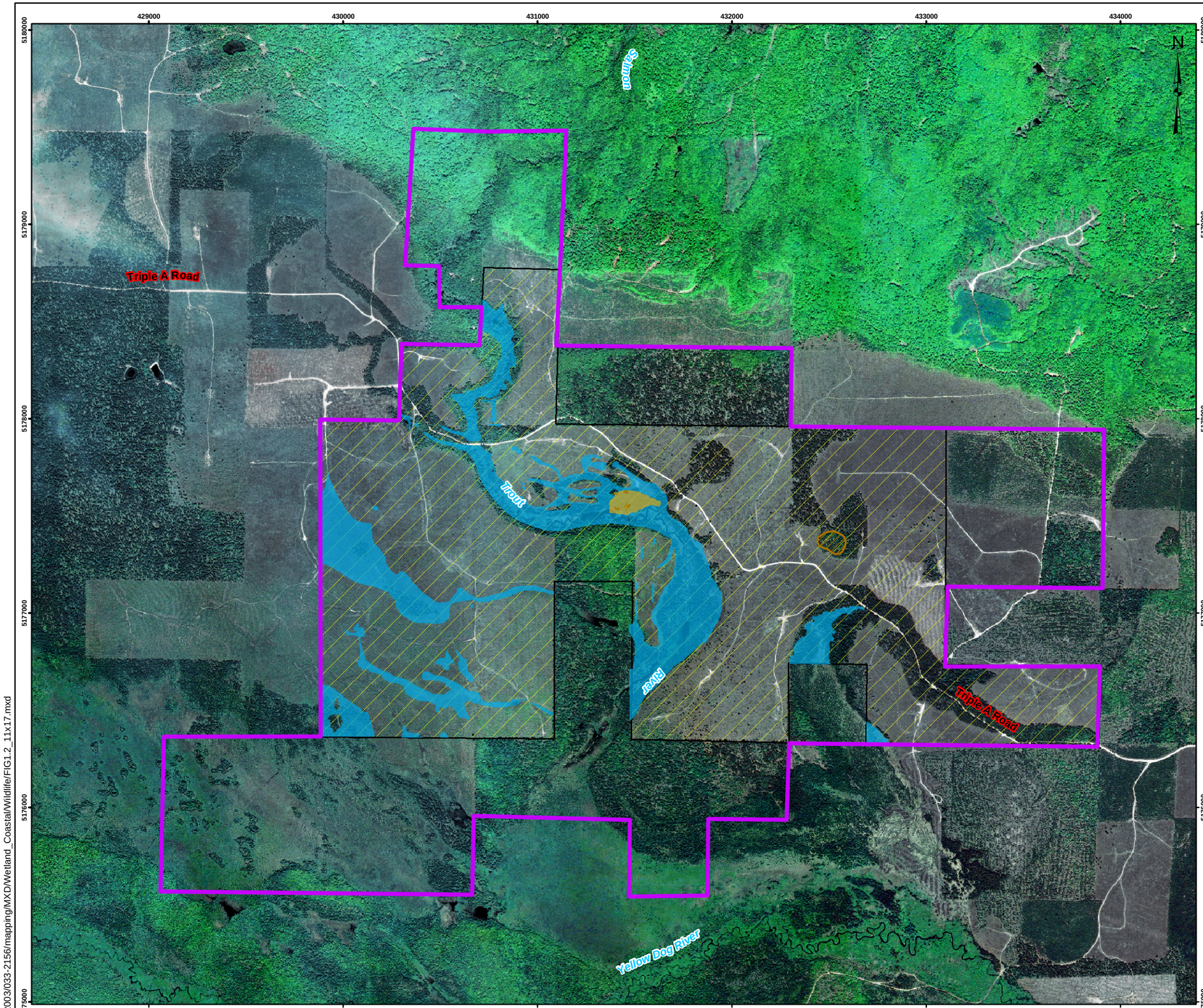
PROJECT AREA, MARQUETTE COUNTY, MI

Golder Associates

PROJECT No. 033-2156C			SCALE AS SHOWN	REV. 0
DESIGN	SM	8 Apr. 2005		
GIS	TN	8 Apr. 2005		
CHECK	JM	8 Apr. 2005		
REVIEW				

FIGURE 1.1

I:/2003/033-2156/mapping/MXD/Wetland_Coastal/Wildlife/FIG1.1_11x17.mxd



LEGEND

- ORE BODY
- OUTCROP
- KMC/MDNR PROPERTY
- STUDY AREA
- APPROXIMATE WETLAND BOUNDARY

REFERENCE

Quickbird image provided by Digital Globe. Approximate wetland boundary data provided by Wetland and Coastal Resources, Inc.
Datum: NAD 83 Projection: Transverse Mercator Coordinate System: UTM Zone 16

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PROJECT
Kennecott Minerals

EAGLE PROJECT
BASELINE ENVIRONMENTAL STUDY
KENNECOTT MINERALS COMPANY

TITLE
Wetland and Coastal Resources

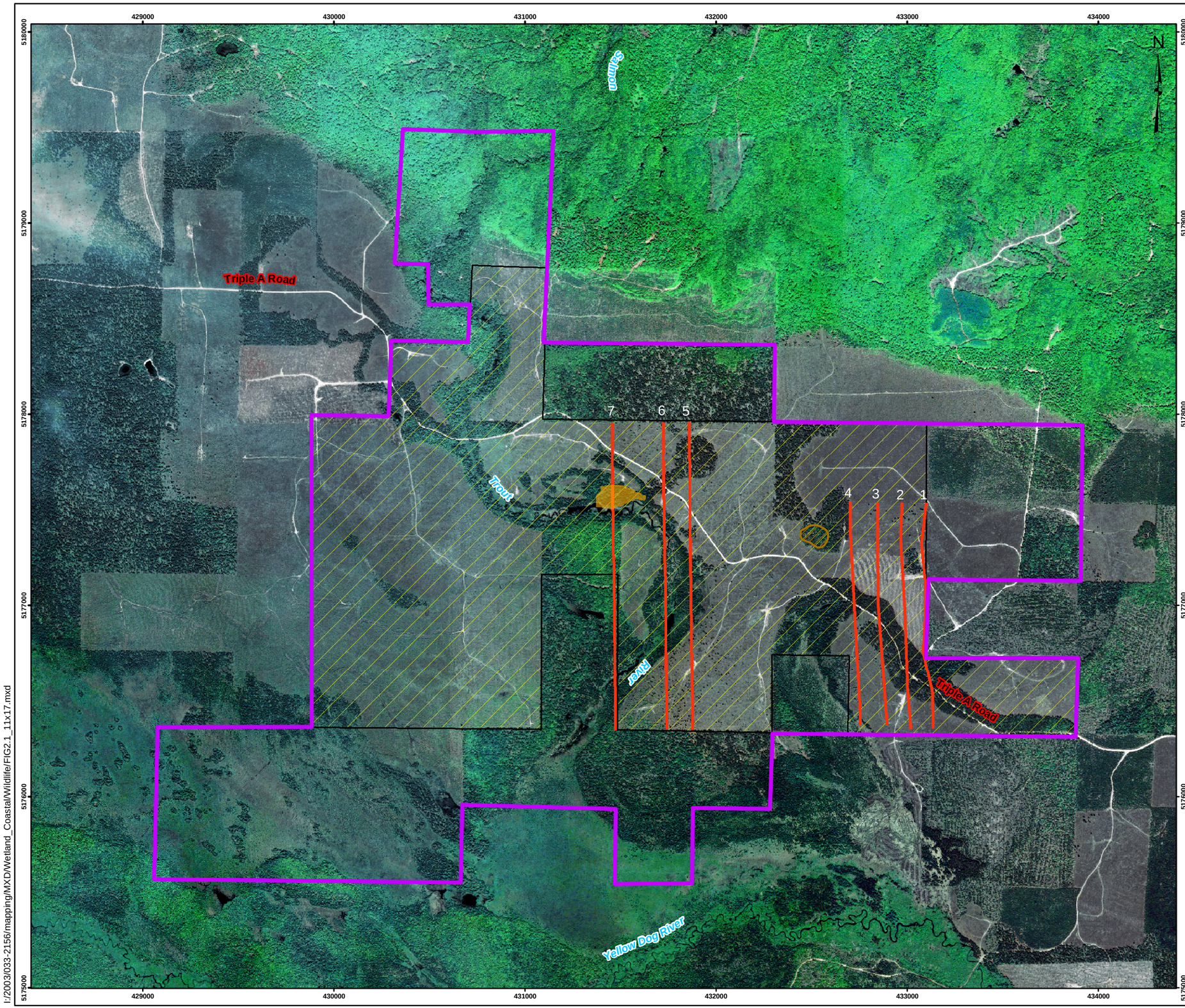
LOCATION OF WETLAND AND UPLAND COMPLEXES

Golder Associates

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GIS	TN	8 Apr. 2005		
CHECK	JM	8 Apr. 2005		
REVIEW				

FIGURE 1.2

I:/2003/033-2156/mapping/MXD/Wetland_Coastal/Wildlife/FIG1.2_11x17.mxd



LEGEND

- ORE BODY
- OUTCROP
- KMC/MDNR PROPERTY
- STUDY AREA
- TRANSECT

REFERENCE

Quickbird image provided by Digital Globe. Transect data provided by Wetland and Coastal Resources, Inc.
Datum: NAD 83 Projection: Transverse Mercator Coordinate System: UTM Zone 16

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SCALE: 1: 20,000 FEET

PROJECT
Kennecott Minerals

EAGLE PROJECT
BASELINE ENVIRONMENTAL STUDY
KENNECOTT MINERALS COMPANY

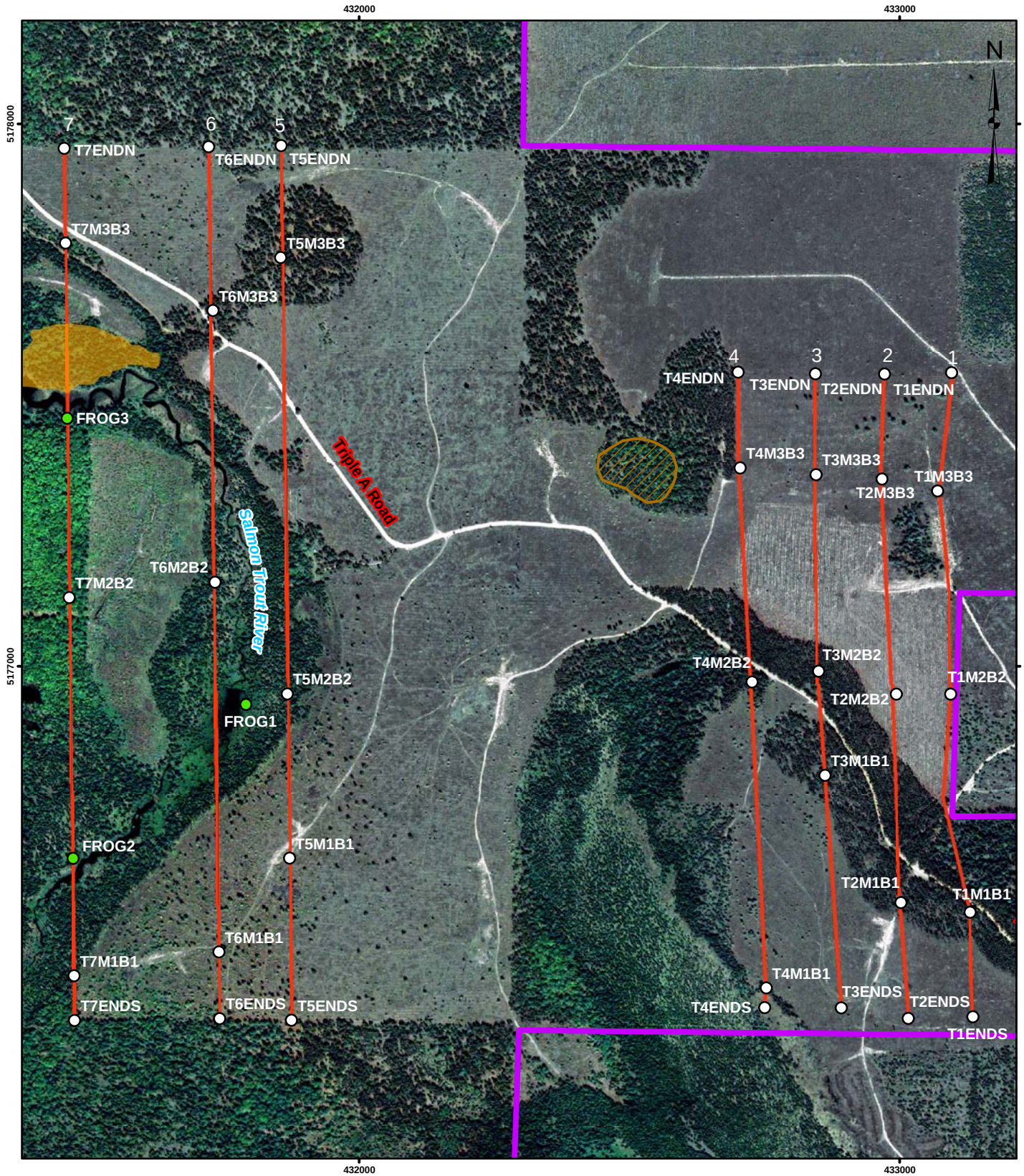
TITLE
Wetland and Coastal Resources

TRANSECT LOCATIONS

Golder Associates

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GIS	TN	8 Apr. 2005		
CHECK	JM	8 Apr. 2005		
REVIEW				

I:/2003/033-2156/mapping/MXD/Wetland_Coastal/Wildlife/FIG2.1_11x17.mxd



LEGEND

- ORE BODY
- OUTCROP
- KMC/MDNR PROPERTY
- WILDLIFE SAMPLING STATION
- FROG SAMPLING STATION
- TRANSECT

REFERENCE

Quickbird image provided by Digital Globe. Transects, wildlife and frog sampling stations provided by Wetland and Coastal Resources, Inc.
Datum: NAD 83 Projection: Transverse Mercator Coordinate System: UTM Zone 16

PROJECT: Kennecott Minerals

EAGLE PROJECT
BASELINE ENVIRONMENTAL STUDY
KENNECOTT MINERALS COMPANY

TITLE

SAMPLING STATIONS ON TRANSECTS 1 - 7 WITH PHOTOGRAPHS

Golder Associates

PROJECT No. 033-2156c			SCALE AS SHOWN	REV. 0
DESIGN	SM	8 Apr. 2005		
GIS	TN	8 Apr. 2005		
CHECK	JM	8 Apr. 2005		
REVIEW				

FIGURE 2.2

I:\2003\033-2156\mapping\MXD\Wetland_Coastal\Wildlife\FIG2.2_85x11.mxd

APPENDIX B1

Habitat data
Station Photographs

GENERAL HABITAT DESCRIPTIONS AT MAMMAL AND VARIABLE CIRCULAR PLOT SAMPLE SITES (May 2004)

TRAP SITES		HABITAT DESCRIPTION AT PLOTS			PHOTOGRAPH
Transect	Site	General Description	Dominant Plant Species		
			Common Name	Scientific Name	
1	1	Open stand, coniferous forest, mature,sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T1M1B1 NORTH T1M1B1 SOUTH
			Red Pine	*Pinus resinosa*	
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Wintergreen	*Gautheria procumbens*	
	2	Cut area, no overstory or shrub layer. Sparse herbaceous layer, sandy soils.	Brachen Fern	*Pteridium aquilinum*	T1M2B2 NORTH T1M2B2 SOUTH
			Wintergreen	*Gautheria procumbens*	
	3	Open, 10 year jack pine growth, sparse herbaceous layer, sandy soils	Jack Pine	*Pinus banksiana*	T1M3B3 NORTH T1M3B3 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Wintergreen	*Gautheria procumbens*	
2	1	Open stand, coniferous forest, mature,sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T2M1B1 NORTH T2M1B1 SOUTH
			Norway spruce	*Picea abies*	
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Wintergreen	*Gautheria procumbens*	
	2	Cut area, no overstory or shrub layer. Sparse herbaceous layer, sandy soils.	Brachen Fern	*Pteridium aquilinum*	T2M2B2 NORTH T2M2B2 SOUTH
	3	Open, 3 year red pine growth, seeded jack pine, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T2M3B3 NORTH T2M3B3 SOUTH
			Red Pine	*Pinus resinosa*	
			Brachen Fern	*Pteridium aquilinum*	

GENERAL HABITAT DESCRIPTIONS AT MAMMAL AND VARIABLE CIRCULAR PLOT SAMPLE SITES (May 2004)

TRAP SITES		HABITAT DESCRIPTION AT PLOTS			PHOTOGRAPH
Transect	Site	General Description	Dominant Plant Species		
			Common Name	Scientific Name	
3	1	Open stand, coniferous forest, medium stalking, sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T3M1B1 NORTH T3M1B1 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Norway spruce	*Picea abies*	
			Wintergreen	*Gautheria procumbens*	
	2	Open stand, coniferous forest, medium stalking, sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T3M2B2 NORTH T3M2B2 SOUTH
			Brachen Fern	*Pteridium aquilinum*	
			Norway spruce	*Picea abies*	
			Wintergreen	*Gautheria procumbens*	
	3	Cut, open, young jack pine growth, sparse herbaceous layer, sandy soils	Jack Pine	*Pinus banksiana*	T3M3B3 NORTH T3M3B3 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Wintergreen	*Gautheria procumbens*	
4	1	Coniferous, mature, relatively dense shrub and herbaceous layer, adjacent to flooded sedge meadow (south) and cut area (north). Organic soils over sand.	Black Spruce	*Picea mariana*	T4M1B1 NORTH T4M1B1 SOUTH
			Jack Pine	*Pinus banksiana*	
			Leather leaf	*Chamaedaphne calyculata*	
			Sphagnum moss	*Sphagnum sp.*	
			Sedge	*Carex sp.*	
	2	Open stand, coniferous forest, mature, sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T4M2B2 NORTH T4M2B2 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Norway spruce	*Picea abies*	
			Wintergreen	*Gautheria procumbens*	

GENERAL HABITAT DESCRIPTIONS AT MAMMAL AND VARIABLE CIRCULAR PLOT SAMPLE SITES (May 2004)

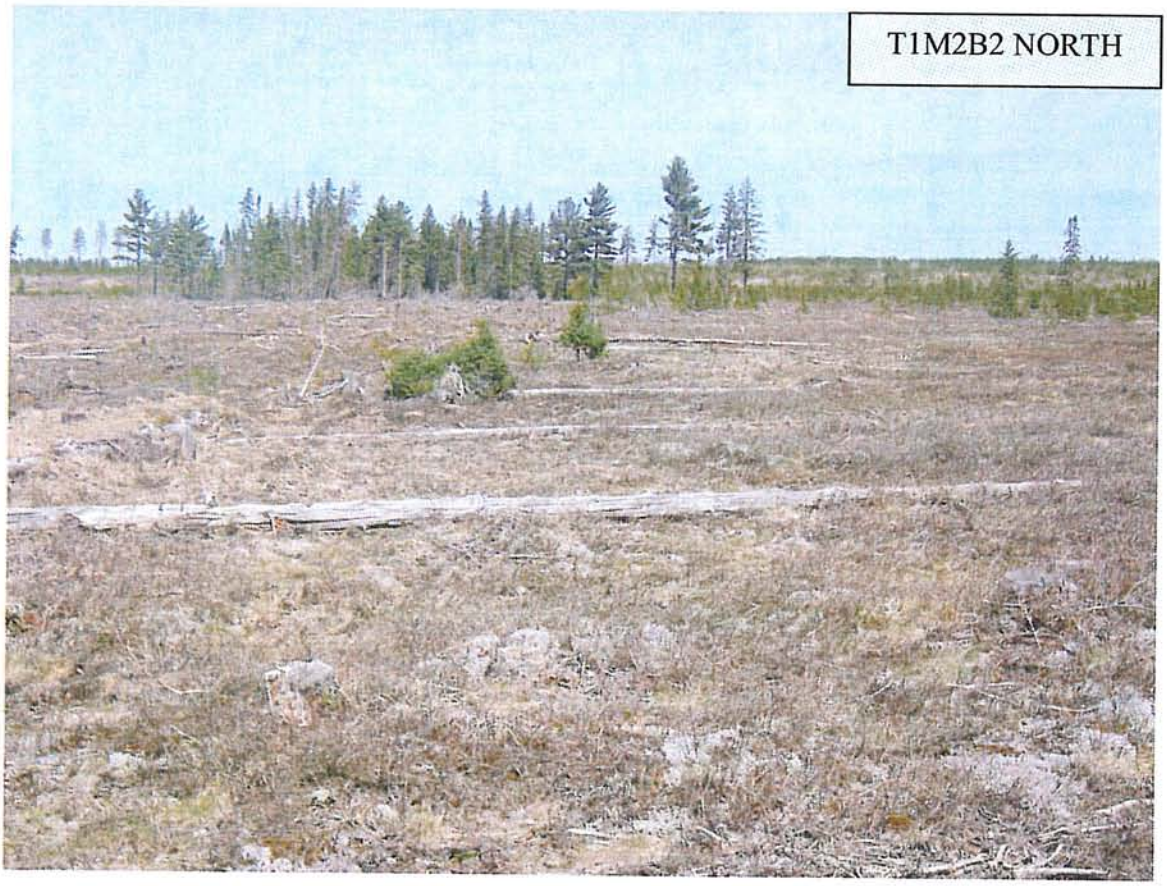
TRAP SITES		HABITAT DESCRIPTION AT PLOTS			PHOTOGRAPH
Transect	Site	General Description	Dominant Plant Species		
			Common Name	Scientific Name	
	3	Cut, open, young red pine growth, sparse herbaceous layer, sandy soils	Red Pine	*Pinus resinosa*	T4M3B3 NORTH T4M3B3 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
5	1	Cut, young red pine growth, sparse herbaceous layer, small patches of grass, sandy soils	Red Pine	*Pinus resinosa*	T5M1B1 NORTH T5M1B1 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Brachen Fern	*Pteridium aquilinum*	
			Grass	Unidentified grass	
	2	Black spruce bog, relatively dense stand of conifers, organic soils.	Black Spruce	*Picea mariana*	T5M2B2 NORTH T5M2B2 SOUTH
			Canada Blueberry	*Vaccinium myrtilloides*	
			Tammarack	*Larix laricina*	
			Labrador tea	*Ledum groenlandicum*	
			Sphagnum moss	*Sphagnum sp.*	
			Wintergreen	*Gautheria procumbens*	
	3	Open stand, coniferous forest, mature, sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T5M3B3 NORTH T5M3B3 SOUTH
			Brachen Fern	*Pteridium aquilinum*	
6	1	Cut, open area with mix of young deciduous and coniferous trees, sparse herbaceous layer, sandy soils.	Red Pine	*Pinus resinosa*	T6M1B1 NORTH T6M1B1 SOUTH
			Blueberry	*Vaccinium angustifolium*	
			Quaking aspen	*Populus tremuloides*	
			Brachen Fern	*Pteridium aquilinum*	
			Grass	Unidentified grass	
	2	Black spruce bog, relatively open stand of conifers, organic soils.	Black Spruce	*Picea mariana*	T6M2B2 NORTH T6M2B2 SOUTH
			Tamarack	*Larix laricina*	
			Canada Blueberry	*Vaccinium Myrtilloides*	

GENERAL HABITAT DESCRIPTIONS AT MAMMAL AND VARIABLE CIRCULAR PLOT SAMPLE SITES (May 2004)

TRAP SITES		HABITAT DESCRIPTION AT PLOTS			PHOTOGRAPH
Transect	Site	General Description	Dominant Plant Species		
			Common Name	Scientific Name	
6	2	Cont. from above	Labrador tea	*Ledum groenlandicum*	
			Sphagnum moss	*Sphagnum sp.*	
			Wild blue flag iris	*Iris versicolor*	
			Sedge	*Carex sp.*	
	3	Open stand, coniferous forest, mature, sparse shrub layer, sparse herbaceous layer, sandy soils.	Jack Pine	*Pinus banksiana*	T6M3B3 NORTH T6M3B3 SOUTH
			Brachen Fern	*Pteridium aquilinum*	
7	1	Old cut area, mixture of deciduous and coniferous trees, open, on sloping ground near black spruce bog, sandy soils.	Balsam fir	*Abies balsamea*	T7M1B1 NORTH T7M1B1 SOUTH
			Quaking aspen	*Populus tremuloides*	
			Paper birch	*Betula papyrifera*	
			Brachen Fern	*Pteridium aquilinum*	
	2	Mature upland coniferous woods, scattered deciduous trees, relatively open understory, sparse herbaceous layer, sandy soils	Balsam fir	*Abies balsamea*	T7M2B2 NORTH T7M2B2 SOUTH
			Wintergreen	*Gautheria procumbens*	
			Blueberry	*Vaccinium angustifolium*	
			White pine	*Pinus strobus*	
			Paper birch	*Betula papyrifera*	
			Red maple	Acer rubrum	
	3	Open stand, coniferous forest, mature, sparse shrub layer, sparse herbaceous layer, sloping ground, sandy soils.	Norway spruce	*Picea abies*	T7M3B3 NORTH T7M3B3 SOUTH
			Wintergreen	*Gautheria procumbens*	
			Blueberry	*Vaccinium angustifolium*	
			Red maple	*Acer rubrum*	
			Brachen Fern	*Pteridium aquilinum*	
			Balsam fir	*Abies balsamea*	


T1M1B1 NORTH


T1M1B1 SOUTH

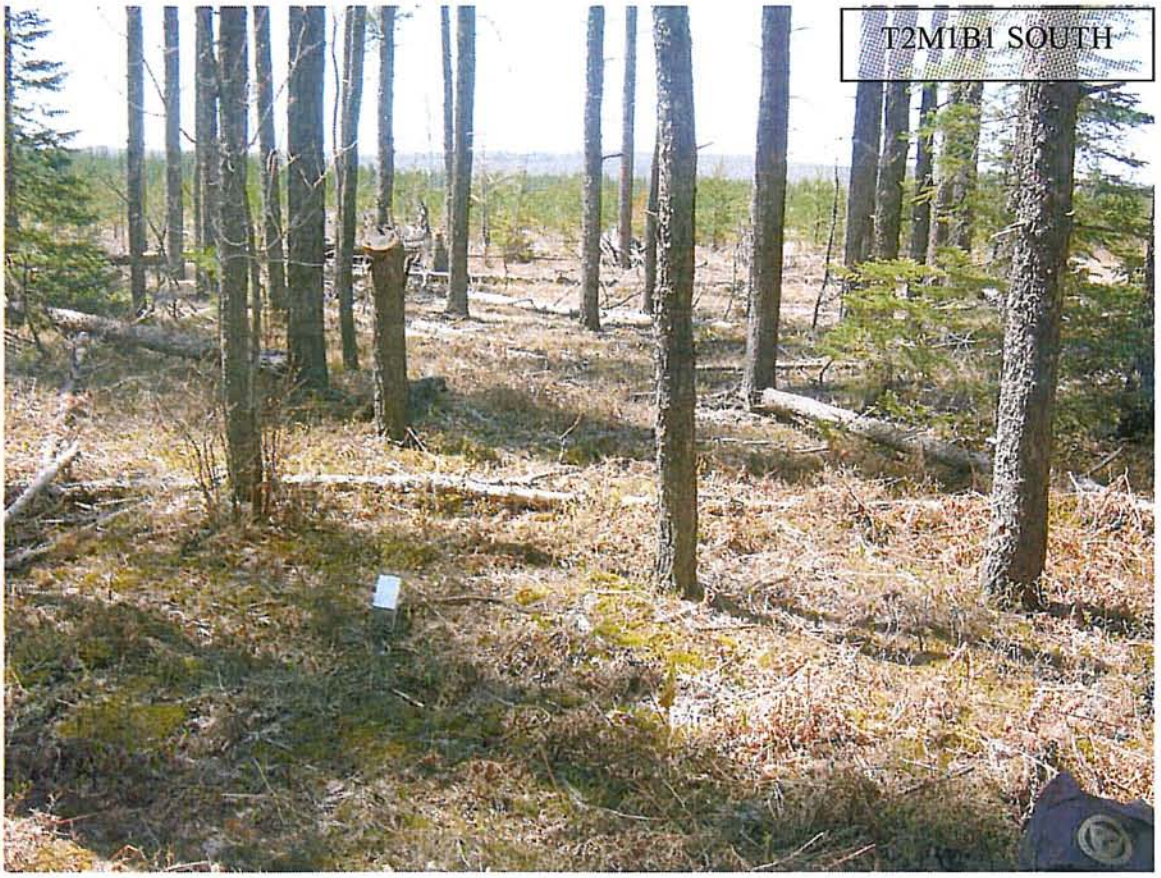

T1M2B2 NORTH

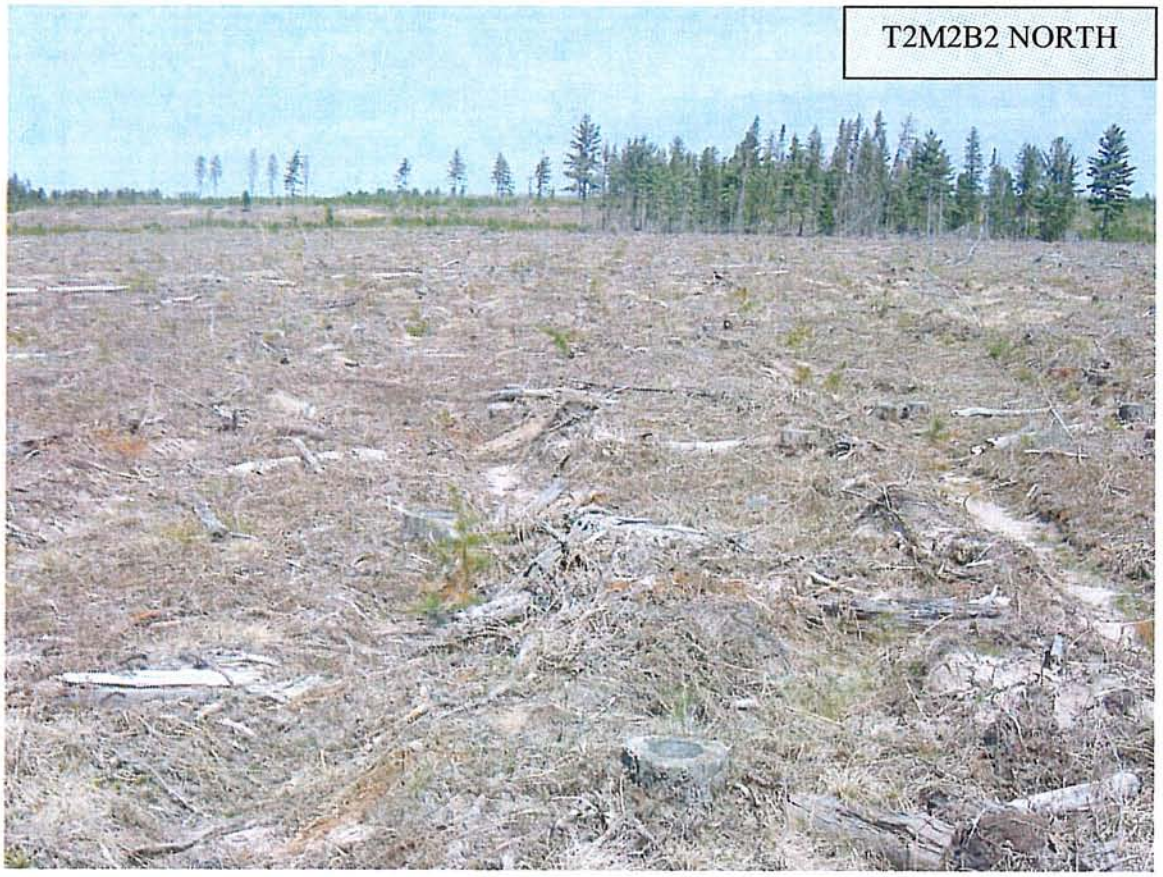

T1M2B2 SOUTH

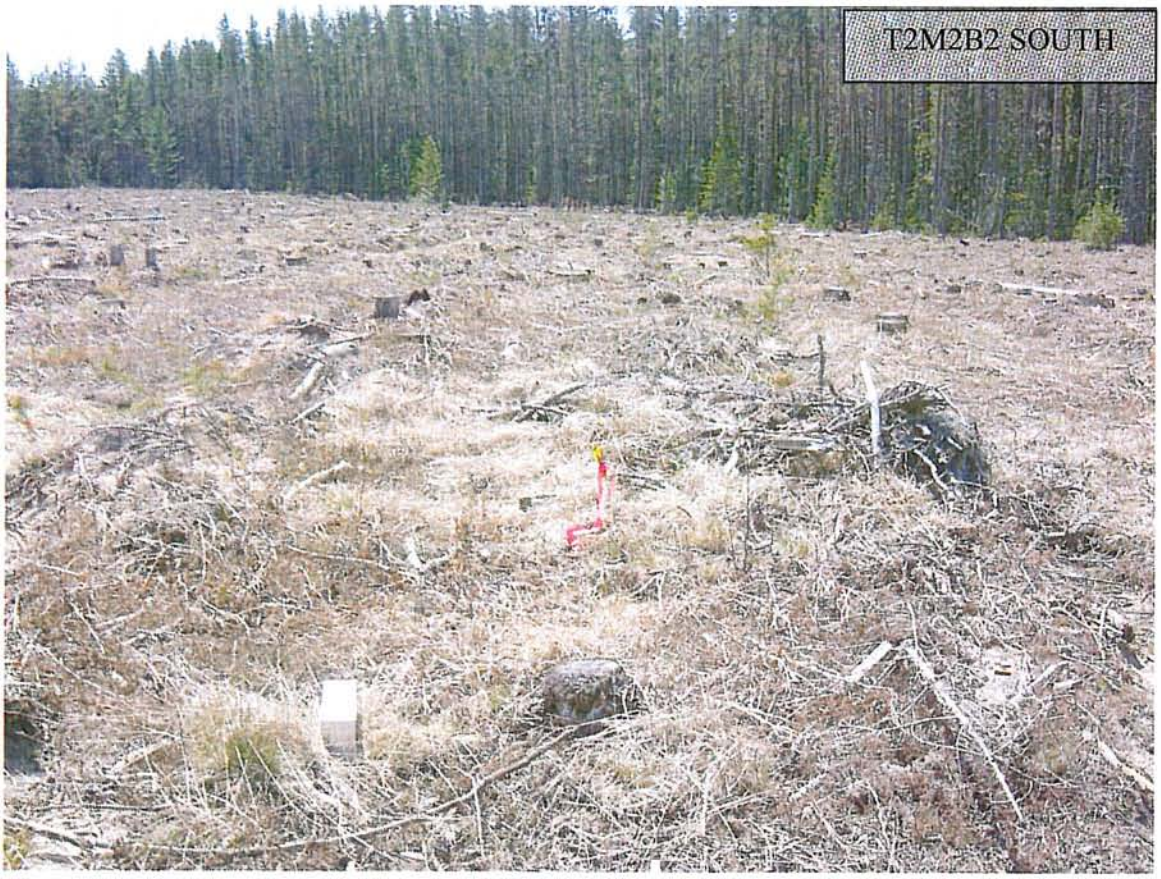

T1M3B3 NORTH


T1M3B3 SOUTH

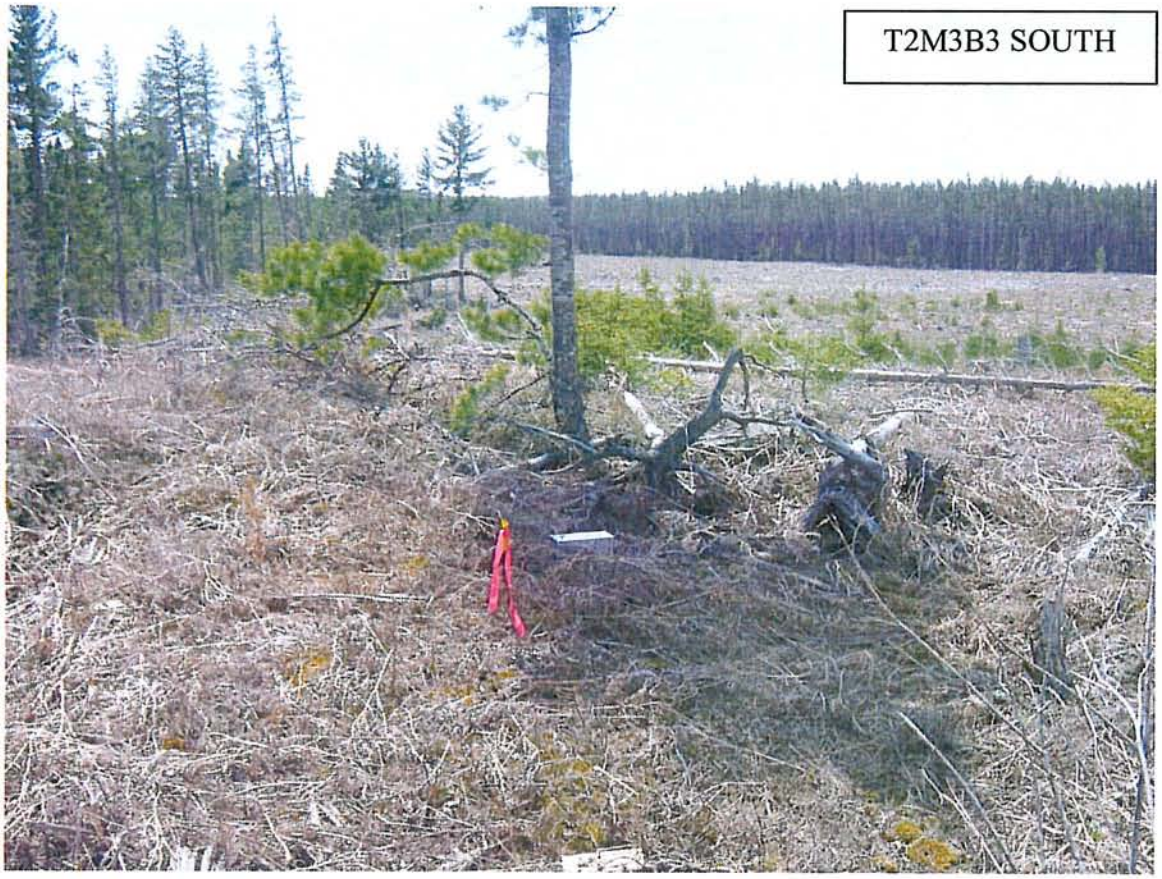

T2M1B1 NORTH


T2M1B1 SOUTH


T2M2B2 NORTH


T2M2B2 SOUTH


T2M3B3 NORTH


T2M3B3 SOUTH


T3M1B1 NORTH


T3M1B1 SOUTH


T3M2B2 NORTH


T3M2B2 SOUTH


T3M3B3 NORTH


T3M3B3 SOUTH

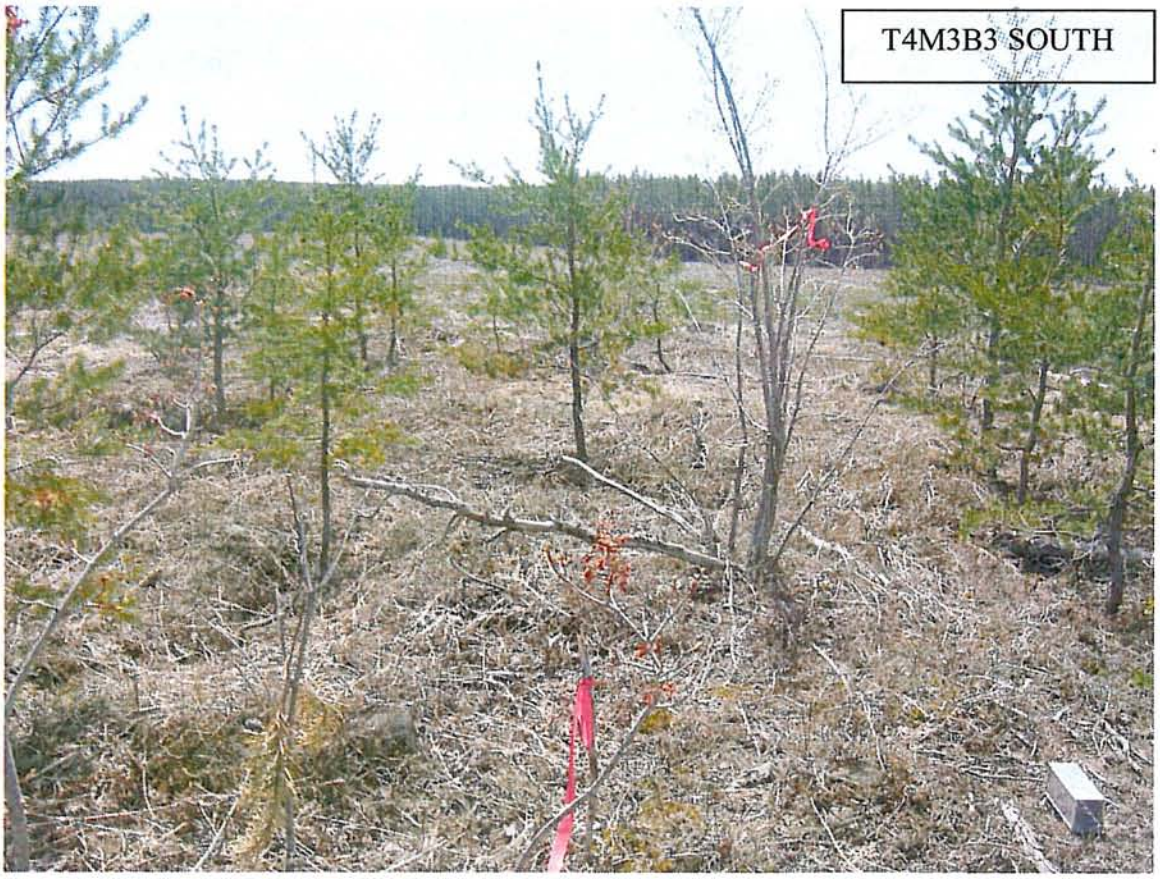

T4M1B1 NORTH


T4M1B1 SOUTH


T4M2B2 NORTH


T4M2B2 SOUTH


T4M3B3 NORTH


T4M3B3 SOUTH


T5M1B1 NORTH


T5M1B1 SOUTH


T5M2B2 NORTH


T5M2B2 SOUTH


T5M3B3 NORTH


T5M3B3 SOUTH

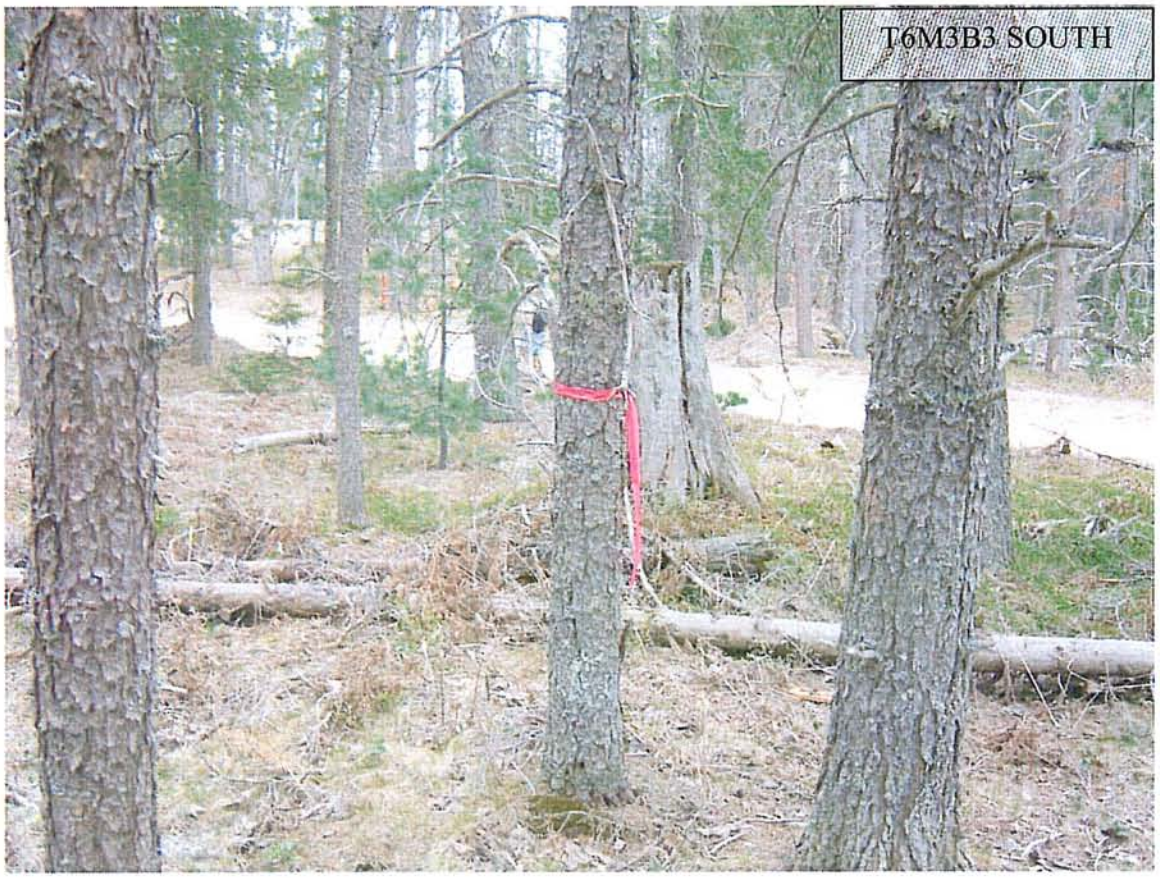

T6M1B1 NORTH


T6M1B1 SOUTH


T6M2B2 NORTH


T6M2B2 SOUTH


T6M3B3 NORTH


T6M3B3 SOUTH


T7M1B1 NORTH


T7M1B1 SOUTH


T7M2B2 NORTH


T7M2B2 SOUTH


T7M3B3 NORTH


T7M3B3 SOUTH

APPENDIX B2

Bird Data
Photographs

# of Birds Observed			
STATION	**MAY**	**JUNE**	**OCT**
T1B1	1	25	56
T1B2*	1	26	9
T1B3*	0	18	17
T2B1	1	19	30
T2B2*	0	21	17
T2B3*	3	22	6
T3B1	1	18	54
T3B2	0	22	9
T3B3*	0	21	9
T4B1	2	30	9
T4B2	0	23	25
T4B3	0	27	19
T5B1	2	28	14
T5B2	0	28	22
T5B3	6	22	52
T6B1	1	19	16
T6B2	8	32	10
T6B3	10	20	13
T7B1	0	23	13
T7B2	1	15	17
T7B3	1	21	15
Total	**38**	**480**	**432**
Grand Total Number birds observed:			**950**

Species Variety per Station			
STATION	**MAY**	**JUNE**	**OCT**
T1B1	1	13	4
T1B2*	1	12	2
T1B3*	0	11	4
T2B1	1	10	5
T2B2*	0	9	5
T2B3*	2	11	2
T3B1	1	9	7
T3B2	0	11	4
T3B3*	0	14	3
T4B1	2	14	6
T4B2	0	12	5
T4B3	0	11	6
T5B1	2	13	5
T5B2	0	9	7
T5B3	2	11	7
T6B1	1	9	10
T6B2	1	14	8
T6B3	3	8	6
T7B1	0	13	7
T7B2	1	9	7
T7B3	1	11	5
Total	**19**	**234**	**115**

***clear-cut**

BIRD INVENTORY DATA

AOU Code	Common Name	May	June	Oct
ALFL	Alder Flycatcher		x	
AMCR	American Crow			x
AMGO	American Goldfinch		x	
AMRE	American Redstart	x		
AMRO	American Robin		x	x
BCCH	Black-Capped Chickadee		x	x
BCKI	Golden-crowned Kinglet		x	x
BHVI	Blue-headed Vireo		x	
BLJA	Blue Jay	x	x	x
BOCH	Boreal Chickadee			x
BRCR	Brown Creeper		x	x
BRTH	Brown Thrasher		x	
CAGO	Canada Goose			x
CCSP	Clay Colored Sparrow		x	
CEDW	Cedar Waxwing		x	
CHSP	Chirping Sparrow	x	x	
CORA	Common Raven	x		x
COYE	Common Yellow Throat		x	
DOWO	Downy Woodpecker			x
EABL	Eastern Bluebird		x	
EAKI	Eastern Kingbird		x	
EATO	Eastern Tohee	x		
ECGR	Evening Grosbeak		x	x
GRAJ	Gray Jay			x
HAWO	Hairy Woodpecker		x	x
HETH	Hermit thrush	x	x	
LEFL	Least Flycatcher		x	
LEOW	Long-eared owl	x		
MAWA	Magnolia Warbler		x	
NAWA	Nashville Warbler		x	
NOFL	Northern Flicker	x		
NOGO	Northern Goshawk			x
OSFL	Olive-sided Flycatcher		x	
OVEN	Ovenbird	x	x	
PISI	Pine Siskin			x
PIWA	Pine Warbler	x		
PLWO	Pileated Woodpecker	x		x
PUFI	Purple Finch			x
RBNU	Red-breasted Nuthatch		x	x
RCKI	Ruby-crowned Kinglet		x	x
RTHA	Red Tail Hawk			x
RUGR	Ruffed Grouse	x		
SACR	Sandhill Crane	x	x	
SCJU	Slate-colored (dark-eyed) Junco	x	x	x
SOSP	Song Sparrow	x		
SPGB	Spruce Grouse		x	x

AOU Code	Common Name	May	June	Oct
SWTH	Swanson's Thrush	x		x
UNWA	Unknown Warbler	x		
UNWO	Unknown Woodpecker	x	x	
VESP	Vesper Sparrow		x	
WIWR	Winter Wren	x	x	
WTSP	White-throated Sparrow	x	x	x
WWCR	White-winged crossbill		x	
YRWA	Yellow-rumped Warbler	x	x	x
YSFL	Yellow-shafted Flicker		x	x

BIRD DATA
MAY 2004 SURVEY

Station	Date	AOU Code	Common Name	Distance(m)	Detection
T1B1	5/19/2004	SOSP	Song Sparrow	18	Auditory
T1B2	5/19/2004	WTSP	White-throated sparrow	30	Auditory
T2B1	5/19/2004	PIWA	Pine Warbler	18	Auditory
T2B3	5/19/2004	NOFL	Northern Flicker	20	Auditory
T2B3	5/19/2004	NOFL	Northern Flicker	20	Auditory
T2B3	5/19/2004	EATO	Eastern Tohee	30	Auditory
T3B1	5/19/2004	BLJA	Blue Jay	18	Auditory
T4B1	5/19/2004	WTSP	White-throated sparrow	18	Auditory
T4B1	5/19/2004	PIWA	Pine Warbler	18	Auditory
T5B1	5/19/2004	SOSP	Song Sparrow	20	Auditory
T5B1	5/19/2004	AMRE	American redstart	30	Auditory
T5B3	5/19/2004	YRWA	Yellow-rumped warbler	10	Auditory
T5B3	5/19/2004	SCJU	Slate colored Junco	10	Auditory
T5B3	5/19/2004	SCJU	Slate colored Junco	10	Auditory
T5B3	5/19/2004	SCJU	Slate colored Junco	10	Auditory
T5B3	5/19/2004	SCJU	Slate colored Junco	10	Auditory
T5B3	5/19/2004	SCJU	Slate colored Junco	10	Auditory
T6B1	5/20/2004	YRWA	Yellow-rumped warbler	20	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B2	5/20/2004	WTSP	White-throated sparrow	18	Auditory
T6B3	5/20/2004	YRWA	Yellow-rumped warbler	18	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	6	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	6	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	6	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	12	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	12	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	12	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	12	Auditory
T6B3	5/20/2004	SWTH	Swanson's thrush	18	Auditory
T6B3	5/20/2004	HETH	Hermit thrush	12	Auditory
T7B2	5/20/2004	OVEN	Oven bird	18	Auditory
T7B3	5/20/2004	WTSP	White-throated sparrow	18	Auditory

BIRD DATA
JUNE 2004 SURVEY

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T1B3	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T1B3	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T1B3	6/22/2004	HETH	Hermit Thrush	50	Auditory
T1B3	6/22/2004	SCJU	Slate-colored (Dark eyed) Junco	50	Auditory
T1B3	6/22/2004	AMGO	American Goldfinch	100	Auditory
T1B3	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T1B3	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T1B3	6/22/2004	UNWO	Unknown Woodpecker	150	Auditory
T1B3	6/22/2004	AMRO	American Robin	150	Auditory
T1B3	6/22/2004	AMRO	American Robin	150	Auditory
T1B3	6/22/2004	AMRO	American Robin	150	Auditory
T1B3	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T1B3	6/22/2004	HETH	Hermit Thrush	150	Auditory
T2B3	6/22/2004	CHSP	Chipping Sparrow	50	Auditory
T2B3	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T2B3	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T2B3	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T2B3	6/22/2004	AMGO	American Goldfinch	100	Auditory
T2B3	6/22/2004	HETH	Hermit Thrush	100	Auditory
T2B3	6/22/2004	HETH	Hermit Thrush	150	Auditory
T2B3	6/22/2004	HETH	Hermit Thrush	150	Auditory
T2B3	6/22/2004	HETH	Hermit Thrush	150	Auditory
T2B3	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T2B3	6/22/2004	AMRO	American Robin	150	Auditory
T2B3	6/22/2004	VESP	Vesper Sparrow	150	Auditory
T2B3	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T2B3	6/22/2004	UNWO	Unknown Woodpecker	150	Auditory
T2B3	6/22/2004	AMRO	American Robin	150	Auditory
T2B3	6/22/2004	BRTH	Brown Thrasher	150	Auditory
T3B3	6/22/2004	VESP	Vesper Sparrow	50	Auditory
T3B3	6/22/2004	AMGO	American Goldfinch	100	Auditory
T3B3	6/22/2004	HETH	Hermit Thrush	100	Auditory
T3B3	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T3B3	6/22/2004	NAWA	Nashville Warbler	150	Auditory
T3B3	6/22/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T3B3	6/22/2004	SACR	Sandhill Crane	1000	Auditory
T3B3	6/22/2004	SACR	Sandhill Crane	1000	Auditory
T3B3	6/22/2004	BRTH	Brown Thrasher	200	Auditory
T3B3	6/22/2004	CHSP	Chipping Sparrow	150	Auditory
T3B3	6/22/2004	BLJA	Blue Jay	300	Auditory
T3B3	6/22/2004	AMRO	American Robin	150	Auditory
T3B3	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T3B3	6/22/2004	HETH	Hermit Thrush	150	Auditory
T3B3	6/22/2004	AMRO	American Robin	150	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T3B3	6/22/2004	RBNU	Red-breasted Nuthatch	150	Auditory
T4B3	6/22/2004	BHVI	Blue-headed Vireo	30	Auditory
T4B3	6/22/2004	CHSP	Chipping Sparrow	30	Auditory
T4B3	6/22/2004	HETH	Hermit Thrush	50	Auditory
T4B3	6/22/2004	AMRO	American Robin	50	Auditory
T4B3	6/22/2004	BRCR	Brown Creeper	100	Auditory
T4B3	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T4B3	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T4B3	6/22/2004	AMRO	American Robin	150	Auditory
T4B3	6/22/2004	AMRO	American Robin	150	Auditory
T4B3	6/22/2004	AMRO	American Robin	150	Auditory
T4B3	6/22/2004	VESP	Vesper Sparrow	150	Auditory
T4B3	6/22/2004	RBNU	Red-breasted Nuthatch	150	Auditory
T4B3	6/22/2004	BRTH	Brown Thrasher	250	Auditory
T4B3	6/22/2004	NAWA	Nashville Warbler	150	Auditory
T4B3	6/22/2004	AMRO	American Robin	250	Auditory
T4B2	6/22/2004	GCKI	Golden-crowned Kinglet	30	Auditory
T4B2	6/22/2004	GCKI	Golden-crowned Kinglet	30	Auditory
T4B2	6/22/2004	EAKI	Eastern Kingbird	30	Auditory
T4B2	6/22/2004	CHSP	Chipping Sparrow	30	Auditory
T4B2	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T4B2	6/22/2004	AMRO	American Robin	50	Auditory
T4B2	6/22/2004	BRCR	Brown Creeper	100	Auditory
T4B2	6/22/2004	GCKI	Golden-crowned Kinglet	100	Auditory
T4B2	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T4B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T4B2	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T4B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T3B2	6/22/2004	NAWA	Nashville Warbler	15	Auditory
T3B2	6/22/2004	BRCR	Brown Creeper	30	Auditory
T3B2	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T3B2	6/22/2004	VESP	Vesper Sparrow	50	Auditory
T3B2	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T3B2	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T3B2	6/22/2004	AMRO	American Robin	100	Auditory
T3B2	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T3B2	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T3B2	6/22/2004	BHVI	Blue-headed Vireo	100	Auditory
T3B2	6/22/2004	VESP	Vesper Sparrow	150	Auditory
T3B2	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T3B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T3B2	6/22/2004	BLJA	Blue Jay	200	Auditory
T3B2	6/22/2004	BLJA	Blue Jay	200	Auditory
T2B2	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T2B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T2B2	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T2B2	6/22/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T2B2	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T2B2	6/22/2004	AMRO	American Robin	100	Auditory
T2B2	6/22/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T2B2	6/22/2004	BHVI	Blue-headed Vireo	400	Auditory
T2B2	6/22/2004	VESP	Vesper Sparrow	150	Auditory
T2B2	6/22/2004	NAWA	Nashville Warbler	150	Auditory
T2B2	6/22/2004	AMRO	American Robin	200	Auditory
T2B2	6/22/2004	NAWA	Nashville Warbler	150	Auditory
T1B2	6/22/2004	VESP	Vesper Sparrow	30	Auditory
T1B2	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T1B2	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T1B2	6/22/2004	NAWA	Nashville Warbler	150	Auditory
T1B2	6/22/2004	VESP	Vesper Sparrow	150	Auditory
T1B2	6/22/2004	RBNU	Red-breasted Nuthatch	350	Auditory
T1B2	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T1B2	6/22/2004	AMRO	American Robin	150	Auditory
T1B2	6/22/2004	YRWA	Yellow-rumped Warbler	150	Auditory
T1B2	6/22/2004	RBNU	Red-breasted Nuthatch	150	Auditory
T1B2	6/22/2004	BRCR	Brown Creeper	150	Auditory
T1B2	6/22/2004	YRWA	Yellow-rumped Warbler	150	Auditory
T1B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T1B2	6/22/2004	HETH	Hermit Thrush	150	Auditory
T3B1	6/22/2004	BRCR	Brown Creeper	30	Auditory
T3B1	6/22/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T3B1	6/22/2004	BHVI	Blue-headed Vireo	100	Auditory
T3B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T3B1	6/22/2004	HETH	Hermit Thrush	100	Auditory
T3B1	6/22/2004	AMRO	American Robin	100	Auditory
T3B1	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T3B1	6/22/2004	VESP	Vesper Sparrow	150	Auditory
T3B1	6/22/2004	HETH	Hermit Thrush	150	Auditory
T1B1	6/22/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T1B1	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T1B1	6/22/2004	RBNU	Red-breasted Nuthatch	50	Auditory
T1B1	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T1B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T1B1	6/22/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T1B1	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T1B1	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T1B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T2B1	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T2B1	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T2B1	6/22/2004	EVGR	Evening Grosbeak	50	Auditory
T2B1	6/22/2004	EVGR	Evening Grosbeak	100	Auditory
T2B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T2B1	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T2B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T2B1	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T2B1	6/22/2004	AMRO	American Robin	150	Auditory
T4B1	6/22/2004	AMGO	American Goldfinch	50	Flyover

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T4B1	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T4B1	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T4B1	6/22/2004	CHSP	Chipping Sparrow	50	Auditory
T4B1	6/22/2004	SOSP	Song Sparrow	50	Auditory
T4B1	6/22/2004	WTSP	White-throated Sparrow	100	Auditory
T4B1	6/22/2004	WTSP	White-throated Sparrow	100	Auditory
T4B1	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T4B1	6/22/2004	BHVI	Blue-headed Vireo	100	Auditory
T4B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T4B1	6/22/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T4B1	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T4B1	6/22/2004	NAWA	Nashville Warbler	110	Auditory
T4B1	6/22/2004	WIWR	Winter Wren	150	Auditory
T7B1	6/22/2004	NAWA	Nashville Warbler	30	Auditory
T7B1	6/22/2004	NAWA	Nashville Warbler	30	Auditory
T7B1	6/22/2004	WTSP	White-throated Sparrow	30	Auditory
T7B1	6/22/2004	BCCH	Black-capped Chickadee	30	Auditory
T7B1	6/22/2004	AMGO	American Goldfinch	50	Auditory
T7B1	6/22/2004	WTSP	White-throated Sparrow	100	Auditory
T7B1	6/22/2004	EVGR	Evening Grosbeak	100	Auditory
T7B1	6/22/2004	WIWR	Winter Wren	100	Auditory
T7B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B1	6/22/2004	AMRO	American Robin	100	Auditory
T6B1	6/22/2004	WTSP	White-throated Sparrow	100	Auditory
T6B1	6/22/2004	WIWR	Winter Wren	150	Auditory
T6B1	6/22/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T5B1	6/22/2004	VESP	Vesper Sparrow	50	Auditory
T5B1	6/22/2004	CHSP	Chipping Sparrow	50	Auditory
T5B1	6/22/2004	AMGO	American Goldfinch	50	Auditory
T5B1	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T5B1	6/22/2004	VESP	Vesper Sparrow	100	Auditory
T5B1	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T5B1	6/22/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T5B1	6/22/2004	WIWR	Winter Wren	150	Auditory
T5B1	6/22/2004	BHVI	Blue-headed Vireo	150	Auditory
T5B1	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T5B1	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T5B1	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T5B1	6/22/2004	WTSP	White-throated Sparrow	100	Auditory
T5B2	6/22/2004	NAWA	Nashville Warbler	30	Auditory
T5B2	6/22/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T5B2	6/22/2004	NAWA	Nashville Warbler	30	Auditory
T5B2	6/22/2004	WTSP	White-throated Sparrow	100	Auditory
T5B2	6/22/2004	WIWR	Winter Wren	100	Auditory
T5B2	6/22/2004	RCKI	Ruby-crowned Kinglet	100	Auditory
T5B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T5B2	6/22/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T5B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T5B2	6/22/2004	RCKI	Ruby-crowned Kinglet	150	Auditory
T5B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T6B2	6/22/2004	SWSP	Swamp Sparrow	30	Auditory
T6B2	6/22/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T6B2	6/22/2004	BCCH	Black-capped Chickadee	50	Auditory
T6B2	6/22/2004	GCKI	Golden-crowned Kinglet	50	Auditory
T6B2	6/22/2004	RCKI	Ruby-crowned Kinglet	50	Auditory
T6B2	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T6B2	6/22/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T6B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B2	6/22/2004	WIWR	Winter Wren	100	Auditory
T6B2	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B2	6/22/2004	HETH	Hermit Thrush	150	Auditory
T6B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T6B2	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T6B2	6/22/2004	SPGR	Spruce Grouse	15	Flushed
T5B3	6/22/2004	SCJU	Slate-colored (Dark eyed) Junco	30	Auditory
T5B3	6/22/2004	SCJU	Slate-colored (Dark eyed) Junco	30	Auditory
T5B3	6/22/2004	YRWA	Yellow-rumped Warbler	30	Visual
T5B3	6/22/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T5B3	6/22/2004	CHSP	Chipping Sparrow	50	Visual
T5B3	6/22/2004	CHSP	Chipping Sparrow	50	Visual
T5B3	6/22/2004	AMRO	American Robin	100	Auditory
T5B3	6/22/2004	AMGO	American Goldfinch	100	Auditory
T5B3	6/22/2004	AMGO	American Goldfinch	100	Auditory
T5B3	6/22/2004	HETH	Hermit Thrush	150	Auditory
T6B3	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T6B3	6/22/2004	AMRO	American Robin	50	Auditory
T6B3	6/22/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T6B3	6/22/2004	BHVI	Blue-headed Vireo	50	Auditory
T6B3	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T6B3	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T7B3	6/22/2004	NAWA	Nashville Warbler	30	Auditory
T7B3	6/22/2004	AMKE	American Kestrel	50	Auditory
T7B3	6/22/2004	NAWA	Nashville Warbler	50	Auditory
T7B3	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T7B3	6/22/2004	CHSP	Chipping Sparrow	100	Auditory
T7B3	6/22/2004	NAWA	Nashville Warbler	100	Auditory
T7B3	6/22/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T7B3	6/22/2004	WTSP	White-throated Sparrow	150	Auditory
T7B3	6/22/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T7B2	6/22/2004	GCKI	Golden-crowned Kinglet	30	Auditory
T7B2	6/22/2004	NAWA	Nashville Warbler	30	Auditory
T7B2	6/22/2004	MAWA	Magnolia Warbler	30	Visual
T7B2	6/22/2004	WIWR	Winter Wren	100	Auditory
T7B2	6/22/2004	OVEN	Ovenbird	100	Auditory
T7B2	6/22/2004	UNWO	Unknown Woodpecker	100	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T7B2	6/22/2004	WIWR	Winter Wren	100	Auditory
T7B2	6/23/2004	MAWA	Magnolia Warbler	30	Auditory
T7B2	6/23/2004	OVEN	Ovenbird	50	Auditory
T7B2	6/23/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T7B2	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T7B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T7B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T7B2	6/23/2004	HETH	Hermit Thrush	100	Auditory
T7B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T7B3	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T7B3	6/23/2004	SCJU	Slate-colored (Dark eyed) Junco	100	Auditory
T7B3	6/23/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T7B3	6/23/2004	BHVI	Blue-headed Vireo	100	Auditory
T7B3	6/23/2004	AMRO	American Robin	100	Auditory
T7B3	6/23/2004	WIWR	Winter Wren	100	Auditory
T7B3	6/23/2004	BHVI	Blue-headed Vireo	100	Auditory
T7B3	6/23/2004	AMRO	American Robin	100	Auditory
T7B3	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T7B3	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T7B3	6/23/2004	OSFL	Olive-sided Flycatcher	150	Auditory
T7B3	6/23/2004	WIWR	Winter Wren	150	Auditory
T6B3	6/23/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T6B3	6/23/2004	HETH	Hermit Thrush	50	Auditory
T6B3	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T6B3	6/23/2004	HETH	Hermit Thrush	100	Auditory
T6B3	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T6B3	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T6B3	6/23/2004	AMRO	American Robin	100	Auditory
T6B3	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T6B3	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T6B3	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T6B3	6/23/2004	AMRO	American Robin	150	Auditory
T6B3	6/23/2004	WIWR	Winter Wren	150	Auditory
T6B3	6/23/2004	HETH	Hermit Thrush	150	Auditory
T6B3	6/23/2004	AMRO	American Robin	150	Auditory
T5B3	6/23/2004	NAWA	Nashville Warbler	30	Auditory
T5B3	6/23/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T5B3	6/23/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T5B3	6/23/2004	AMGO	American Goldfinch	100	Auditory
T5B3	6/23/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T5B3	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T5B3	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T5B3	6/23/2004	HETH	Hermit Thrush	100	Auditory
T5B3	6/23/2004	OSFL	Olive-sided Flycatcher	300	Auditory
T5B3	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T5B3	6/23/2004	WIWR	Winter Wren	150	Auditory
T5B3	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T6B2	6/23/2004	HAWO	Hairy Woodpecker	15	Auditory
T6B2	6/23/2004	YRWA	Yellow-rumped Warbler	15	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T6B2	6/23/2004	LEFL	Least Flycatcher	15	Auditory
T6B2	6/23/2004	NAWA	Nashville Warbler	30	Auditory
T6B2	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T6B2	6/23/2004	RCKI	Ruby-crowned Kinglet	50	Auditory
T6B2	6/23/2004	WTSP	White-throated Sparrow	50	Auditory
T6B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T6B2	6/23/2004	RCKI	Ruby-crowned Kinglet	100	Auditory
T6B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T6B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T6B2	6/23/2004	BHVI	Blue-headed Vireo	100	Auditory
T6B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T6B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T6B2	6/23/2004	OSFL	Olive-sided Flycatcher	150	Auditory
T6B2	6/23/2004	SPGR	Spruce Grouse	50	Visual
T5B2	6/23/2004	NAWA	Nashville Warbler	15	Auditory
T5B2	6/23/2004	WTSP	White-throated Sparrow	30	Auditory
T5B2	6/23/2004	YRWA	Yellow-rumped Warbler	30	Auditory
T5B2	6/23/2004	GCKI	Golden-crowned Kinglet	50	Auditory
T5B2	6/23/2004	RCKI	Ruby-crowned Kinglet	50	Auditory
T5B2	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T5B2	6/23/2004	HETH	Hermit Thrush	100	Auditory
T5B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T5B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T5B2	6/23/2004	RCKI	Ruby-crowned Kinglet	100	Auditory
T5B2	6/23/2004	BHVI	Blue-headed Vireo	100	Auditory
T5B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T5B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T5B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T5B2	6/23/2004	HETH	Hermit Thrush	150	Auditory
T5B2	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T5B2	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T5B1	6/23/2004	CCSP	Clay-colored Sparrow	30	Auditory
T5B1	6/23/2004	EAKI	Eastern Kingbird	30	Auditory
T5B1	6/23/2004	AMRO	American Robin	30	Auditory
T5B1	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T5B1	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T5B1	6/23/2004	VESP	Vesper Sparrow	50	Auditory
T5B1	6/23/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T5B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T5B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T5B1	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T5B1	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T5B1	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T5B1	6/23/2004	AMRO	American Robin	150	Auditory
T5B1	6/23/2004	WIWR	Winter Wren	150	Auditory
T5B1	6/23/2004	BHVI	Blue-headed Vireo	150	Auditory
T6B1	6/23/2004	RBNU	Red-breasted Nuthatch	30	Auditory
T6B1	6/23/2004	WTSP	White-throated Sparrow	50	Auditory
T6B1	6/23/2004	AMGO	American Goldfinch	50	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T6B1	6/23/2004	BCCH	Black-capped Chickadee	50	Auditory
T6B1	6/23/2004	WTSP	White-throated Sparrow	50	Auditory
T6B1	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T6B1	6/23/2004	AMRO	American Robin	100	Auditory
T6B1	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T6B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T6B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T6B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T6B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T6B1	6/23/2004	WIWR	Winter Wren	150	Auditory
T6B1	6/23/2004	HETH	Hermit Thrush	150	Auditory
T7B1	6/23/2004	WTSP	White-throated Sparrow	15	Auditory
T7B1	6/23/2004	NAWA	Nashville Warbler	30	Auditory
T7B1	6/23/2004	NAWA	Nashville Warbler	30	Auditory
T7B1	6/23/2004	RBNU	Red-breasted Nuthatch	50	Auditory
T7B1	6/23/2004	COYE	Common Yellowthroat	50	Auditory
T7B1	6/23/2004	LEFL	Least Flycatcher	100	Auditory
T7B1	6/23/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T7B1	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T7B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T7B1	6/23/2004	ALFL	Alder Flycatcher	100	Auditory
T7B1	6/23/2004	HETH	Hermit Thrush	150	Auditory
T7B1	6/23/2004	WIWR	Winter Wren	150	Auditory
T7B1	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T7B1	6/23/2004	CEDW	Cedar Waxwing	100	Auditory
T4B1	6/23/2004	WTSP	White-throated Sparrow	15	Visual
T4B1	6/23/2004	WTSP	White-throated Sparrow	15	Visual
T4B1	6/23/2004	NAWA	Nashville Warbler	15	Auditory
T4B1	6/23/2004	SCJU	Slate-colored (Dark eyed) Junco	50	Auditory
T4B1	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T4B1	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T4B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T4B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T4B1	6/23/2004	EAKI	Eastern Kingbird	100	Auditory
T4B1	6/23/2004	AMGO	American Goldfinch	100	Auditory
T4B1	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T4B1	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T4B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T4B1	6/23/2004	HAWO	Hairy Woodpecker	100	Auditory
T4B1	6/23/2004	BLJA	Blue Jay	150	Auditory
T4B1	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T2B1	6/23/2004	NAWA	Nashville Warbler	30	Auditory
T2B1	6/23/2004	VESP	Vesper Sparrow	50	Auditory
T2B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T2B1	6/23/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T2B1	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T2B1	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T2B1	6/23/2004	AMGO	American Goldfinch	100	Auditory
T2B1	6/23/2004	HETH	Hermit Thrush	150	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T2B1	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T2B1	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T1B1	6/23/2004	WWCR	White-winged Crossbill	30	Auditory
T1B1	6/23/2004	BRCR	Brown Creeper	30	Auditory
T1B1	6/23/2004	RBNU	Red-breasted Nuthatch	50	Auditory
T1B1	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T1B1	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T1B1	6/23/2004	GCKI	Golden-crowned Kinglet	50	Auditory
T1B1	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T1B1	6/23/2004	EVGR	Evening Grosbeak	50	Auditory
T1B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T1B1	6/23/2004	GCKI	Golden-crowned Kinglet	100	Auditory
T1B1	6/23/2004	BCCH	Black-capped Chickadee	100	Auditory
T1B1	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T1B1	6/23/2004	AMGO	American Goldfinch	100	Auditory
T1B1	6/23/2004	RBNU	Red-breasted Nuthatch	100	Auditory
T1B1	6/23/2004	EVGR	Evening Grosbeak	100	Auditory
T1B1	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T3B1	6/23/2004	CHSP	Chipping Sparrow	30	Auditory
T3B1	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T3B1	6/23/2004	AMRO	American Robin	50	Auditory
T3B1	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T3B1	6/23/2004	HETH	Hermit Thrush	100	Auditory
T3B1	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T3B1	6/23/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T3B1	6/23/2004	YSFL	Yellow-shafted (Northern) Flicker	150	Auditory
T3B1	6/23/2004	AMRO	American Robin	150	Auditory
T1B2	6/23/2004	AMRO	American Robin	50	Flyover
T1B2	6/23/2004	YSFL	Yellow-shafted (Northern) Flicker	50	Auditory
T1B2	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T1B2	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T1B2	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T1B2	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T1B2	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T1B2	6/23/2004	BCCH	Black-capped Chickadee	150	Auditory
T1B2	6/23/2004	RBNU	Red-breasted Nuthatch	180	Auditory
T1B2	6/23/2004	CHSP	Chipping Sparrow	180	Auditory
T1B2	6/23/2004	HETH	Hermit Thrush	220	Auditory
T1B2	6/23/2004	WTSP	White-throated Sparrow	150	Auditory
T2B2	6/23/2004	VESP	Vesper Sparrow	50	Visual
T2B2	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T2B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T2B2	6/23/2004	AMGO	American Goldfinch	100	Auditory
T2B2	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T2B2	6/23/2004	YRWA	Yellow-rumped Warbler	150	Auditory
T2B2	6/23/2004	NAWA	Nashville Warbler	150	Auditory
T2B2	6/23/2004	HETH	Hermit Thrush	200	Auditory
T2B2	6/23/2004	YRWA	Yellow-rumped Warbler	150	Auditory
T3B2	6/23/2004	CHSP	Chipping Sparrow	50	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T3B2	6/23/2004	BLJA	Blue Jay	100	Auditory
T3B2	6/23/2004	CORA	Common Raven	100	Flyover
T3B2	6/23/2004	HETH	Hermit Thrush	100	Auditory
T3B2	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T3B2	6/23/2004	NAWA	Nashville Warbler	150	Auditory
T3B2	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T4B2	6/23/2004	SCJU	Slate-colored (Dark eyed) Junco	15	Auditory
T4B2	6/23/2004	NAWA	Nashville Warbler	50	Auditory
T4B2	6/23/2004	GCKI	Golden-crowned Kinglet	50	Auditory
T4B2	6/23/2004	YRWA	Yellow-rumped Warbler	50	Auditory
T4B2	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T4B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T4B2	6/23/2004	BCCH	Black-capped Chickadee	100	Auditory
T4B2	6/23/2004	NAWA	Nashville Warbler	100	Auditory
T4B2	6/23/2004	AMRO	American Robin	100	Auditory
T4B2	6/23/2004	WTSP	White-throated Sparrow	100	Auditory
T4B2	6/23/2004	HETH	Hermit Thrush	150	Auditory
T4B3	6/23/2004	CEDW	Cedar Waxwing	30	Flyover
T4B3	6/23/2004	CEDW	Cedar Waxwing	30	Flyover
T4B3	6/23/2004	CHSP	Chipping Sparrow	50	Auditory
T4B3	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T4B3	6/23/2004	CHSP	Chipping Sparrow	100	Auditory
T4B3	6/23/2004	BRCR	Brown Creeper	100	Auditory
T4B3	6/23/2004	BHVI	Blue-headed Vireo	100	Auditory
T4B3	6/23/2004	HETH	Hermit Thrush	150	Auditory
T4B3	6/23/2004	AMRO	American Robin	150	Auditory
T4B3	6/23/2004	OVEN	Ovenbird	200	Auditory
T4B3	6/23/2004	HETH	Hermit Thrush	150	Auditory
T4B3	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T3B3	6/23/2004	VESP	Vesper Sparrow	100	Auditory
T3B3	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T3B3	6/23/2004	EABL	Eastern Bluebird	120	Auditory
T3B3	6/23/2004	OVEN	Ovenbird	150	Auditory
T3B3	6/23/2004	BRTH	Brown Thrasher	100	Auditory
T2B3	6/23/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T2B3	6/23/2004	SCJU	Slate-colored (Dark eyed) Junco	100	Auditory
T2B3	6/23/2004	AMGO	American Goldfinch	100	Auditory
T2B3	6/23/2004	BHVI	Blue-headed Vireo	230	Auditory
T2B3	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T2B3	6/23/2004	BHVI	Blue-headed Vireo	300	Auditory
T1B3	6/23/2004	NAWA	Nashville Warbler	100	Visual
T1B3	6/23/2004	WTSP	White-throated Sparrow	100	Visual
T1B3	6/23/2004	YRWA	Yellow-rumped Warbler	100	Auditory
T1B3	6/23/2004	VESP	Vesper Sparrow	150	Auditory
T1B3	6/23/2004	AMRO	American Robin	150	Auditory

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Site	Date	AOU Code	Common Name	Distance(m)	Detection
T1B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	0	Visual
T1B3	10/9/2004	AMRO	American robin	60	Auditory
T1B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B3	10/9/2004	BCCH	Black-capped chickadee	30	Auditory
T1B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T1B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T1B3	10/9/2004	WTSP	White throated sparrow	30	Auditory
T1B3	10/9/2004	WTSP	White throated sparrow	20	Auditory
T1B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T1B3	10/9/2004	WTSP	White throated sparrow	50	Auditory
T1B3	10/9/2004	WTSP	White throated sparrow	40	Auditory
T1B3	10/9/2004	WTSP	White throated sparrow	40	Auditory
T2B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	60	Auditory
T2B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	60	Auditory
T2B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T3B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T3B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T3B3	10/9/2004	WTSP	White throated sparrow	60	Auditory
T3B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T3B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T4B3	10/9/2004	BCCH	Black-capped chickadee	30	Visual
T4B3	10/9/2004	BCCH	Black-capped chickadee	40	Auditory
T4B3	10/9/2004	BCCH	Black-capped chickadee	10	Auditory
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T4B3	10/9/2004	BCCH	Black-capped chickadee	50	Auditory
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	60	Visual
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	60	Visual
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T4B3	10/9/2004	RBNU	Red-breasted nuthatch	20	Auditory
T4B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	8	Auditory
T4B3	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T4B3	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T4B3	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	NOGO	Northern goshawk	80	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	60	Visual

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T2B2	10/9/2004	CAGO	Canada goose	200	Auditory
T2B2	10/9/2004	RTHA	Red tail hawk	50	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T1B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	0	Visual
T1B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T1B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T1B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T2B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T2B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T2B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	5	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	25	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	BLJA	Blue jay	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T2B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	50	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	40	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	40	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T1B1	10/9/2004	GCKI	Golden-crowned kinglet	5	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	30	Auditory
T1B1	10/9/2004	BCCH	Black-capped chickadee	40	Auditory
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Auditory
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Visual
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	10	Auditory
T1B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Auditory
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T1B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	WTSP	White throated sparrow	10	Auditory
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	BRCR	Brown creeper	10	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T3B1	10/9/2004	YRWA	Yellow-rumped warbler	20	Auditory
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	5	Visual
T3B1	10/9/2004	RCKI	Ruby-crowned kinglet	10	Auditory
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T3B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T3B1	10/9/2004	RCKI	Ruby-crowned kinglet	20	Auditory
T3B2	10/9/2004	YRWA	Yellow-rumped warbler	20	Auditory
T3B2	10/9/2004	YRWA	Yellow-rumped warbler	40	Auditory
T3B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	2	Visual
T4B2	10/9/2004	AMRO	American robin	20	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	5	Visual
T4B2	10/9/2004	AMRO	American robin	40	Auditory
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T4B1	10/9/2004	BCCH	Black-capped chickadee	30	Auditory
T4B1	10/9/2004	BLJA	Blue jay	40	Visual
T4B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T7B1	10/9/2004	BCCH	Black-capped chickadee	40	Auditory
T7B1	10/9/2004	BCCH	Black-capped chickadee	50	Auditory
T7B1	10/9/2004	SWTH	Swainson's thrush	20	Visual
T7B1	10/9/2004	AMCR	American crow	100	Visual
T6B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T5B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Visual
T5B1	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	5	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	5	Visual
T5B3	10/9/2004	YRWA	Yellow-rumped warbler	5	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	5	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	2	Auditory
T5B3	10/9/2004	WTSP	White throated sparrow	20	Auditory
T5B3	10/9/2004	BCCH	Black-capped chickadee	30	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	25	Auditory
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	25	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	15	Visual

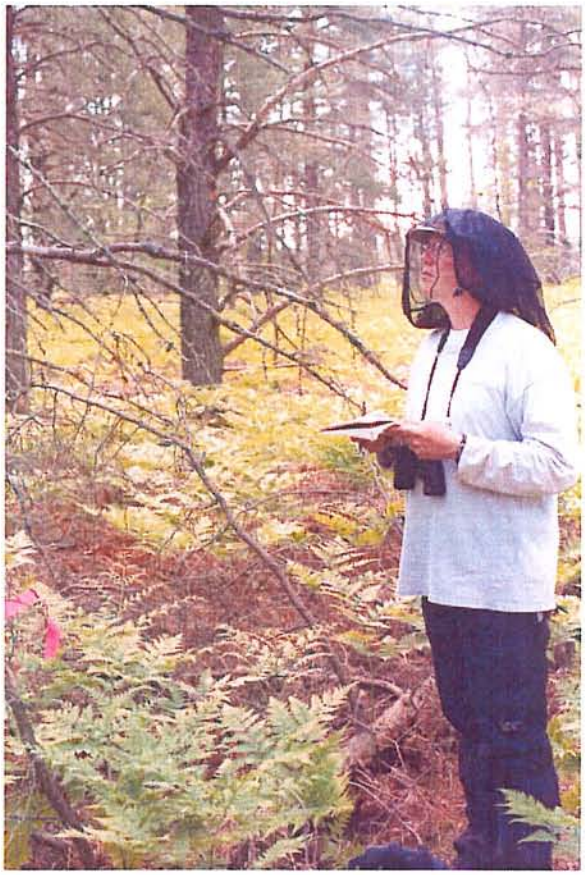
Site	Date	AOU Code	Common Name	Distance(m)	Detection
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T6B3	10/9/2004	BCCH	Black-capped chickadee	2	Visual
T6B3	10/9/2004	BCCH	Black-capped chickadee	10	Auditory
T6B3	10/9/2004	GRAJ	Gray jay	9	Visual
T7B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T7B3	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T7B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T7B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T7B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T7B2	10/9/2004	CORA	Common raven	30	Visual
T7B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	5	Visual
T6B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T6B2	10/9/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T6B2	10/10/2004	DOWO	Downy woodpecker	100M	Auditory
T6B2	10/10/2004	EVGR	Evening grosbeak	100M	Auditory
T6B2	10/10/2004	AMRO	American robin	50	Auditory
T6B2	10/10/2004	BLJA	Blue jay	30	Auditory
T6B2	10/10/2004	PISI	Pine siskin	30	Auditory
T6B2	10/10/2004	WTSP	White throated sparrow	50	Auditory
T6B2	10/10/2004	BLJA	Blue jay	40	Auditory
T6B2	10/10/2004	BCKI	Golden-crowned kinglet	10	Auditory
T7B2	10/10/2004	RBNU	Red-breasted nuthatch	20	Auditory
T7B2	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T7B2	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T7B2	10/10/2004	EVGR	Evening grosbeak	25	Auditory
T7B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	15	Auditory
T7B2	10/10/2004	BLJA	Blue jay	50	Auditory
T7B2	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T7B2	10/10/2004	EVGR	Evening grosbeak	40	Auditory
T7B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T7B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T7B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T7B2	10/10/2004	AMRO	American robin	20	Auditory
T7B3	10/10/2004	BLJA	Blue jay	30	Auditory
T7B3	10/10/2004	BLJA	Blue jay	50	Auditory
T7B3	10/10/2004	EVGR	Evening grosbeak	50	Auditory
T7B3	10/10/2004	BLJA	Blue jay	40	Auditory
T7B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T7B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T7B3	10/10/2004	AMRO	American robin	40	Auditory
T7B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T7B3	10/10/2004	CORO	Common raven	100	Auditory
T7B3	10/10/2004	CORO	Common raven	100	Auditory
T7B3	10/10/2004	AMRO	American robin	50	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T7B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T7B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T6B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T6B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T6B3	10/10/2004	WTSP	White throated sparrow	30	Auditory
T6B3	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T6B3	10/10/2004	HAWO	Hairy woodpecker	100	Auditory
T6B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T6B3	10/10/2004	WTSP	White throated sparrow	20	Auditory
T6B3	10/10/2004	BLJA	Blue jay	60	Auditory
T6B3	10/10/2004	BLJA	Blue jay	50	Auditory
T6B3	10/10/2004	BLJA	Blue jay	50	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T5B3	10/10/2004	BLJA	Blue jay	30	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	0	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Visual
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B3	10/10/2004	BCCH	Black-capped chickadee	10	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B3	10/10/2004	BLJA	Blue jay	100	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B3	10/10/2004	PUFI	Purple finch	50	Auditory
T5B3	10/10/2004	BLJA	Blue jay	40	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T5B3	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T5B3	10/10/2004	BLJA	Blue jay	50	Auditory
T5B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T5B3	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T5B3	10/10/2004	AMRO	American robin	40	Auditory
T5B3	10/10/2004	BLJA	Blue jay	60	Auditory
T5B2	10/10/2004	GCKI	Golden-crowned kinglet	10	Auditory
T5B2	10/10/2004	GCKI	Golden-crowned kinglet	20	Auditory
T5B2	10/10/2004	BOCH	Boreal chickadee	30	Auditory
T5B2	10/10/2004	EVGR	Evening grosbeak	30	Auditory
T5B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B2	10/10/2004	BLJA	Blue jay	40	Auditory
T5B2	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T5B2	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T5B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B2	10/10/2004	GCKI	Golden-crowned kinglet	30	Auditory
T5B2	10/10/2004	AMRO	American robin	40	Auditory
T5B2	10/10/2004	GCKI	Golden-crowned kinglet	10	Auditory
T5B2	10/10/2004	BCCH	Black-capped chickadee	10	Auditory
T5B2	10/10/2004	GCKI	Golden-crowned kinglet	10	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T5B2	10/10/2004	BCCH	Black-capped chickadee	15	Auditory
T5B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	20	Auditory
T5B1	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T5B1	10/10/2004	AMRO	American robin	80	Auditory
T5B1	10/10/2004	CORA	Common raven	100	Auditory
T5B1	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T5B1	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T5B1	10/10/2004	WTSP	White throated sparrow	20	Auditory
T5B1	10/10/2004	AMRO	American robin	40	Auditory
T5B1	10/10/2004	AMRO	American robin	50	Auditory
T6B1	10/10/2004	AMRO	American robin	30	Visual
T6B1	10/10/2004	BCCH	Black-capped chickadee	15	Visual
T6B1	10/10/2004	DOWO	Downy woodpecker	30	Auditory
T6B1	10/10/2004	BLJA	Blue jay	100	Auditory
T6B1	10/10/2004	PISI	Pine siskin	50	Auditory
T6B1	10/10/2004	RBNU	Red-breasted nuthatch	20	Visual
T6B1	10/10/2004	RBNU	Red-breasted nuthatch	20	Visual
T6B1	10/10/2004	HAWO	Hairy woodpecker	100	Auditory
T6B1	10/10/2004	BCCH	Black-capped chickadee	20	Visual
T6B1	10/10/2004	EVGR	Evening grosbeak	60	Auditory
T6B1	10/10/2004	BLJA	Blue jay	80	Auditory
T6B1	10/10/2004	AMRO	American robin	60	Auditory
T6B1	10/10/2004	PLWO	Pileated woodpecker	100	Auditory
T6B1	10/10/2004	EVGR	Evening grosbeak	60	Auditory
T6B1	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T7B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T7B1	10/10/2004	AMRO	American robin	50	Auditory
T7B1	10/10/2004	HAWO	Hairy woodpecker	100	Auditory
T7B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T7B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T7B1	10/10/2004	AMRO	American robin	50	Auditory
T7B1	10/10/2004	HAWO	Hairy woodpecker	60	Auditory
T7B1	10/10/2004	EVGR	Evening grosbeak	80	Auditory
T7B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T4B1	10/10/2004	AMRO	American robin	40	Auditory
T4B1	10/10/2004	AMCR	American crow	100	Auditory
T4B1	10/10/2004	AMRO	American robin	100	Auditory
T4B1	10/10/2004	SPGB	Spruce grouse	100	Visual
T4B1	10/10/2004	AMRO	American robin	50	Auditory
T4B1	10/10/2004	AMRO	American robin	20	Auditory
T4B2	10/10/2004	RBNU	Red-breasted nuthatch	25	Auditory
T4B2	10/10/2004	RBNU	Red-breasted nuthatch	25	Auditory
T4B2	10/10/2004	AMRO	American robin	40	Auditory
T4B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T4B2	10/10/2004	AMRO	American robin	60	Auditory
T4B2	10/10/2004	YRWA	Yellow-rumped warbler	30	Auditory
T4B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T4B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	10	Auditory
T4B2	10/10/2004	AMRO	American robin	20	Auditory

Site	Date	AOU Code	Common Name	Distance(m)	Detection
T4B2	10/10/2004	YRWA	Yellow-rumped warbler	30	Visual
T4B2	10/10/2004	BLJA	Blue jay	50	Auditory
T3B2	10/10/2004	BLJA	Blue jay	50	Auditory
T3B2	10/10/2004	BLJA	Blue jay	60	Visual
T3B2	10/10/2004	BLJA	Blue jay	100	Auditory
T3B2	10/10/2004	DOWO	Downy woodpecker	40	Visual
T3B2	10/10/2004	BLJA	Blue jay	100	Auditory
T3B2	10/10/2004	BLJA	Blue jay	60	Visual
T3B1	10/10/2004	BCCH	Black-capped chickadee	20	Auditory/Visual
T3B1	10/10/2004	YRWA	Yellow-rumped warbler	80	Visual
T3B1	10/10/2004	BCCH	Black-capped chickadee	10	Auditory/Visual
T3B1	10/10/2004	GCKI	Golden-crowned kinglet	10	Auditory
T3B1	10/10/2004	WTSP	White throated sparrow	20	Auditory
T3B1	10/10/2004	GCKI	Golden-crowned kinglet	10	Auditory
T1B1	10/10/2004	BCCP	Black-capped chickadee	15	Auditory
T1B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B1	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B1	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T2B1	10/10/2004	YSFL	Yellow-shafted flicker	50	Auditory
T2B1	10/10/2004	BCCH	Black-capped chickadee	15	Auditory
T2B1	10/10/2004	BCCH	Black-capped chickadee	15	Auditory
T2B1	10/10/2004	BCCH	Black-capped chickadee	15	Auditory
T1B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	30	Auditory
T1B2	10/10/2004	BCCH	Black-capped chickadee	20	Auditory
T1B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	25	Visual
T2B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Visual
T2B2	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Visual
T2B2	10/10/2004	YRWA	Yellow-rumped warbler	50	Visual
T2B2	10/10/2004	YRWA	Yellow-rumped warbler	50	Visual
T4B3	10/10/2004	CORA	Common raven	150	Visual
T4B3	10/10/2004	CORA	Common raven	150	Visual
T4B3	10/10/2004	DOWO	Downy woodpecker	50	Auditory
T4B3	10/10/2004	BCCH	Black-capped chickadee	50	Auditory
T3B3	10/10/2004	BCCH	Black-capped chickadee	20	Visual
T3B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	40	Auditory
T3B3	10/10/2004	BCCH	Black-capped chickadee	30	Auditory
T3B3	10/10/2004	BCCH	Black-capped chickadee	5	Visual
T2B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T2B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory
T2B3	10/10/2004	YRWA	Yellow-rumped warbler	50	Visual
T1B3	10/10/2004	BCCH	Black-capped chickadee	30	Auditory/Visual
T1B3	10/10/2004	BCCH	Black-capped chickadee	40	Auditory
T1B3	10/10/2004	BCCH	Black-capped chickadee	5	Visual
T1B3	10/10/2004	SCJU	Slate-colored (dark eyed) junco	50	Auditory







APPENDIX B3

Small Mammal Data
Photographs

SMALL MAMMAL SURVEY, MAY 2004

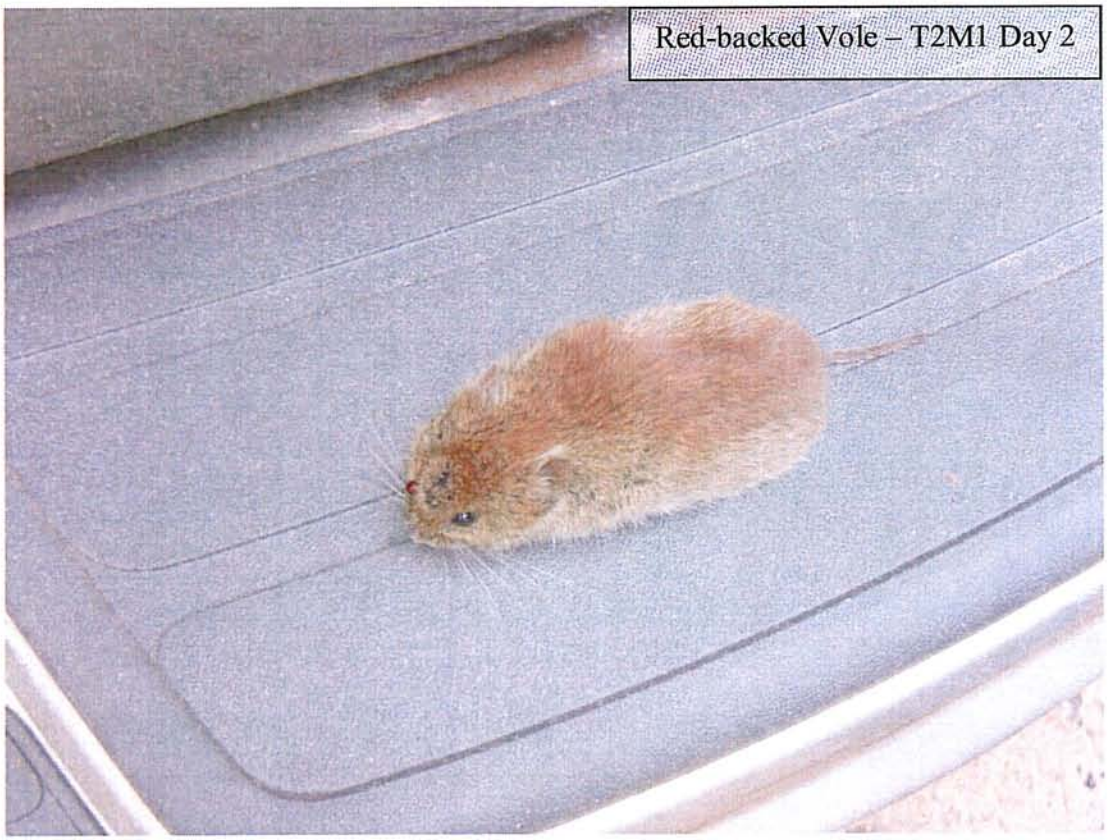
TRANSECT	TRAP SITE	Day 1							
		Sm. Mouse Trap 1		Sm. Mouse Trap 2		Lg Rat Trap		Live Trap	
		Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name
1	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
2	1	Tripped, no capture, bait gone		0	0	0	0	Deer mouse	*Peromyscus maniculatus*
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
4	1	Tripped, no capture		0	0	0	0	0	0
	2	Eastern chipmunk	*Tamias striatus*	0	0	Eastern chipmunk	*Tamias striatus*	Tripped, no capture	
	3	0	0	0	0	0	0	0	0
5	1	Bait gone, not tripped		0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
7	1	0	0	0	0	Tripped, no capture		0	0
	2	0	0	0	0	0	0	0	0
	3	Red-backed vole	*Clethrionomys gapperi*	0	0	0	0	Tripped, no capture	

TRANSECT	TRAP SITE	Day 2							
		Sm. Mouse Trap 1		Sm. Mouse Trap 2		Lg Rat Trap		Live Trap	
		Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name
1	1	Deer mouse	*Peromyscus maniculatus*	0	0	0	0	Eastern chipmunk	*Tamias striatus*
	2 (Traps Pulled)	0	0	0	0	0	0	0	0
	3 (Traps Pulled)	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	0	Red-backed vole	*Clethrionomys gapperi*
	2 (Traps Pulled)	0	0	0	0	Deer mouse	*Peromyscus maniculatus*	0	0
	3 (Traps Pulled)	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	Deer mouse	*Peromyscus maniculatus*
	3 (Traps Pulled)	0	0	0	0	Tripped, no capture		0	0
4	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	Red-backed vole	*Clethrionomys gapperi*
	3 (Traps Pulled)	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	Bait Gone, not tripped		Tripped, no capture	
7	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0

TRANSECT	TRAP SITE	Day 3							
		Sm. Mouse Trap 1		Sm. Mouse Trap 2		Lg Rat Trap		Live Trap	
		Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name
1	1	0	0	0	0	0	0	Eastern chipmunk	*Tamias striatus*
	2	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled
	3	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled
2	1	Tripped, no capture		0	0	0	0	0	0
	2	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled
	3	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled
3	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled
4	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	Tripped, no capture		0	0
	3	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled	trap pulled
5	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
7	1	0	0	0	0	0	0	0	0
	2	Tripped, no capture, bait gone		0	0	0	0	Deer mouse	*Peromyscus maniculatus*
	3	0	0	0	0	Eastern chipmunk	*Tamias striatus*	Red-backed vole	*Clethrionomys gapperi*



Deer Mouse – T2M1 Day 1



Red-backed Vole – T2M1 Day 2


Deer mouse – T3M2 Day 2

APPENDIX B4

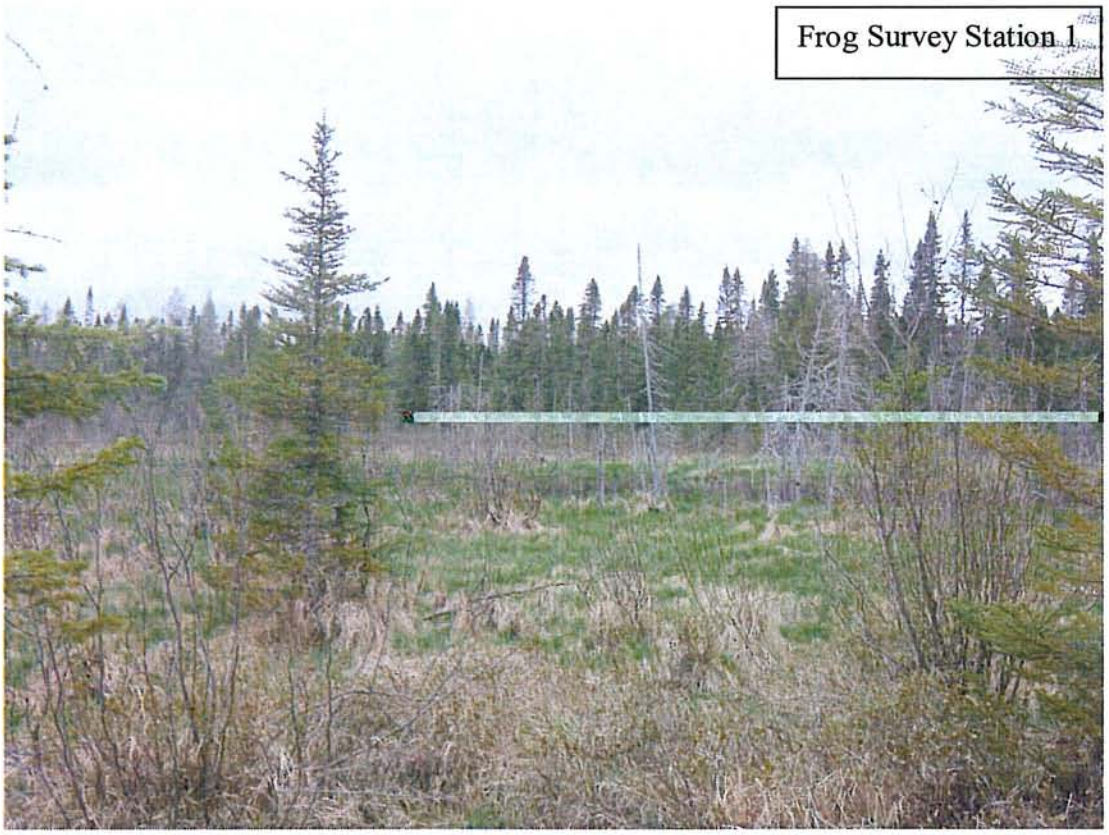
Frog and Toad Data
Photographs

FROG AND TOAD SURVEY, MAY 2004

SURVEY SITE	CATEGORY	SPECIES		COUNT	DATE AND TEMPERATURE	SITE DESCRIPTION
		Common Name	Scientific Name			
1	3	Northern spring peeper	*Pseudacris crucifer*	Full Chorus	5/20/2004; 1:50 PM Above 50° F (10°C)	Between Transects 5 and 6 near southern crossing of Salmon Trout River at Transect 5. Beaver Pond and slow meandering stream surrounded by sedge meadow. **FROG Photo 1**
2	3	Northern spring peeper	*Pseudacris crucifer*	Full Chorus	5/20/2004; 3:30 PM Above 50° F (10°C)	On Transect 7 at northern crossing of Salmon Trout River. Beaver Pond and slow meandering stream surrounded by sedge meadow. **FROG Photo 2**
3	3	Northern spring peeper	*Pseudacris crucifer*	Full Chorus	5/20/2004; 5:40 PM Above 50° F (10°C)	Between Transects 5 and 6 near northern crossing of Salmon Trout River at Transect 5. Beaver Pond and slow meandering stream surrounded by sedge meadow. **FROG Photo 3**
	1	Green frog	*Rana clamitans*	1		
	2	Western chorus frog	*Pseudacris triseriata triseriata*	10		

FROG AND TOAD SURVEY, JUNE 2004

SURVEY SITE	CATEGORY	SPECIES		COUNT	DATE AND TEMPERATURE	SITE DESCRIPTION
		Common Name	Scientific Name			
1	1	Green frog	*Rana clamitans melanota*	6	6/19/04; 12:15 PM; 68°F (20°C) Sun, Wind	Between Transects 5 and 6 near southern crossing of Salmon Trout River at Transect 5. Beaver Pond and slow meandering stream surrounded by sedge meadow. **FROG Photo 1**
	1	Mink Frog	*Rana septentrionalis*	5		
	1	Gray Tree Frog	*Hyla versicolor and Hyla chrysoscelis*	1		
2	1	Green frog	*Rana clamitans*	2	6/20/2004; 11:30 AM; 68°F (20°C) Sun, Wind.	Between Transects 5 and 6 near southern crossing of Salmon Trout River at Transect 5. Beaver Pond and slow meandering stream surrounded by sedge meadow. **FROG Photo 3**
3	1	None Heard	*None Heard*	0	6/18/2004; 7:45 PM; 58°F (14.5°C), Windy	On Transect 7 at northern crossing of Salmon Trout River. Beaver Pond and slow meandering stream surrounded by sedge meadow. **FROG Photo 2**


Frog Survey Station 1


Frog Survey Station 2


Frog Survey Station 3

APPENDIX B5

Additional Transect Wildlife Data

TRANSECT DATA MAY 2004

TRANSECT	SPECIES NOTED		NUMBER	NOTES
	Common Name	Scientific Name		
1	Common raven	*Corvus corax*	1	Seen or heard
	White-throated sparrow	*Zonotrichia albicollis*	1	Seen or heard
	Chipping sparrow	*Spizella passerina*	1	Seen or heard
	Eastern chipmunk	*Tamias striatus*	1	Seen or heard
	Song sparrow	*Melospiza melodia*	1	Seen or heard
	Woodpecker	Unknown	1	Heard pecking, not seen, no call
2	Common raven	*Corvus corax*	2	Seen or heard
	Northern flicker	*Colaptes auratus*	2	Seen or heard
	Eastern tohee	*Pipilo erythrophthalmus*	1	Seen or heard
	Blue jay	*Cyanocitta cristata*	1	Seen or heard
	Chipping sparrow	*Spizella passerina*	3	Seen or heard
	Pine warbler	*Dendroica pinus*	3	Seen or heard
	Sandhill crane	*Grus canadensis*	1	Heard at distance
	Long-eared owl	*Asio otus*	1	Seen or heard
3	Blue jay	*Cyanocitta cristata*	1	Seen or heard
	Pileated wood pecker	*Dryocopus pileatus*	1	Holes from feeding present
4	White-throated sparrow	*Zonotrichia albicollis*	2	Seen or heard
	Red squirrel	*Tamiasciurus hudsonicus*	2	Shelled cone piles present
	Pine warbler	*Dendroica pinus*	4	Seen or heard
5	Warbler	Unknown	1	Seen or heard
	Ruffed grouse	*Bonasa umbellus*	1	Seen or heard
	Coyote	*Canis latrans*	1	Scat Present
	Slate colored junco	*Junco hyemalis*	8	Seen or heard
	Eastern yellow-rumped warbler	*Dendroica coronata*	1	Seen or heard
	Blue jay	*Cyanocitta cristata*	2	Seen or heard
	Song Sparrow	*Melospiza melodia*	1	Seen or heard
	American redstart	*Setophaga ruticilla*	1	Seen or heard
	Hermit thrush	*Catharus guttatus*	1	Seen or heard
	Chestnut-shouldered Petronia	*Petronia xanthocollis*	1	Seen or heard
	Red squirrel	*Tamiasciurus hudsonicus*	15	Seen or heard
6	Swansons thrush	*Catharus ustulatus*	15	Seen or heard
	Eastern yellow-rumped warbler	*Dendroica coronata*	3	Seen or heard
	Hermit thrush	*Catharus guttatus*	1	Seen or heard
	White tailed deer	*Odocoileus virginianus*	numerous	Pellets, tracks and buck rubs present
	White-throated sparrow	*Zonotrichia albicollis*	8	Seen or heard
	American beaver	*Castor canadensis*	numerous	Cuttings and ponds
	Red squirrel	*Tamiasciurus hudsonicus*	numerous	Shelled cone piles present
	Winter wren	*Troglodytes troglodytes*	2	Seen or heard
	Moose	*Alces alces*	6	Pellets present

7	Northern spring peeper	*Pseudacris crucifer*	numerous	Chorus heard at distance
	White-throated sparrow	*Zonotrichia albicollis*	4	Seen or heard
	Moose	*Alces alces*	2	Pellets present
	White tailed deer	*Odocoileus virginianus*	2	Seen or heard
	Swansons thrush	*Catharus ustulatus*	1	Seen or heard
	Red squirrel	*Tamiasciurus hudsonicus*	numerous	Shelled cone piles present
	Oven bird	*Seiurus aurocapillus*	1	Seen or heard
	Pileated wood pecker	*Dryocopus pileatus*	4	Holes from feeding present
	American beaver	*Castor canadensis*	numerous	Cuttings, ponds, slide

numerous = greater than 15