

# **PROPOSED LYNX MONITORING PROTOCOL**

**PROPONENT**  
**BLUEARTH RENEWABLES INC.**

**PROJECT**  
**EAST BAY HILLS WIND POWER PROJECT**

**LOCATION**  
**CAPE BRETON**  
**NOVA SCOTIA**

**MAY 24, 2012**



McCallum Environmental Ltd.

[www.mccallumenvironmental.com](http://www.mccallumenvironmental.com)

## **Contents**

1	Introduction.....	- 3 -
2	Background.....	- 3 -
3	Objectives .....	- 4 -
4	Methodology.....	- 5 -
4.1	Determination of Habitat Presence .....	- 5 -
4.2	Transects.....	- 6 -
4.3	Snowshoe hare pellet counts .....	- 7 -
4.4	Recording.....	- 7 -
4.5	Lynx snow tracking.....	- 8 -
4.5.1	Background.....	- 8 -
4.5.2	Tracks.....	- 8 -
4.5.3	Surveying.....	- 9 -
4.5.4	Recording.....	- 10 -
4.6	Monitoring Timeline .....	- 10 -
5	References.....	- 10 -

## **Appendices**

Appendix I – Snowshoe Hare Pellet Count Form

Appendix II – Track ID Guidelines

Appendix III – Track Observation Form

## 1 Introduction

BluEarth is proposing to construct and operate a wind power project with the capacity to generate up to 50 megawatts ('MW') of wind power renewable energy on the East Bay hills in Cape Breton, Nova Scotia. This current proposal is referred to as the East Bay Hills Wind Project (the 'Project'). The Project is expected to generate power from 31 wind tower generators (WTGs) each generating approximately 1.6 MW.

Following numerous discussion with the Nova Scotia Department of Natural Resources (DNR), McCallum Environmental became aware that lynx may be expected to inhabit the Project area. In an effort to determine if lynx are present, and in what quantity, DNR requested that McCallum Environmental propose a monitoring program for lynx at the Project. This document is in response to that request.

Please note that upon acceptance of the monitoring protocol/study by DNR, the study will commence at BluEarth Discretion based on results of the upcoming RFP for renewable power.

## 2 Background

Canada lynx (*Lynx canadensis*), hereafter referred to as lynx, were designated "endangered" in 2002 under the *Nova Scotia Endangered Species Act* and are listed as 'Red' under Nova Scotia Department of Natural Resources' (NSDNR) General Status Ranks of Wild Species. Although a recent COSEWIC estimate (2001) listed lynx as 'Not at Risk' across Canada, this mammal been extirpated from mainland Nova Scotia, with the exception of rare sightings, associated with population lows of their primary prey, snowshoe hare (*Lepus americanus*) (Parker, 2001).

Lynx are known to be found in only three areas on Cape Breton Island: Cape Breton Highlands, Boisdale Hills, East Bay Hills, and South Mountain (Nova Scotia Lynx Recovery Team, 2007). The proposed East Bay Hills Wind Power Project (the 'Project'), bordering on Cape Breton and Richmond counties, is associated with an historic subpopulation of lynx, and there may still be lynx using this habitat. Recent surveys have estimated there to be a small sub-population of Canada lynx within the East Bay Hills region (Nova Scotia Lynx Recovery Team, 2007).

Total numbers of lynx on Cape Breton Island may vary from approximately 475-525 (10-11 lynx/100 km<sup>2</sup>) during cyclical highs, and 95-140 (2-3 lynx/100 km<sup>2</sup>) during population lows (Parker, 2001).

Lynx are closely tied to its preferred prey, snowshoe hare. The hare follows a fairly regular 10-year boom and bust cycle, lasting 1 to 2 years (Poole, 2003). Although more geographically north than populations in the United States, the Cape Breton lynx populations are characteristic of the southern range of the species. Southern populations, such as those studied in northern Maine, generally experience a low 2 to 3 years after the hare's cyclical collapse (O'Donoghue, Boutin, Krebs & Hofer, 1997; Parker, 2001;

Poole, 2003). The last documented peak in the Cape Breton lynx population was the 1999/2000 season, with lows between 1992 and 1994 (Parker, 2001). Following accepted 10-year trends, lynx should have experienced a high in 2009/2010 and should now be in a low trough, from 2012 until 2014. These trends are important to keep in mind during monitoring of the Project area for the 2012/2013 season.

In times of low hare abundance, common prey items for lynx in Nova Scotia include Red Squirrels (*Tamiasciurus hudsonicus*), Ruffed Grouse (*Bonasa umbellus*), and occasionally other birds and mammals. During these lows, Eastern coyote (*Canis latrans*) and Bobcat (*Lynx rufus*) may compete with lynx for prey. Recent estimates have indicated a population growth of these carnivores on Cape Breton Island, and some research, in addition to conversations with DNR, suggests that roads may facilitate their distribution (Parker, 2001) into lynx habitat.

Lynx were listed as a threatened species in 2000 under the United States *Endangered Species Act*, and this listing has resulted many recovery plans and studies that are well suited for a greater understanding of this species in its Cape Breton range (see Jakubas & Ritchie, 2008; Nordstrom, 2000; Organ et al., 2008). Lynx have been monitored using bait stations, hare snares, triggered cameras, tracking surveys, GPS and radio-collar tracking, carcass collection, monitoring snowshoe hare populations, and soliciting reports from local trappers (Nova Scotia Lynx Recovery Team, 2007). However, their elusive nature and low population densities make monitoring difficult and expensive, particularly with radio telemetry techniques (Jakubas & Ritchie, 2008).

### 3 Objectives

The first objective of this monitoring protocol would be to determine the presence of lynx within the Project area. This objective will be achieved through an assessment of the numbers and distribution of lynx throughout the Project area, as well as any observations of its preferred prey, snowshoe hare. Therefore, this first phase of monitoring, conducted in the summer months of 2012, will:

1. Create transects based on preferred habitat;
2. Complete transect assessments for snowshoe hare pellet counts, and/or visual evidence of lynx in the area.

The second objective of the monitoring protocol will be to document locations, movements, and observations of lynx and snowshoe hare in the Project area. Continued through winter season of 2012/2013, monitoring will further assess the presence of lynx in the Project area, while documenting snowshoe hare location and movement. Winter monitoring will focus on snow tracking for lynx, as well as pellet counts for snowshoe hare.

Therefore, the overall objective of this monitoring protocol will be to:

1. Determine the presence of Lynx and its main prey, snowshoe hare, within the project area.
2. Document species locations, movements, and composition;
3. Inform local authorities about the observable characteristics/distribution of the lynx.

#### **4 Methodology**

Field investigations will take place during the summer 2012 summer and winter 2012/2013 winter seasons.

1. Summer monitoring is focused on snowshoe hare pellet counts, to monitor lynx populations (Krebs et al., 1987, 2001; Poole, 2003). Pellet counts will gauge the number of snowshoe hare to determine if the Project area offers suitable prey for lynx.
2. Winter monitoring will continue hare pellet counts along with snow tracking for lynx, to estimate the number of lynx moving through the Project area and their habitat distribution. Snow tracking has been documented as an effective and inexpensive lynx monitoring technique, compared to baited camera and hare-trap methods (Crowley, 2006). Both winter and summer monitoring will follow the same transects.

In both instances (1 & 2), if known trails or areas suspected of higher use are identified, wildlife cameras may be deployed to capture images, and assist in determination of lynx use and numbers.

##### **4.1 Determination of Habitat Presence**

Lynx has been documented at high densities in Spruce (*Picea spp.*) and Balsam fir (*Abies balsamifera*) regenerating forests, 16-30 years old (Nova Scotia Lynx Recovery Team, 2007). Snowshoe hare reach their highest numbers in dense, immature forests, also preferably in spruce (*Picea spp.*) and Balsam fir (*Abies balsamifera*) stands (Orr & Dodds, 1982). Radio-collared lynx in northern Maine preferred higher percentage cover, coarse woody debris, and blown-down trees with roots intact when selecting denning sites (Organ et al., 2008).

GIS mapping, using NSDNR's Forest Inventory Current Forest Data (NSDNR, 2011) will analyse the Project area for preferred lynx and snowshoe hare habitat, to optimize monitoring effectiveness. While some components of this preferred habitat can be analysed through desktop surveys, as a result of recent, and continued logging within the Project Area, the Project area will be verified on foot for the above characteristics prior to finalizing the lynx monitoring protocol.

As the preferred habitat for lynx and snowshoe hare are spruce-fir forests (Poole, 2003), a query in ArcGIS will prioritize sections of the Project areas for monitoring purposes. The fields SP1, SP2, HEIGHT and CRCNL will be used to select for habitat.

**Table 1: Forest Inventory Fields used for Habitat Queries**

Field Name	Description	Query	Rationale
SP1	Main species type	RS, WS, BS, or XS	<ul style="list-style-type: none"> <li>• Cape Breton Island lynx favoured a spruce-fir forest (Parker, 1983)</li> </ul>
SP2	Second species type	BF	<ul style="list-style-type: none"> <li>• Cape Breton Island lynx favoured a spruce-fir forest (Parker, 1983)</li> </ul>
Height	First story height (m)	<=12	<ul style="list-style-type: none"> <li>• Higher snowshoe hare densities in stands less than 12 m (Orr &amp; Dodds, 1982)</li> </ul>
CRNCL	First story crown closure (%)	<=60	<ul style="list-style-type: none"> <li>• Higher snowshoe hare densities in stands with densities of 60% or less (Orr &amp; Dodds, 1982)</li> </ul>

An example of a query is as follows:

"SP1" = 'XS' AND "SP2" = 'BF' AND "HEIGHT" <=12 AND "CRNCL" <=60

The above query selects for a mixed spruce-dominated forest with balsam fir as the second story species, a height of 12 m or less, and crown closure percentage of 60% or less. Stands within the Project area that meet the above characteristics exhibit preferred habitat, and should be monitored first. This information will inform the location of transects for snowshoe hare pellet counts and lynx snow tracking.

#### 4.2 Transects

The Project area will be subdivided into surveying units (SU), following methodology outlined by Zielinski & Kucera (1995), who developed a monitoring protocol to detect the presence of lynx and other carnivores in northern Maine.

Using GIS, the Project area will be divided into 3.2 km<sup>2</sup> plots based on UTM coordinates, a SU recommended for projects that do not use the US township land survey system (Zielinski & Kucera, 1995). If portions of the SU fall outside the Project area, survey those areas within the Project area first. As well, prioritize the SU for those that contain preferred habitat data, as described above.

Within each SU, locate the existing access roads. Roads serve as adequate monitoring transects, as lynx are known to cross roads in search of snowshoe hare, which favours forest edge for browsing (Nova Scotia Recovery Team, 2007). In summer, transects will be surveyed by ATV. In winter, transects will be surveyed by snowmobile. In support of

this, Parker (2001), who studied Cape Breton lynx in the 1980s, found that radio-collared lynx were not bothered by snowmobiles. Surveying transects by snowmobiles will therefore not add further stress to the animals, if their presence is detected in the Project area.

If there are no roads within the SU, the monitoring will be completed on foot (with snowshoes or skis in winter conditions).

Begin transect surveys in the portion of the SU with the most likely habitat. If on foot, cover the SU moving from the most suitable to least suitable habitat as recommended by Zielinski & Kucera (1995). If on ATV or snowmobile, traversing all roads should be easy to complete in one day.

#### 4.3 Snowshoe hare pellet counts

Monitoring pellet counts in 1-m circle plots is an effective, accurate technique for surveying snowshoe hare at low densities (Murray, Roth, Ellsworth, Wirsing & Steury, 2002). Research by NSDNR, ongoing since 1993, has found lower densities of snowshoe hare pellets in Cape Breton and Richmond counties of Cape Breton Island, the location of the Project area, than in Inverness and Victoria counties. NSDNR research also employs the 1-m circle plot technique (Parker, 2001). Summer pellet counts indicate population numbers for the preceding autumn and winter season (Parker, 2001).

Summer field assessment will be completed in 2012. Follow transects and SU methodology as identified above. The 1-m circle plots will be located on transects, at least 1 km apart (Murray et al., 2002). Mark the plots with a wooden stake in the centre and measure a 1-m circle around; the same circle plots will be used for both summer and winter monitoring, and should be recorded on a GIS map of the Project area, to demonstrate how they fit along the surveying transects. Further, there should be at least one 1-m plot per SU.

The numbers of snowshoe hare pellets will determine if there are sufficient levels of prey in the Project area to support lynx.

#### 4.4 Recording

Complete the Snowshoe Hare Pellet Count Form during every survey (Appendix I). Record the date, time in and time out for surveying, observers present, and the time since last snowfall for winter monitoring (information can be accessed from Environment Canada weather data, see below). Record the circle plot number, transect number, and turbine number as you move through the project area. Record the number of pellets observed at each plot. See figures 1 and 2 for snowshoe hare pellet and track examples.

**Figure 1: Snowshoe hare tracks in snow.**



**Figure 2: Snowshoe hare pellets.**



#### 4.5 Lynx snow tracking

##### 4.5.1 *Background*

Snow tracking methodology is easily repeatable and thus considered accurate over a long term. Crowley (2006) used protocols developed by Zielinski & Kucera (1995), and found that lynx could be adequately surveyed by two people on snowmobiles.

##### 4.5.2 *Tracks*

Lynx tracks are usually less distinct in snow, often with a powder-puff appearance from hairy paws. In wet or compacted snow, lynx tracks will sometimes display smaller toe pads. Back feet often follow the front foot tracks, and their trails tend to “wander” compared with the more straight-line patterns of foxes and coyotes (see figure 1). When walking, the stride (distance between footprints of the same foot) is 30-70 cm for lynx (Crowley, 2006).

**Figure 3: Lynx tracks in snow (Squires, McKelvey & Ruggiero, 2004).**



Lynx tracks are approximately 7.5-9.5 cm long and 9-11.5 cm wide in dirt and up to 11.5 cm long and 12.5 cm wide in snow. Bobcat tracks are approximately 4.5-6.5 cm long and 4.5-6.5 cm wide in dirt and 6.5 cm long and 7 cm wide in snow. Both bobcats and lynx have 4 toe pads on the front and hind feet. Tracks from both species typically do not show claws as they do with foxes and coyotes, giving the tracks a rounded appearance. See table 2 in Appendix II, 'Track identification guide of carnivore families' for more information on differences between similar carnivore tracks that may be encountered in the Project area. Further help may be found in Gibbons' (2003) *Mammal Tracks and Sign of the Northeast*.

#### 4.5.3 Surveying

A maximum of three (3) snow tracking surveys are to be completed on all SU in the Project area during the 2012/2013 season, dependent on weather conditions. Surveys are conducted 24 to 72 hours after a significant snowfall event, preferably in the morning, to allow for nocturnal lynx movement but to limit deterioration of tracks (Crowley, 2006). Significant snowfall, for the purposes of this project, will be any accumulation of 10 cm or above, as used by Crowley (2006). The maximum of three surveys are completed to reduce costs, and is considered a reasonable amount of effort (Zielinski & Kucera, 1995). Winter surveys will be conducted on as many SU each winter as time, personnel, and funds will permit, and on as many SU per day as possible. Once lynx has been detected in the Project area, monitoring may be adjusted for the long-term.

Reports of snowfall events will be collected from Environment Canada weather data for Sydney Airport, approximately 58 km from the Project area, 46°10'00" N 60°02'53.300" W, elevation 61.90 m (Environment Canada, 2012). This station records weather information pertinent to this monitoring protocol, such as total snowfall amount (cm) and snow on the ground (cm). Weather conditions are updated on an hourly basis and

compiled by the month. Records are kept on the Environment Canada website<sup>1</sup>, so that weather information for surveying days can be accessed at a later date.

#### 4.5.4 Recording

Complete the Track Observation Form (Appendix III) during every survey. Record the species observed, date, time, and observers present. As for the snowshoe hare pellet count form, record the transect number and nearest turbine number. Record the UTM coordinates of the track location with a GPS, as well as elevation and aspect. If photos were taken, indicate 'yes' and fill out the photographic record table with numbers of frames. Record habitat information, such as tree species and understory species, along with any coarse woody debris present. Record the time since last snowfall, using Environment Canada weather data if needed. Measure the tracks, both front and back and along the stride if possible, for both length and width. Indicate if the measurements are recorded in centimetres or inches. Space is provided for any comments or drawings relevant to the survey.

Comments should include information about any unusual sightings (e.g., lynx den, snowshoe hare carcass, or identifiable presence of Eastern coyote or bobcat). Whenever possible, lynx tracks detected during surveys are backtracked to obtain a hair sample. Any hair encountered while surveying should be kept and sent to the NSDNR office in Kentville for genetic analysis, contributing to on-going monitoring of lynx by NSDNR.

#### 4.6 Monitoring Timeline

BluEarth proposes to commence the lynx study at BluEarth Discretion based on results of RFP however assuming that BluEarth is successful the following is proposed:

1. Summer; Spring; Winter 2012;
2. Prior to and during construction through Spring; Summer; Fall; Winter 2013;
3. Post construction: Spring, Summer, Fall, Winter 2014 and 2015. This two year post construction monitoring would coincide with a two year post construction mortality study for birds/bats at the Project.

## 5 References

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[http://www.climate.weatheroffice.gc.ca/climateData/dailydata\\_e.html?timeframe=2&Prov=NS&StationID=6486&hlyRange=1953-01-01|2012-04-23&Year=2012&Month=4&Day=23](http://www.climate.weatheroffice.gc.ca/climateData/dailydata_e.html?timeframe=2&Prov=NS&StationID=6486&hlyRange=1953-01-01|2012-04-23&Year=2012&Month=4&Day=23)



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## **Appendix I**





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## **Appendix II**

**TABLE 2: TRACK IDENTIFICATION GUIDE OF CARNIVORE FAMILIES**

(Adapted from Zielinski &amp; Kucera, 1995, p. 95)

Characteristic	Family		
	Canidae	Felidae	Mustelidae
Track formula <sup>1</sup>	F4 h4 C	F4 h4	f5(4) h5(4) co
Foot shape <sup>2</sup>	Rectangular	Round, wide, rectangular	Wide
Larger feet	Front	Front	Varies
Toe-position asymmetry <sup>3</sup>	Little	Some	Significant
Toe shape	Rounded	Teardrop	Rounded
Toe arc <sup>4</sup>	Stepped	Flat	Rounded
Relative toe sizes	Nearly equal	Graduated	Graduated
Position of largest toe <sup>5</sup>	Medial	Medial	Lateral
Toe splaying <sup>6</sup>	Common	Uncommon	Uncommon; 1-3-1
Claw presence	Usually	Seldom	Variable
Interdigital pad	1 lobe, or pointed anterior edge	2 lobes, or flat anterior edge	Asymmetric; chevron
Interdigital pad relative size	Small	Large	Narrow, large
Metatarsal pad	No	No	Yes

<sup>1</sup>F= front track, H=hind track. The capital letter F or H indicates which foot is bigger. Numbers indicate how many toes usually show in a clear print. Numbers in parenthesis indicate the number of toes that often show in indistinct prints. C= claws almost always show, co=claws often show.

<sup>2</sup>Outline of the footprint including all pads.

<sup>3</sup>Position of the toes relative to an anterior-posterior centre line.

<sup>4</sup>A line drawn around the anterior edge of the toe pads. In felids, toe 3 (toe 1 is absent), and in mustelids, toe 4 may appear slightly anterior to the line.

<sup>5</sup>Relative location of the big toe.

<sup>6</sup>Separation between toes, often a function of substrate and speed.

Animals found on Cape Breton Island by family:

**Canidae:** Red fox (*Vulpes vulpes*), Coyote (*Canis latrans*), Cougar (*Puma concolor*)

**Felidae:** Lynx (*Lynx canadensis*), Bobcat (*Lynx rufus*)

**Mustelidae:** Fisher (*Martes pennanti*), American marten (*Martes americana*), Common Weasel (*Mustela erminea*)



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## **Appendix III**

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Observers: \_\_\_\_\_

Transect #: \_\_\_\_\_ Nearest Turbine (#): \_\_\_\_\_

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken?      Y      N

Habitat: \_\_\_\_\_

Time since last snowfall: \_\_\_\_\_

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote

Date: Jan 12 2014 Time: 1135 Observers: Jim MM

Transect #: 9 Nearest Turbine (#): 15

UTM Coordinates: 0688734 5082145

Elevation: 168 Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: 8yr old cc

Time since last snowfall: 16 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)  
 M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	<u>13.37.51.jpg</u>

Comments and Drawings:

5 sets of snowshoe hare present

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hawk X3

Date: Jan 10 2014 Time: 11:12 Observers: Jm

Transect #: 7 Nearest Turbine (#): 37

UTM Coordinates: 0696719 5080032

Elevation: 181m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: CC

Time since last snowfall: 13 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

Snowshoe hawk tracks @ end of #7

old coyote? tracks on #1, too old to confirm.

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Covote + 2 sets of hare

Date: Jan 10 2014 Time: 10:32 Observers: EM

Transect #: 4 Nearest Turbine (#): 4

UTM Coordinates: 0695618 5077981

Elevation: 113 m Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: CC

Time since last snowfall: 10 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	<u>10.25.31.jpg</u>
	<u>10.25.39.jpg</u>

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote

Date: Jan 10<sup>th</sup> / 2014 Time: 10:18 a.m. Observers: M. MacPhail

Transect #: 5 Nearest Turbine (#): 6

UTM Coordinates: 0685391 5077093

Elevation: 165 m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: 15 year old balsam fir intolerant Hud mix

Time since last snowfall: 1 day

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

- Coyote walked up transect whole distance.
- 6 tracks of snowshoe hare observed

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote

Date: Jan. 10<sup>th</sup> / 2014 Time: \_\_\_\_\_ Observers: M. MacPhail

Transect #: 2 Nearest Turbine (#): 2

UTM Coordinates: 0683669 5097025

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: Recent harvest of softwood, Hardwood & small softwood

Time since last snowfall: 1 day remains.

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

- Walking along road / transect 2
- 4 sets of snowshoe have visible crossing transect.

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote

Date: Jan 10<sup>th</sup> / 2014 Time: 10:55 Observers: M. MacPhail

Transect #: 8 Nearest Turbine (#): 10/15

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y (N)

Habitat: \_\_\_\_\_

Time since last snowfall: Soft wood removed in recent harvest (24 hrs)

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

3 sets of snowshoe hare on road & crossing road

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote

Date: Jan 21 2014 Time: 1:30pm Observers: Jim / MMP

Transect #: 9 Nearest Turbine (#): 22

UTM Coordinates: 0688844 5082179

Elevation: 169m Aspect: S Photos Taken?  Y  N

Habitat: \_\_\_\_\_

Time since last snowfall: 48 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)  
 M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	<u>13.19.27.jpg</u>

Comments and Drawings:

- 11 sets of snowshoe have crossing transect 9

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: White-tailed Deer + Snowshoe hare x 5

Date: July 1 2021 Time: 12:14 Observers: JML

Transect #: 3 Nearest Turbine (#): 3

UTM Coordinates: 0683932 5026238

Elevation: 1164m Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: Clearcut / spr. plantation

Time since last snowfall: 48 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)  
M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	<u>12.11.55</u>

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote + Snowshoe hare (photo)

Date: Jan 21 2014 Time: 10:56 Observers: SMC

Transect #: 7 Nearest Turbine (#): 37

UTM Coordinates: 068 67 18 507 91 27

Elevation: 190 m Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: Clear cut

Time since last snowfall: 48 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	<u>11.02.29</u>

Comments and Drawings:

- One coyote track
- 4 sets of hare crossing transect

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Sparus borealis?

Date: Jan 21 2014 Time: 10:34 Observers: 301 MHP

Transect #: 6 Nearest Turbine (#): 18

UTM Coordinates: 0687741 5072708

Elevation: 166 Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: 35 year old mixed wood forest stand

Time since last snowfall: 48 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	10.24.33.jpg
	10.28.11.jpg
	10.32.54.jpg

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowy Owl here X2 40m apart.

Date: June 21 2014 Time: 9:54 Observers: SM

Transect #: 4 Nearest Turbine (#): 4

UTM Coordinates: 068 5617 5077059

Elevation: 169m Aspect: S Photos Taken?  Y  N

Habitat: 15 yr Plantation

Time since last snowfall: 48 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	<u>09, 56, 49, jpg</u>

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare x 4

Date: Feb 25<sup>th</sup> 2014 Time: 2:20pm Observers: MPD

Transect #: 1 Nearest Turbine (#): 33

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Softwood removed in recent harvest

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: LYNY

Date: Feb. 25<sup>th</sup> Time: 1:00 p.m. Observers: MMP & JMC

Transect #: En route to transect 9 Nearest Turbine (#): 15

UTM Coordinates: 0688600 5082235

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken?  Y  N

Habitat: Intolerant hardwood/softwood mix - 30 years old

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Lynx  
Date: Feb 25<sup>th</sup> / 14 Time: 10:30 Observers: MAP & JML  
Transect #: On road to transect 7 Nearest Turbine (#): 37  
UTM Coordinates: 0688082, 5082937 & 0687950  
Elevation: 180 Aspect: \_\_\_\_\_ Photos Taken? Y 5079563  
Habitat: 25 year old mixed wood stand - recent CC  
Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare xd

Date: Feb 25 2014 Time: 10:36 Observers: SMI

Transect #: 7 Nearest Turbine (#): 37

UTM Coordinates: 0686823 5080120

Elevation: 180 m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: cc

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

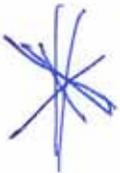
M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

0688082, 5082937 ← Lynx Tracks not on transects out close  
0687950, 5079563 ⇒ Photos taken



# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote & Snowshoe hare \* 6

Date: Feb 25<sup>th</sup> Time: 9:30am Observers: MP

Transect #: 4 Nearest Turbine (#): 6

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y N

Habitat: Mixed wood stand

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

- Coyote traveled up road for approx. 40 m.
- 6 sets of hare crossing

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: snow shoe hare \* 4 - white tailed deer

Date: March 5<sup>th</sup> Time: 11:00 Observers: MP

Transect #: 2 Nearest Turbine (#): 2

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Softwood removed in harvest

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Shovshoe hare X 11 + Coyote X 1

Date: March 5 2014 Time: 11:40 Observers: JML MMP

Transect #: 9 Nearest Turbine (#): 22

UTM Coordinates: 0689031 5082252

Elevation: 172 m Aspect:      Photos Taken?  Y  N

Habitat: coyote.

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Shawnee hawk x3

Date: March 5 Time: 11:06 Observers: 3mL

Transect #: 3 Nearest Turbine (#): 3

UTM Coordinates: 0683894 5076202

Elevation: 165 m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: cc 5 year old plantation

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Shawstoe hare x3

Date: March 5 2014 Time: 10:26 Observers: SM L

Transect #: 7 Nearest Turbine (#): 37

UTM Coordinates: 0686801 5080117

Elevation: 179m Aspect: \_\_\_\_\_ Photos Taken? Y

Habitat: CC

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare X 26 + Ruffed Grouse X 1

Date: March 5 2014 Time: 10.13 Observers: JmL MMP

Transect #: 6 Nearest Turbine (#): 18

UTM Coordinates: 068 7321 507 8599

Elevation: 168 m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: 35 year old mixed wood

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snow shoe hare X 6

Date: March 5 2014 Time: 9:54 Observers: JmL MMP

Transect #: 4 Nearest Turbine (#): 4

UTM Coordinates: 0685493 5077079

Elevation: 172 m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: 15 years old plantation

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: 1 Coyote - 8 sets of snow shoe hare

Date: March 7<sup>th</sup> Time: \_\_\_\_\_ Observers: MP

Transect #: 8 Nearest Turbine (#): 10

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y N

Habitat: Mixed wood stand - 30-40 yrs old.

Time since last snowfall: 3.5 days

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: 2 sets of coyote - 4 sets of hare

Date: March 7<sup>th</sup> Time: 10:30 Observers: MP

Transect #: 6 Nearest Turbine (#): 18

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y N

Habitat: \_\_\_\_\_

Time since last snowfall: 3.5 days

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snow shoe hare - 3 sets

Date: March 7<sup>th</sup> Time: \_\_\_\_\_ Observers: MP & JML

Transect #: 2 Nearest Turbine (#): 2

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: recent harvest - softwood removed

Time since last snowfall: 3.9 days

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

**TRACK OBSERVATION FORM**

(Adapted from Zielinski &amp; Kucera, 1995)

Species Observed: Coyote 1 set - Snowshoe hare 4 setsDate: March 12 Time: 10:40 Observers: MP & JMKTransect #: 5 Nearest Turbine (#): 9

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  NHabitat: recent ccTime since last snowfall: 24 hrsMeasurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

- Coyote crossed road, then back up & used road to travel for 100m.

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snow shoe hare x1

Date: March 12 2014 Time: 11:00 Observers: JML

Transect #: 7 Nearest Turbine (#): 37

UTM Coordinates: 0686799 5080143

Elevation: 179 m Aspect: - Photos Taken? Y  N

Habitat: CC

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare x3

Date: March 12 2014 Time: 12:15 Observers: Tom L

Transect #: 3 Nearest Turbine (#): \_\_\_\_\_

UTM Coordinates: 0683926 5076226

Elevation: 165 Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: 5 years old Clearcut

Time since last snowfall: 24

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare x 5

Date: March 12 2014 Time: 12:31 Observers: Jim & MMP

Transect #: 9 Nearest Turbine (#): 22

UTM Coordinates: 0689048 5082258

Elevation: 171m Aspect: EW Photos Taken? Y  N

Habitat: Spruce CC

Time since last snowfall: 24

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snow shoe hare x 6

Date: March 12 2014 Time: 10:30 Observers: JSM

Transect #: 4 Nearest Turbine (#): 4

UTM Coordinates: 068 5534 5077063

Elevation: 172m Aspect: — Photos Taken? Y  N

Habitat: 15 year old Plantation

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe Hare X 23

Date: March 12 2014 Time: 10:45 Observers: Jiml MMP

Transect #: 6 Nearest Turbine (#): 18

UTM Coordinates: 0686992 5078493

Elevation: 166 Aspect: — Photos Taken? Y  N

Habitat: CC

Time since last snowfall: 24

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare - Five sets

Date: March 12 Time: 11:25 Observers: MP

Transect #: 8 Nearest Turbine (#): 10

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Mixed wood stand

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare & 3 1 coyote

Date: Aug 25 2000 Time: 1:51 Observers: Paul Kemp

Transect #: 4 Nearest Turbine (#): 4

UTM Coordinates: 0695662 5079060

Elevation: 1090 Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: wood

Time since last snowfall: 34

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare x 6

Date: March 28 2014 Time: 2:01 pm Observers: JrL WHP

Transect #: 6 Nearest Turbine (#): 18

UTM Coordinates: 0687228 5078590

Elevation: 172 m Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: \_\_\_\_\_

Time since last snowfall: 24

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snow shoe hare x 4 sets

Date: March 28<sup>th</sup> Time: 3:10 Observers: MPF JML

Transect #: 2 Nearest Turbine (#): 2

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Recent CC - softwood removed

Time since last snowfall: 24 hrs

Measurement units are in **cm** or **in** (mark out the units **NOT** used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare \* 2

Date: April 4 Time: 11:30 Observers: MP & JML

Transect #: 8 Nearest Turbine (#): 10

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: clear cut

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare \* 1

Date: April 4th Time: 2:45 Observers: MP & JML

Transect #: 2 Nearest Turbine (#): 2

UTM Coordinates: \_\_\_\_\_

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Softwood removed

Time since last snowfall: 3hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Coyote & Snowshoe hare x 3

Date: April 4<sup>th</sup>/14 Time: 10:15 Observers: MPD & JMK

Transect #: 6 Nearest Turbine (#): 18

UTM Coordinates: 068944 5078453

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Mixed wood stand

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:

# TRACK OBSERVATION FORM

(Adapted from Zielinski & Kucera, 1995)

Species Observed: Snowshoe hare # 2

Date: April 4<sup>th</sup>/14 Time: 2:15 Observers: MP & JMC

Transect #: 3 Nearest Turbine (#): 28

UTM Coordinates: 684467 5076338

Elevation: \_\_\_\_\_ Aspect: \_\_\_\_\_ Photos Taken? Y  N

Habitat: Clear cut

Time since last snowfall: 36 hrs

Measurement units are in **cm** or **in** (mark out the units NOT used)

M1, M2, and M3 refer to sequential measurements on one trail, i.e. 3 strides or 3 right prints

Prints	Length			Width		
	M1	M2	M3	M1	M2	M3
Front						
Hind						

Photographic Record	
Frames	

Comments and Drawings:







