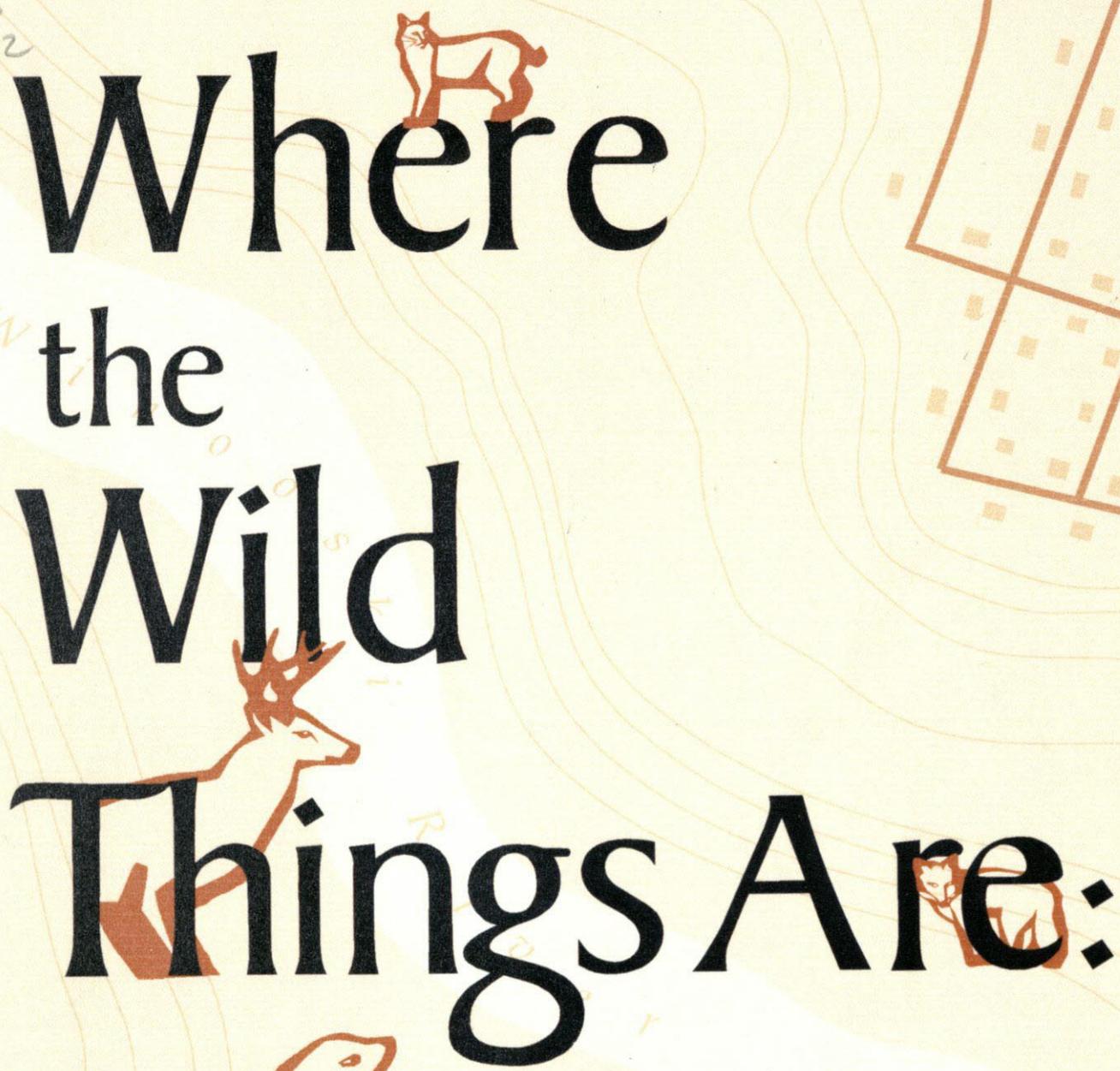


W11B
GL
71a
V4
D36
S65
2002



Where the Wild Things Are:

Large Mammal Habitats and Corridors
in South Burlington, Vermont

Submitted by Alicia Daniel and Patricia Fontaine
Winooski Valley Park District, January 2002

The Winooski Valley Park District is a partnership between Burlington, Colchester, Essex, Jericho, So. Burlington, Williston, and Winooski created to preserve urban natural areas for the purposes of wildlife conservation, education and passive recreation.

WILB
QL
719
.U4
D36
S65
2002

Acknowledgements

We greatly appreciate the help of South Burlington residents who attended meetings, and sent in data and letters concerning wildlife in the community.

We'd like to thank all of the people and organizations that gave their support to this project. We are grateful for financial support from The Fieldstone Foundation, Sustainable Future Fund, the City of South Burlington, and the Winooski Valley Park District's seven municipal members, South Burlington, Burlington, Colchester, Essex, Jericho, Williston, and Winooski.

Our thanks goes to the South Burlington Planning and Zoning staff, Joe Weith, Sarah Macallum, Stephanie Smith, and Julie-Beth Hoover, who helped steer the project. We thank the South Burlington Natural Resource Committee who helped guide the project, especially in the earliest stages of its conception, and who gave comments and helped edit the report.

Special thanks goes to Cynthia Norman for the GIS mapping work and to the Vermont Center for Geographic Information for supporting Cynthia in the mapping, providing the tools necessary.

We thank the winter and Keeping Track® trackers, Ben Copans, Susan and Peter Alden, Mark Ward, Alicia Daniel, and Cynthia Norman for their tracking efforts in South Burlington.

We appreciate the help of Bonnie Acker for contributing the artwork for the cover and to Ron Baker for the cover design.

Special thanks goes to John Austin from the State Fish and Wildlife Department for his assistance with the project and review of various maps of South Burlington and of the Wildlife and Corridors map included in the text.

Finally, Susan Morse and Lars Botzjorns of Keeping Track® made all of the tracking data we gathered possible through their tireless dedication to Vermont wildlife.



Table of Contents

Context for this Report	i
Executive Summary	ii
Recommendations for Municipal Actions.....	iii
Introduction	1
Large Mammals: Historical Context for Conservation.....	1
South Burlington's Commitment to Habitat Protection.....	2
Large Mammal Habitat and Corridors Project	2
Large Mammal Habitat and Potential Corridors in South Burlington	3
Methodology	4
Large Mammal Habitat Map	9
Results and Discussion	10
Large Mammals in South Burlington.....	10
Large Mammal Habitat	10
Table 1. South Burlington Large Mammal Tracks, Sign and Sightings.....	12
Core Habitat	13
Recommendations for City Actions	14
Appendix I: Recommendations from John Austin	
Appendix II: Glossary	
Appendix III: Attribute Table for Large Mammals in South Burlington	
Appendix IV: Strategic Winter Tracking Protocol	
Appendix V: Eyewitness Report Form	

Context For This Report

Chittenden County is at a crossroads for regional planning. The presence and abundance of large mammals in the wilder places of every city and town, including the City of South Burlington, attests to the fact that these animals--- bobcat, fisher, moose, fox, coyote, deer, bear, otter, mink and beaver--- are not only surviving in the region, but also can still get from place to place.

The Winooski Valley Park District Large Mammal Habitat and Corridors Project is a regional initiative to identify important habitat in Chittenden County on a Town-by-Town, City-by-City basis and to look for linkages between habitats. It is no longer enough to protect isolated parcels. In order to retain ecological integrity these parcels must remain interlinked.

This report represents a reasonable approximation of good habitat in South Burlington at the present time. Ideally, a future report will couple additional reliable eyewitness accounts of large mammals in South Burlington with more tracking data about how animals are moving from place to place. South Burlington in cooperation with Keeping Track® is still working on training and deploying such trackers. The Park District will continue to work on this with both groups. A map that highlights large mammal habitat and suggests linkages is an important tool in the current open space planning process. It shows which animals have been seen where.

Because most reports were eyewitness accounts there is a bias, no doubt, toward large and easy to spot animals. Based on data from Burlington, we would expect reports of fisher, for instance, to rise with intensified tracking efforts.

The potential corridors in this report need to be further field-tested. They are largely based several years of field data and knowledge of animal behavior. This report focuses solely on large mammals. Of course this is only one aspect of South Burlington's rich natural heritage and other factors need to be considered to truly capture a diversity of flora and fauna.

Executive Summary

Sightings of large mammals crisscross the City of South Burlington. Mink and otter are found seeking out prey in the abundant wetlands along Muddy Brook, the Winooski River and in the South East Quadrant. Tracks of moose, deer and bobcat are found passing through corridors from Williston and Shelburne into South Burlington. The landscape in and around South Burlington is a key natural habitat linking the Green Mountains to Lake Champlain.

The citizens of South Burlington are working on an Open Space Plan for the City in order to best use its resources and preserve the open space still available. In addition to serving essential ecological functions, wildlife habitat enriches the human experience by providing opportunities for recreation and education. Nationwide, many urban natural areas exist as virtual islands within a sea of development and, as such, are incapable of sustaining large wild mammals.

Presently, many of South Burlington's natural areas are linked within the City and to habitats in surrounding towns. It is crucial that large natural areas remain openly connected to other suitable habitat in order to sustain large wild mammals. Planned connections also ensure adequate genetic diversity over the long term and provide the possibility of replacements in the event of local declines. Inventorying and mapping where wildlife live in South Burlington now is the first step to ensuring the continued presence of wildlife within the City, and to maintaining viable corridors not only in South Burlington but also throughout Chittenden County.

The Winooski Valley Park District (the Park District), its seven member towns, and six local conservation commissions have facilitated the training of nearly 50 citizen scientists through the Keeping Track® training program¹ since 1997. The purpose of this initiative is to document wildlife presence in the region and to help guide Park District management decisions within its own system of publicly-owned natural areas. In the fall of 2000, the Park District received grant funding from the Fieldstone Foundation and the Vermont Community Foundation to support the Large Mammal Habitat and Corridors Project.

The objectives of the South Burlington initiative address the needs of the City of South Burlington in acquiring information for the Open Space Plan as well as the goals of the Winooski Valley Park District in its Large Mammal Habitat and Corridors Project (see map page 9).

It is clear that the City of South Burlington has intact and interconnected habitat areas in the South East Quadrant, along the Muddy Brook Corridor, the Winooski River Corridor, the shore of Lake Champlain, between Dorset and Spear Street in the south, and at Centennial Woods and Valley Ridge.

Large mammal habitat in South Burlington is linked to neighboring towns. The Winooski River corridor to the north links the City with Essex, Colchester and Winooski. UVM's Centennial Woods, the Park District's Valley Ridge Preserve and the City's own Red Rocks Park are all links to Burlington. The South East

¹ For more information contact Keeping Track® (P.O. Box 444, Huntington, VT 05462) 434-7000

Quadrant is a link to Shelburne Pond and Brownell Mountain. The entire Muddy Brook corridor links South Burlington to Williston.

The preliminary large mammal habitat map is not intended to be the final word on mammal habitat in South Burlington. Animals may reside or pass through locations outside of the identified areas. The map is a product of present efforts and reflects a reasonable approximation of good habitat in the City at the present time. The map can and should be modified, as new information becomes available.

A total of 133 records of mammal tracks, sign, or sightings were compiled from all sources (Appendix 1). The results show that large mammals are abundant in South Burlington. Nine of the ten focal species were documented in South Burlington (Table 1). Bear was the only species not documented in the past five years. The species recorded in the greatest number of locations were deer. The least commonly reported species were fisher and bobcat.

Recommendations for Municipal Actions

The following actions can increase protection for large mammals and their habitat in South Burlington:

1. Ensure long-term protection of core habitat.
2. Make protection of habitat connectivity, including key wildlife corridors, a priority.
3. Conserve habitats for rare, threatened and endangered species.
Conserve a sufficient representation of the current diversity of habitats to maintain viable populations of existing species.
4. Establish conservation zones along Muddy Brook corridor and Winooski River corridor, to link those corridors with Shelburne Pond lands.
5. Institute tracking efforts to confirm animal presence and movement and to help assess the status of mammal populations through Keeping Track[®] transect monitoring and strategic winter tracking.
6. Restore existing City-owned features to improve their functionality for wildlife.
7. Work with residents of neighborhoods that function as wildlife corridors to maintain their land's permeability to wildlife.
8. Include a Large Mammal Habitat and Corridor Map in the future Open Space Planning documents.
9. Maintain working lands, i.e. agricultural lands and woodlands which also function as important wildlife habitat.

Introduction

Sightings of large mammals crisscross the City of South Burlington. Mink and otter are found seeking out prey in the abundant wetlands along Muddy Brook, the Winooski River and the South East Quadrant. Tracks of moose, deer and bobcat are found passing through corridors from Williston and Shelburne into South Burlington. The landscape in and around South Burlington is a key natural habitat linking the Green Mountains to Lake Champlain.

Currently, the citizens of South Burlington are working on an Open Space Plan for the City in order, to best use its resources and preserve the open space still available. In addition to serving essential ecological functions, wildlife habitat enriches the human experience by providing opportunities for recreation and education. Nationwide, many urban natural areas exist as virtual islands within a sea of development and, as such, are incapable of sustaining large wild mammals.

Many of South Burlington's natural areas are linked within the City and to habitats in surrounding towns. Careful planning can ensure that large natural areas remain openly connected to other suitable habitat in order to sustain large wild animals. Planned connections also ensure adequate genetic diversity over the long term and provide the possibility of replacements in the event of local declines. Inventorying and identifying where wildlife live in South Burlington now is the first step to ensure the continued presence of wildlife within the City, and to maintain viable corridors not only in South Burlington but also throughout Chittenden County.

Large Mammals: Historical Context for Conservation

At the close of the 19th century, it would have been impossible to see deer, beaver, coyote, moose or fisher within the City limits even though South Burlington was much more rural than it is today. By the late 1800's deforestation and unregulated hunting and trapping had resulted in the extirpation of these and other species in Vermont. Some—like the mountain lion, wolf, and elk—have yet to return.

But the diversity of large mammals in the State is on the rebound. Vermont biologists reintroduced deer (1878), beaver (1921), fisher (1959), and the populations of these species have increased dramatically with the regeneration of forested habitat in Vermont² and with stronger hunting and trapping regulations. Other species such as moose and coyote have expanded their ranges in response to habitat changes and reduced predation and competition from wolves. A visitor to the wilder places in the City after a winter snow can now expect to see the tracks of large mammals. That is, in a sense, miraculous.

South Burlington's Commitment to Habitat Protection

In 2000, the City of South Burlington received a planning grant from State of Vermont to work on an Open Space Plan for the City. The Natural Resource Committee asked that wildlife habitat be included in the preliminary gathering of data for the Plan.

Large Mammal Habitat and Corridors Project

The Winooski Valley Park District (the Park District), its seven member towns, and six local conservation commissions have facilitated the training of nearly 50 citizen scientists through the Keeping Track® training program³ since 1997. The purpose of this initiative is to document wildlife presence in the region and to help guide Park District management decisions within its own system of publicly-owned natural areas. Keeping Track's mission is to inspire community participation in the long-term stewardship of wildlife habitat. They teach concerned adults and children to observe, interpret and record evidence of wildlife in their communities, enabling communities to become involved in the appropriate long-term stewardship of wildlife habitat. Keeping Track's focus on wide-ranging mammals provides a vital indicator of the ecological health of the landscape as a whole. Their training focuses on five area sensitive carnivore species (bobcat, bear, otter, mink and fisher) and moose. Trained trackers are

² Forested area in Vermont has increased from a low of 30% in the late 1800's to almost 70% today.)

³ For more information contact Keeping Track® (P.O. Box 444, Huntington, VT 05462) 434-7000

currently monitoring seven, two-and-a-half mile transects in Chittenden County. The information that they are gathering provides those interested in wildlife conservation with a better idea of where large mammals are currently found in the region.

In the fall of 2000, the Park District received grant funding from the Fieldstone Foundation and the Vermont Community Foundation to support the Large Mammal Habitat and Corridors Project. The goals of the Large Mammal Habitat and Corridor Project are:

- To coordinate Keeping Track® volunteer efforts by looking at the placement of monitoring transects with a regional context and
- To provide technical assistance to cities and towns who want to use tracking data and habitat expertise in their conservation planning efforts.

The Park District hired Field Naturalist Alicia Daniel to advise on the project and Cynthia Norman to work on the GIS mapping of the data. Both are trained trackers. The Vermont Center for Geographic Information graciously allowed Cynthia the use of their computers, printers and advised her in the mapping.

Large Mammal Habitat and Potential Corridors in South Burlington

The objectives of the South Burlington initiative address the needs of the City of South Burlington in acquiring information for the Open Space Plan as well as the goals of the Winooski Valley Park District in its Large Mammal Habitat and Corridors Project.

These objectives are to:

- Gather data about large mammal presence within South Burlington with the assistance of Keeping Track® trained local trackers, residents of the City and other experts.
- Create a large mammal habitat and corridors GIS database and map for use in City planning.

- Provide information to the South Burlington Natural Resource Committee involved in the project review process regarding valuable wildlife areas identified in the study.
- Make recommendations for City actions that can increase protection for large mammals and their habitat.

Methodology

Action I: Met with City Planning Officials.

Convened a meeting with South Burlington Natural Resource Committee.

Goals:

- To establish the degree of interest in the initiative.
- To look at where the Large Mammal Habitat and Corridors Project fits into the current planning process.
- To determine mammals to focus on in this urban area.

Outcomes:

It was decided that there was interest to gather baseline data on nine large mammals in South Burlington and to map the information on GIS maps. A meeting with the Natural Resource Committee was scheduled to discuss the initiative.

Action II: Met with the Natural Resource Committee

Goals:

- To examine the scope of the project within the time constraints of the Open Space Plan.
- To design an Eyewitness Report Form for public input.

- To look for corridors between the Cities prime large mammal habitats.
- To compile and record sightings of target species and their tracks and sign over the past 5 years.

Outcomes:

The group identified local experts and persons with an interest and knowledge in wildlife to contact for sighting information. A list of trained trackers in South Burlington was compiled. Areas of importance were identified to start looking for tracks in the winter of 2000/2001. An Eyewitness Report Form was developed for the City of South Burlington and an abbreviated version was published in *The Other Paper*, the City's local bi-monthly newspaper.

Action III: Invited Public to Natural Resource Committee Meeting

Goals:

- To further document sightings of focal species and their tracks and sign over the past 5 years.
- To empower interested residents to gather information from neighbors who could not attend the meetings.
- To have the public add sightings to preliminary wildlife maps for South Burlington and to solicit their insights on areas of interest.

Outcomes:

Over fifteen residents came to the meeting to add sightings and areas of interest to the map. Residents took several copies of the Eyewitness Report Forms to hand out to other residents.

Action IV: Distribution of Project Forms to General Public and Trackers

Goals

- To gather as much data as possible for the past five years within the projects short time frame.
- To educate residents on wildlife habitat concerns in South Burlington.

- To enlist the help of Keeping Track trained trackers from surrounding towns.
- To get ideas on areas of interest.

Outcomes:

Over 100 sightings were received from people using the forms handed out at meetings and from the local paper. Several residents also wrote letters of concern for wildlife on or near their property in South Burlington. Throughout the winter of 2000/2001-trained trackers gathered additional data using the strategic winter tracking protocol, additional strategic tracking data was taken from areas covered in South Burlington in the winter of 1999/2000 (see appendices).

Action V: Map Mammal Track, Sign, and Sighting Locations and Mammal Habitat and Corridors

Goals

- To spatially document locations of recent mammal tracks, sign, and sightings.
- To establish a database of mammal tracks, sign, and sighting locations that can be updated.
- To create a map of mammal sightings along corridors for the City of South Burlington.

Outcome:

Cynthia Norman, a Keeping Track® trained volunteer, took on the task of mapping the sightings onto a GIS map with the assistance of the Vermont Center for Geographic Information that donated their equipment and expertise to the project. Cynthia took the database of sightings information and began putting the sightings on the map of the City of South Burlington. Cynthia updated the database for the use with the GIS maps.

Action VI: Met with Experts to Review Draft of Map. Met with Natural Resource Committee for Update.

Goals:

- To prioritize wildlife habitat areas of concern.
- To evaluate aerial photos and the draft map for wildlife corridors.
- To brainstorm future maps.

Outcomes:

A team of four experts was formed to interpret and refine the data that had been collected. Members included John Austin, State Wildlife Biologist, Cynthia Norman, GIS consultant, Alicia Daniel, Field Naturalist, and Trish Fontaine, the Park District's Natural Resource Specialist, also a trained tracker. During two meetings they reviewed orthophotos of the City of South Burlington and a draft GIS mammal sightings map. Using the sighting information together with the land features presented on the draft map and orthophotos, they were able to reach a consensus on the probable locations of the City's wildlife corridors. Looking at the landscape of South Burlington, areas that had not been too fragmented and could still offer reasonable habitat for wildlife were also identified. Future layers for the wildlife map were discussed, including the development of a map for grade school students, and a map, which would include a wider range of species and flora.

Action VII: Finalization of Draft Map and Written Report.

Goals:

- To verify questionable data.
- To view map for ease of reading information.
- To have comments from consultants and the City of South Burlington.
- To draft a written methodology of the project with recommendations for the City concerning large mammal wildlife corridors in the City.
- To print a final map, with related GIS files going to the City of South Burlington and to the Park District.

Outcome:

The Park District continued contacting people who had sent in sighting data that was incomplete in any way and locations that were not well enough defined to map. In the case where there were sightings of the same species in a close proximity, only one sighting was recorded of the species. The map was reviewed to make sure it was easily understandable with all the various information on the map. A draft copy of the map was given to the City of South Burlington to review. Comments were received from John Austin and various residents and Park District staff for wildlife corridors of importance and wildlife concerns. A written report was completed to accompany the map using the template from previous large mammal habitat and Corridors project reports 1.) *Where the Wild Things are: Large Mammal Habitat and Corridors in Burlington, Vermont*, October 2000 and, 2.) *Where the Wild Things are: Large Mammal Habitat and Corridors, Williston, Vermont*, April 2001. Both reports were completed by Alicia Daniel and Mark Ward, Consultants for the Park District.

Goals:

- To provide a map of the City's wildlife corridors.
- To provide a written report of the findings of the map.
- To provide a map of the City's wildlife corridors.
- To provide a written report of the findings of the map.

Outcome:

The map and written report were completed and provided to the City of South Burlington. The map was reviewed and approved by the City of South Burlington. The written report was also reviewed and approved by the City of South Burlington. The map and written report were used to inform the public and to guide future wildlife management efforts.

Mammal Sightings in South Burlington, 2001

Legend

Species

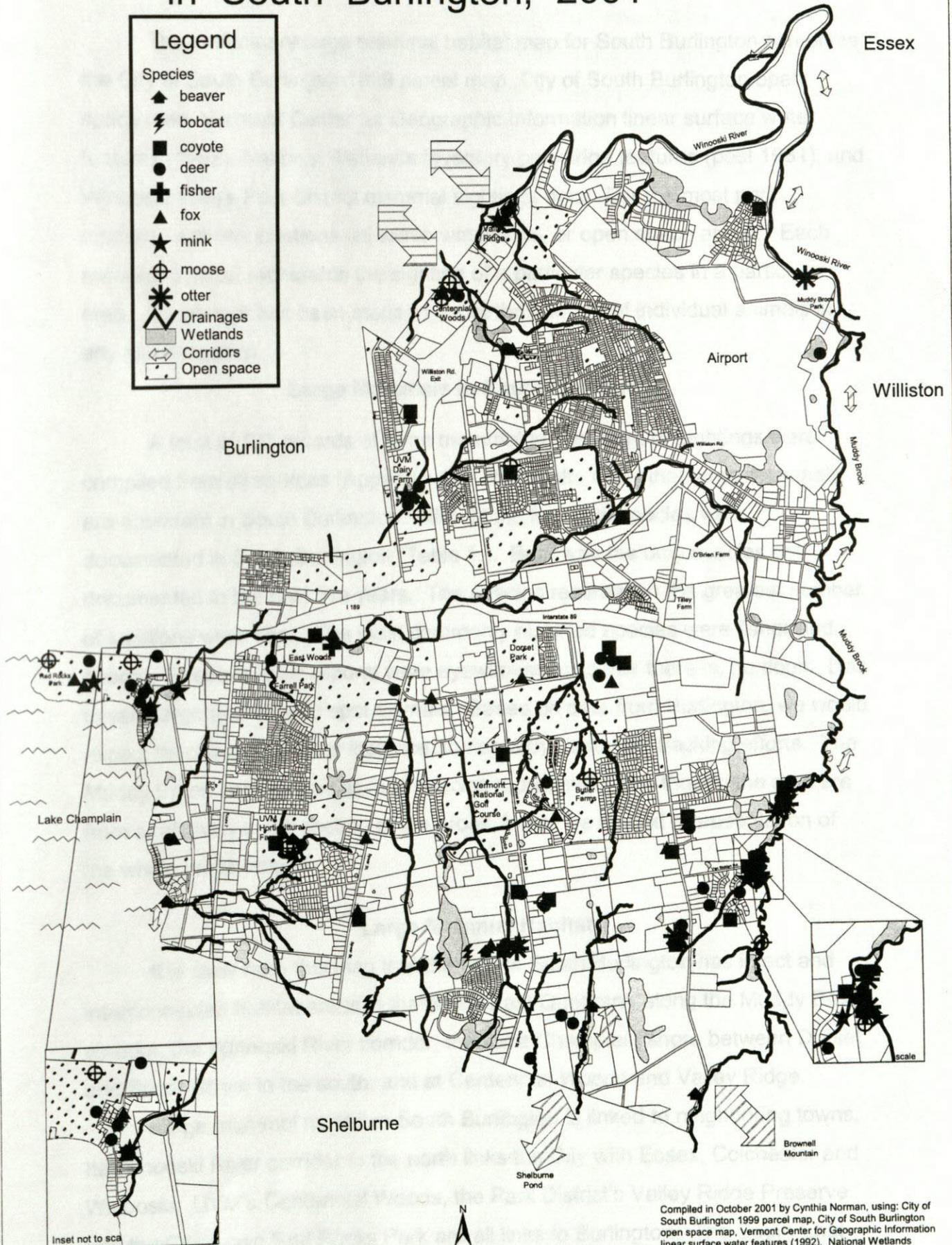
- ▲ beaver
- ⚡ bobcat
- coyote
- deer
- ⊕ fisher
- ▲ fox
- ★ mink
- ⊕ moose
- ✱ otter

Drainages

Wetlands

Corridors

Open space



Compiled in October 2001 by Cynthia Norman, using: City of South Burlington 1999 parcel map, City of South Burlington open space map, Vermont Center for Geographic Information linear surface water features (1992), National Wetlands Inventory palustrine features (post-1981), and Winooski Valley Park District mammal sightings data (1996-2001). Surface water and wetlands features are based on best data currently available; surface water data are due to be corrected in January 2002. Projection: VermontSPCS NAD83.

Results and Discussion

The preliminary large mammal habitat map for South Burlington combines the City of South Burlington 1999 parcel map, City of South Burlington open space map, Vermont Center for Geographic Information linear surface water features (1992), National Wetlands Inventory palustrine features (post 1981), and Winooski Valley Park District mammal sightings data. For the most part, mammal-sighting locations fall within waterways, or open space areas. Each mammal symbol represents the sighting of a particular species in a particular area. No attempt has been made to count the number of individual animals in any given location.

Large Mammals in South Burlington

A total of 133 records of large mammal tracks, sign, or sightings were compiled from all sources (Appendix 1). The results show that large mammals are abundant in South Burlington. Nine of the ten focal species were documented in South Burlington (Table 1.). Bear was the only species not documented in the past five years. The species recorded in the greatest number of locations were deer. The least commonly reported species were fisher and bobcat. Because most reports were eyewitness accounts there is, no doubt, bias toward large and easy to spot animals. Based on data from Burlington, we would expect reports of fisher, for instance, to rise with intensified tracking efforts. The Muddy Brook corridor had all nine species represented and though the data are from a relatively small section of the brook, it may be a good representation of the whole brook length.

Large Mammal Habitat

It is clear from this map that the City of South Burlington has intact and interconnected habitat areas in the South East Quadrant, along the Muddy Brook corridor, the Winooski River corridor, the Lake Champlain shore between Dorset and Spear Street in the south, and at Centennial Woods and Valley Ridge.

Large mammal habitat in South Burlington is linked to neighboring towns. Its Winooski River corridor to the north links the City with Essex, Colchester and Winooski. UVM's Centennial Woods, the Park District's Valley Ridge Preserve and the City's own Red Rocks Park are all links to Burlington. The South East

Quadrant is a link to Shelburne Pond and Brownell Mountain. The entire Muddy Brook corridor links South Burlington to Williston.

The preliminary large mammal habitat map is not intended to be the final word on mammal habitat in South Burlington. Animals may reside or pass through locations outside of the identified areas. The map is a product of present efforts and reflects a reasonable approximation of good habitat in the City at the present time. The map can and should be modified, as new information becomes available.

Table 1 South Burlington Large Mammal Tracks, Sign, and Sightings (1996-2001).

Location	Deer	Red Fox	Coyote	Moose	Mink	Beaver	Fisher	Otter	Bobcat	Number of Species
Muddy Brook Corridor	•	•	•	•	•	•	•	•	•	9
South East Quadrant	•	•	•	•	•	•		•	•	8
UVM Dairy Farm/Quarry Hill	•	•	•	•	•	•				6
UVM Horticulture Farm	•	•	•	•	•	•				6
Red Rocks/Queen City Park	•	•		•	•	•				5
East Woods Area	•	•	•				•			4
Butler Farm Golf course area	•	•		•						3
Centennial Woods South Burlington	•			•	•					3
Dorset Farm Park area	•	•	•							3
Lakeshore	•	•				•				3
Valley Ridge	•	•			•					3
Winooski River Corridor	•		•					•		3
Juniper Drive Wetlands	•	•								2
Other		•	•	•	•					4
Total # locations	13	12	8	8	8	6	2	3	2	
Total # of reports	37	27	21	11	12	11	2	7	4	

Recommendations for Municipal Actions

Recommendation 1: Establish a protection for large mammals and their habitat.

Core Habitat

Several areas on the map stand out as large, continuous parcels and represent the heart of the best mammal habitat in South Burlington. These areas include: the Winooski River corridor (including the Griswold property and Belter Property); the entire Muddy Brook corridor; the South East Quadrant; north from the Shelburne border through the Calkins property between Spear and Dorset Streets; the lake shoreline including Red Rocks Park; the lands north of Van Sicklen Road and south of the interstate including the wetland area east of Dorset Park.

1. Conduct field efforts to confirm animal presence and movement and to assess the status of mammal populations through Keeping Track® surveys, monitoring, and strategic winter tracking.
2. Work with property owners to improve their functionality for wildlife.
3. Assess and improve neighborhoods that function as wildlife corridors to improve their land's permeability to wildlife.
4. Incorporate the Mammal Habitat and Corridor Map in the future Open Space Planning documents.
5. Maintain working lands, i.e. agricultural lands.

Recommendations for Municipal Actions

The following actions can increase protection for large mammals and their habitat in South Burlington:

1. Ensure long-term protection of core habitat.
2. Make protection of habitat connectivity, including key wildlife corridors, a priority.
3. Conserve habitat for rare, threatened and endangered species. Conserve a sufficient representation of the current diversity of habitats to maintain viable populations of existing species.
4. Establish conservation zones along Muddy Brook corridor and Winooski River corridor, to link those corridors with Shelburne Pond lands.
5. Institute tracking efforts to confirm animal presence and movement and to help assess the status of mammal populations through Keeping Track® transect monitoring and strategic winter tracking.
6. Restore existing town-owned features to improve their functionality for wildlife.
7. Work with people in neighborhoods that function as wildlife corridors to maintain their land's permeability to wildlife.
8. Include a Large Mammal Habitat and Corridor Map in the future Open Space Planning documents.
9. Maintain working lands, i.e. agricultural lands.

John Austin suggests other significant natural resources and their location and land use planning in South Burlington. One way to gauge the viability and value of the land is to consider the other factors to consider in a comprehensive habitat protection.

and for all threatened and endangered species. Large tracts of contiguous habitat that include wetlands, riparian areas, or other habitat for many native mammals and forest interior species. The areas that fall under this category are the land owned by the City, the other lands around the city, and the rest of the City.

APPENDIX I

Recommendation from John Austin

for some plant and animal species that can be used for habitat. The habitats of South Burlington are significant and most are... The habitats include fields, grasslands, and shrub... species dependent on this disappearing... communities such as sand plain forests, ... habitats including grassland and shrub land... wetlands such as lakeshore emergent... rock outcroppings and cliff areas for...

State Wildlife Biologist John Austin suggests other significant natural features to consider in open space and land use planning in South Burlington: While the presence of large mammals is one way to gage the viability and integrity of natural areas, there are other factors to consider in a comprehensive approach to wildlife—such as plant habitat protection.

1. Habitat for rare, threatened and endangered species.
2. Unfragmented lands such as large tracts of contiguous habitat that include a mix of forests, wetlands, riparian areas, or other habitat which support wide ranging mammals and forest interior species. Areas in South Burlington that may fall under this category are the Griswold property, the Calkins property, and the other lands around Muddy Brook in the southeast corner of the City.
3. Riparian areas and wetlands
 - These areas serve critical functions for some plant and animal species and also serve as "linkage habitat" that can be used for connecting other blocks of habitat.
 - All the wetlands in South Burlington are significant and most are significant for wildlife.
4. Agricultural and other open lands include fields, grasslands, and shrub land habitat that support species dependent on this disappearing open/early successional habitat.
5. Unique or significant habitats
 - Includes rare natural communities such as sand plain forests, and clay plain forests.
 - Regionally scarce habitats including grassland and shrub land habitats and certain wetlands such as lakeshore emergent marsh.
6. Special land features such as rock outcroppings and cliff areas for bobcat den habitat, bird nesting habitat, or habitat for rare plants.

Glossary

Large mammal species. A resident wildlife species that requires a relatively large, high-quality, and typically viable population.

Baseline monitoring. Long term assessment of a wildlife population or a habitat with a goal of evaluation of a specific impact. The goal of a baseline monitoring program is to detect population changes that cannot be predicted at the beginning of the program is established.

Core habitat. In conservation biology literature, the term "core habitat" generally refers to an expansion of habitat that provides all the necessary elements of food, water, cover, and suitable space to support a viable population of a species. In this study, the term is defined as an expansion of habitat that provides all the elements necessary to support a resident large mammal on a long-term basis.

APPENDIX II

Core habitat. An expansion of habitat that provides all the elements of habitat for a resident large mammal species in a way that movement between areas of core habitat in a way that movement is not restricted.

Glossary

Exclusion. The removal of a population of animals from an area.

Habitat. The combination of terrain, cover, water and food that constitutes the environment of a particular wildlife species.

Large mammal. For the purposes of this study, the term refers only to the following species: beaver, bobcat, coyote, deer, fisher, fox, moose, mink, muskrat.

Resident. An animal or animal living within an established home range.

Sign. Food material of any animal.

Sign. Any evidence of presence left by an animal. This includes tracks, scat, droppings, claw marks in trees, antler rub marks on trees, urine in snow, etc.

Sighting. Refers to a clear view of an animal that allows for the positive identification of the species.

Track. Refers only to the footprints left by a walking or running animal of any species.

* Some definitions are adapted from Shaw, Hickey and Hunt, Christine (1999) Keeping Tracks: Proper and Data Management Protocol

Glossary⁴

Area-sensitive species: A resident wildlife species that requires a relatively large area to sustain a genetically viable population.

Baseline monitoring: Long term assessment of a wildlife population or a habitat without planned evaluation of a specific impact. The goal of a baseline monitoring program is to detect population changes that cannot be predicted at the time the program is established.

Core habitat: In conservation biology literature, the term "core habitat" generally applies to an expanse of habitat that provides all the necessary elements of food, shelter, water, and adequate space to support a viable population of a species. But, for the purposes of this study, it is defined as an expanse of habitat that provides all the elements necessary to support a resident large mammal on at least a seasonal basis.

Corridor: An area that does not necessarily provide all elements of habitat for a species but connects two or more areas of core habitat in a way that movement of the species between the areas can occur.

Extirpation: The elimination of a population of animals from an area.

Habitat: The entire complex of terrain, cover, water and food that constitutes the area supporting a population of a particular wildlife species.

Large mammal(s): For the purposes of this study, the term refers only to the following species: bear, beaver, bobcat, coyote, deer, fisher, fox, moose, mink, and otter.

Resident: An individual animal living within an established home range.

Scat: Fecal material of any animal.

Sign: Any evidence of presence left by and animal. This includes tracks, scat, scrapes, claw marks in trees, antler rub marks on trees, urine in snow, etc.

Sighting: Refers to a clear view of an animal that allows for the positive identification of the species.

Tracks: Refers only to the footprints left by a walking or running animal of any species.

⁴ These definitions are adapted from Shaw, Harley and Hass, Christine (1999) Keeping Track® Project and Data Management Protocol

Attribute Table for Large Mammals in South Burlington

SPECIES	DATE	LOCATION	SOURCE	SIGN	OBSERVER
coyote	02nd 1976	St. Albans	Systematic reports	Sighting	Carol Dunlop
deer	05/21 1976	St. Albans	Systematic reports	Sighting	Carol Dunlop
fox	10/24/76	St. Albans	Systematic reports	Sighting	Carol Dunlop
deer	05/23 1977	St. Albans	Systematic reports	Sighting	AJ Blair
coyote	04/22/77	St. Albans	Systematic reports	Sighting	William Hanks
fox	4/22/77	St. Albans	Systematic reports	Sighting	Berry Inzava
coyote	1980	St. Albans	Systematic reports	Sighting	Donald Weaver
deer	1980	St. Albans	Systematic reports	Sighting	Donald Weaver
fox	20/80	St. Albans	Systematic reports	Sighting	Donald Weaver
deer	1980	St. Albans	Strategic winter tracking	Tracks	Susan Arlen
moose	01/80	St. Albans	Strategic winter tracking	Tracks	Mark Ward
moose	March 1980	St. Albans	Strategic winter tracking	Tracks	Mark Ward
moose	04/80	St. Albans	Strategic winter tracking	Tracks	Ben Gibbs
moose	March 1980	St. Albans	Strategic winter tracking	Tracks	Susan Young
deer	11/80	St. Albans	Systematic reports	Sighting	Lisa Yarkowski
deer	1/81	St. Albans	Systematic reports	Sighting	Lisa Yarkowski
coyote	March 1981	St. Albans	Systematic reports	Sighting	Mariene Elwin
deer	05/81	St. Albans	Systematic reports	Sighting	Mariene Elwin
deer	05/81	St. Albans	Systematic reports	Sighting	AJ Blair
coyote	05/81	St. Albans	Consultant report	Sighting	Mary Coker's
coyote	05/81	St. Albans	State Report	Tracks	Steve Patten
deer	05/81	St. Albans	Consultant report	Sighting	Mary Coker's
deer	05/81	St. Albans	Consultant report	Sighting	Mary Coker's
deer	05/81	St. Albans	Consultant report	Sighting	Mary Coker's
deer	December 1981	St. Albans	State Report	Footings	Steve Patten
deer	05/81	St. Albans	State Report	Sign	John Austin
fox	05/1981	St. Albans	State Report	Tracks	Steve Patten
moose	05/81	St. Albans	State Report	Sign	John Austin
deer	05/81	St. Albans	Systematic reports	Sighting	Daniel/Martin Ferrans
deer	05/81	St. Albans	Strategic winter tracking	Tracks	Ben Coppen/Tish Fontaine
moose	05/81	St. Albans	Strategic winter tracking	Tracks	Ben Coppen/Tish Fontaine
moose	05/81	St. Albans	Strategic winter tracking	Tracks	Ben Coppen/Tish Fontaine
fox	05/81	St. Albans	Strategic winter tracking	Sighting	Ben Coppen/Tish Fontaine
deer	05/81	St. Albans	Systematic reports	Sighting	Amanda Oswald

APPENDIX III

Attribute Table for Large mammals in South Burlington

Attribute Table for Large Mammals in South Burlington

SPECIES	DATE	LOCATION	SOURCE	SIGN	OBSERVER
coyote	past 4 yrs	Brand Farm Dr Wetland	Eyewitness reports	Sighting/ sound	Carol Dunlop
deer	past 5 yrs	Brand Farm Dr Wetland	Eyewitness reports	Sighting	Carol Dunlop
fox	1999/2000	Brand Farm Dr Wetland	Eyewitness reports	Sighting	Carol Dunlop
deer	last 5 years	Brand Farm Dr Wetland	Eyewitness reports	Sighting	AJ Blair
moose		Butler Farm area	Eyewitness reports	Sighting	William Fiske
fox	4/2001	Butler Farms and 14th hole VT National**	Eyewitness reports	Sighting	Kerry Incavo
coyote	1990	Calkins/Dorset Park	Eyewitness reports	Sighting	Donald Weaver
deer	1998	Calkins/Dorset Park	Eyewitness reports	Sighting	Donald Weaver
fox	2000	Calkins/Dorset Park	Eyewitness reports	Sighting	Donald Weaver
deer	1999	Centennial Woods	Strategic winter tracking	Tracks	Susan Alden
mink	March 4, 2000	Centennial Woods	Strategic winter tracking	Tracks	Mark Ward
mink	March 4, 2000	Centennial Woods	Strategic winter tracking	Tracks	Mark Ward
moose	March 16, 2000	Centennial Woods	Strategic winter tracking	Tracks	Ben Gabos
moose	March, 18, 2000	Centennial Woods	Strategic winter tracking	Tracks	Susan Young
deer	10/29/96	Queen City Park, Central Ave	Eyewitness reports	Sighting	Lisa Yahkowski
deer	10/1/00	Champlain Water District	Eyewitness reports	Sighting	Lisa Yahkowski
coyote	last 5 years	Country Club Estates(N.E. Quad)	Eyewitness reports	Sighting	Marlene Erwin
deer	last 5 years	Country Club Estates(N.E. Quad)	Eyewitness reports	Sighting	Marlene Erwin
deer	October 2000	Country Club VT National Golf Course	Eyewitness reports	Sighting	AJ Blair
coyote	1997	Duppstadt property	Consultant report	Sighting	Mary Capkanis
coyote	December 1997	Duppstadt property	State Report	Tracks	Steve Parren
deer	1997	Duppstadt property	Consultant report	Sighting	Mary Capkanis
deer	1997	Duppstadt property	Consultant report	Sighting	Mary Capkanis
deer	1997	Duppstadt property	Consultant report	Sighting	Mary Capkanis
deer	December 1997	Duppstadt property	State Report	droppings	Steve Parren
deer	July 1997	Duppstadt property	State Report	Sign	John Austin
fox	December 1997	Duppstadt property	State Report	Tracks	Steve Parren
mink	July 1997	Duppstadt property	State Report	Sign	John Austin
otter	December 1997	Duppstadt property	State Report	scat	Steve Parren
otter	July 1997	Duppstadt property	State Report	Sign	John Austin
fox	2001	East of Stonehenge	Eyewitness reports	Sighting	Daniel&Martha Ferraris
coyote	3/16/01	East woods	Strategic winter tracking	Tracks	Ben copans/ Trish Fontaine
fisher	3/16/01	East woods	Strategic winter tracking	Tracks	Ben Copans/Trish Fontaine
fox	3/16/01	East woods	Strategic winter tracking	Sighting	Ben Copans/ Trish fontaine
deer	last 5 years	Griswold property	Eyewitness reports	Sighting	Teresa Griswold

Attribute Table for Large Mammals in South Burlington

otter	3/01	Griswold property	Strategic winter tracking	Track/scat	Ben Copans/Trish Fontaine
mink	April 30, 2001	Hannaford Drive	Eyewitness reports	Sighting	Cynthia Norman
coyote	five yrs ago	Highland Terrace	Eyewitness reports	Sighting	Deborah McGum
deer	five yrs ago	Highland Terrace	Eyewitness reports	Sighting	Deborah McGum
fox	last two yrs	Highland Terrace	Eyewitness reports	Sighting	Deborah McGum
coyote	99/00	Iby Street Park	Eyewitness reports	Sighting	Anita Germaine
moose	1997	Iby Street Park	Eyewitness reports	Sighting	Anita Germaine
deer	2001	Juniper Drive Wetlands	Eyewitness reports	Sighting	Mike and Beth Papariello
fox	2001	Juniper Drive Wetlands	Eyewitness reports	Sighting	Mike and Beth Papariello
beaver	87'-00'	Just West of M.B. on Van Sicklen	Eyewitness reports		Vicki Frasier
beaver	April 23, 2001	Lakeshore	Eyewitness reports	Sighting	Mary Silverman
deer	1999-2000	Lakeshore	Eyewitness reports	Sighting	Mike Lipson
fox	2000	Lakeshore	Eyewitness reports	Sighting	Mike Lipson
beaver	87'-00	M. B South Van Sicklen	Eyewitness reports		Victoria Frasier
bobcat		M. B South Van Sicklen	Eyewitness reports	Sighting	Adian Forsyth
coyote	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
deer	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
fisher	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
fox	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
mink	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
moose	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
otter	1994	M. B South Van Sicklen	Consultant report		Vicki Frasier
beaver	87'-00'	M.B. North of Van sicklen	Eyewitness reports		Vicki Frasier
coyote	1994	M.B. North of Van sicklen	Consultant report		Vicki Frasier
deer		M.B. North of Van sicklen	Consultant report		Vicki Frasier
otter	1994	M.B. North of Van sicklen	Consultant report		Vicki Frasier
mink	1994	M.B. west of brook in development	Consultant report		Vicki Frasier
coyote	1994	M.B. West of brook on Van sicklen	Consultant report		Vicki Frasier
beaver	last 5 years	Muddy Brook, west of 116 (map)	Eyewitness reports	Sighting	John Pennucci
coyote	many times at quarry	Quarry Hill Rd. (near quarry)	Eyewitness reports		Miriam Oakes
fox	2000	Quarry Hill Rd. (near quarry)	Eyewitness reports	Sighting	Miriam Oakes
deer	10/1/00	Queen City Park	Eyewitness reports	Sighting	Lisa Yahkowski
fox	1999	Queen City Park	Eyewitness reports	Sighting	Lisa Yahkowski
fox	2001	Queen City Park	Eyewitness reports	Sighting	Lisa Yahkowski
beaver	spring/summer 99&00	Queen city park (potash brook)	Eyewitness reports	Sighting	Sharon Behar/Fred Kosnitsky
deer	winter 99&00	Queen city park (potash brook)	Eyewitness reports	Sighting	Sharon Behar/Fred Kosnitsky
fox	winter 99&00	Queen city park (potash brook)	Eyewitness reports	Sighting	Sharon Behar/Fred Kosnitsky
mink	Jan/Feb 01	Queen city park (potash brook)	Eyewitness reports	Sighting	Sharon Behar/Fred Kosnitsky
deer	10/29/96	Red Rocks Park	Eyewitness reports	Sighting	
deer	1995	Red Rocks Park	Strategic winter tracking	Sighting	

Attribute Table for Large Mammals in South Burlington

fox	2000	Red Rocks Park	Strategic winter tracking	Tracks	Jeff Serenson
fox	2000	Red Rocks Park	Strategic winter tracking	Tracks	Jeff Serenson
mink	2000	Red Rocks Park	Strategic winter tracking	Tracks	Jeff Serenson
moose	1998	Red Rocks Park	Strategic winter tracking	Sighting	Alicia Daniels
moose	1999	Red Rocks Park	Strategic winter tracking	Sighting	Alicia Daniels
fox	2001	Ridgewood	Eyewitness reports	Sighting	Donald Weaver
moose	1999	St George Rd Van Sicklen RD	Eyewitness reports	Sighting	Karin Davis
beaver	early spring not often/discouraged	S.E. Quadrant	Eyewitness reports	Sighting	Gordon and Barbara Allen
beaver	last 5 yrs	S.E. Quadrant	Eyewitness reports	Sighting	Todd Riehl
beaver	last five years	S.E. Quadrant	Eyewitness reports	Sighting	John Pennucci
bobcat	February-01	S.E. Quadrant	Eyewitness reports	track	John Pennucci
bobcat	winter, 2000-2001	S.E. Quadrant	Eyewitness reports	Tracks	John Pennucci
bobcat	winter, 2000-2001	S.E. Quadrant	Eyewitness reports	Tracks	John Pennucci
coyote	hear often	S.E. Quadrant	Eyewitness reports	Sighting once	Ann and Stan Emery
coyote	last 5 yrs	S.E. Quadrant	Eyewitness reports		Todd Riehl
coyote	last five years	S.E. Quadrant	Eyewitness reports	Tracks(no dogs in area)	Harry &Ann Yawney
coyote	last five years	S.E. Quadrant	Eyewitness reports		John Pennucci
coyote	not during past several yrs	S.E. Quadrant	Eyewitness reports		Gordon and Barbara Allen
coyote	over the yrs	S.E. Quadrant	Eyewitness reports	Sighting/Tracks voices	Carolyn Long
coyote	regularly	S.E. Quadrant	Eyewitness reports		Laura DeMaroney
deer	9/99	S.E. Quadrant	Eyewitness reports		Laura DeMaroney
deer	last 5 yrs	S.E. Quadrant	Eyewitness reports		Todd Riehl
deer	last five years	S.E. Quadrant	Eyewitness reports	Tracks/bed	Harry &Ann Yawney
deer	last five years	S.E. Quadrant	Eyewitness reports	Sighting	John Pennucci
deer	last five years	S.E. Quadrant	Eyewitness reports	Sighting	John Pennucci
deer	last five years	S.E. Quadrant	Eyewitness reports	Sighting	John Pennucci
deer	last two years	S.E. Quadrant	Eyewitness reports		Gordon and Barbara Allen
fox	last 5 yrs	S.E. Quadrant	Eyewitness reports		Todd Riehl
fox	numerous Sightings	S.E. Quadrant	Eyewitness reports		Gordon and Barbara Allen
fox	over the yrs	S.E. Quadrant	Eyewitness reports	Sighting	Carolyn Long
fox	summer 2000	S.E. Quadrant	Eyewitness reports	Sighting	Ann and Stan Emery
mink	rarely but do see	S.E. Quadrant	Eyewitness reports		Gordon and Barbara Allen
moose	9/99	S.E. Quadrant	Eyewitness reports		Laura DeMaroney
otter	last 5 yrs	S.E. Quadrant	Eyewitness reports		Todd Riehl
otter	not often/few days at a time	S.E. Quadrant	Eyewitness reports		Gordon and Barbara Allen
deer	often	S.E. Quadrant	Eyewitness reports	Sighting	John Pennucci

Attribute Table for Large Mammals in South Burlington

fox	January-00	Spear St near Overlook Park	Eyewitness reports	Sighting	Martha Ferraris
coyote	spring summer 98	Sugar tree condos	Eyewitness reports	Sighting	Tricia Lyon
fox	March 01	Sugartree condos	Eyewitness reports	Sighting	Tricia Lyon
deer	summer 00	Swift St. & Spear St. (~500 ft)	Eyewitness reports	Sighting	Kim Greenwood
deer	10/00	Swift Street	Eyewitness reports	Sighting(one hit)	Sharon Wheelock
beaver	last 5 years	UVM Dairy Farm	Eyewitness reports	Sighting	Greg Eurich
deer	last 5 years	UVM Dairy Farm	Eyewitness reports	Sighting	Greg Eurich
deer	last 5 years	UVM Dairy Farm	Eyewitness reports	Sighting	Greg Eurich
fox	last 5 years	UVM Dairy Farm	Eyewitness reports	Sighting	Greg Eurich
mink	last 5 years	UVM Dairy Farm	Eyewitness reports	Sighting	Greg Eurich
moose	last 5 years	UVM Dairy Farm	Eyewitness reports	Sighting	Greg Eurich
beaver	last 5 years	UVM Horticulture Farm	Eyewitness reports	Sighting	Greg Eurich
coyote	last 5 years	UVM Horticulture Farm	Eyewitness reports	Sighting	Greg Eurich
deer	last 5 years	UVM Horticulture Farm	Eyewitness reports	Sighting	Greg Eurich
fox	last 5 years	UVM Horticulture Farm	Eyewitness reports	Sighting	Greg Eurich
mink	last 5 years	UVM Horticulture Farm	Eyewitness reports	Sighting	Greg Eurich
moose	last 5 years	UVM Horticulture Farm	Eyewitness reports	Sighting	Greg Eurich
deer	January 8, 2000	Valley Ridge	Strategic winter tracking	Tracks	Mark Ward
fox	January 8, 2000	Valley Ridge	Strategic winter tracking	Tracks	Mark Ward
fox	March 4, 2000	Valley Ridge	Strategic winter tracking	Tracks	Mark Ward
mink	March 4, 2000	Valley Ridge	Strategic winter tracking	Tracks	Mark Ward

Burlington Large Mammal Habitat & Corridor Project
Strategic Winter Tracking Protocol

The primary purpose of this protocol is to help document the distribution of large mammals in the Burlington area. Strategic winter tracking is to help document the distribution of large mammals in the Burlington area. We have broken down the City into several zones and assigned each zone to a specific person. After a snowfall, visit the locations in your zone and record any tracks or signs you encounter. Record the information and submit it to the Vermont Valley Park District office. When making your observations, keep in mind locations where tracks or signs are most likely to be found (by roads, humans, dogs, etc.) should be visited first.

- 1. Record the date and time of your observations.
- 2. Record the location of your observations (road name, mile marker, etc.).
- 3. Record the species of tracks or signs you observed (fox, mink, bobcat, fisher, etc.).
- 4. Record the direction of travel (if applicable).
- 5. Record any other information that may be helpful (e.g., weather conditions, time of day, etc.).

APPENDIX IV

Strategic Winter Tracking Protocol

- 1. The purpose of this protocol is to help document the distribution of large mammals in the Burlington area.
- 2. We have broken down the City into several zones and assigned each zone to a specific person.
- 3. After a snowfall, visit the locations in your zone and record any tracks or signs you encounter.
- 4. Record the information and submit it to the Vermont Valley Park District office.
- 5. When making your observations, keep in mind locations where tracks or signs are most likely to be found (by roads, humans, dogs, etc.) should be visited first.
- 6. Record the date and time of your observations.
- 7. Record the location of your observations (road name, mile marker, etc.).
- 8. Record the species of tracks or signs you observed (fox, mink, bobcat, fisher, etc.).
- 9. Record the direction of travel (if applicable).
- 10. Record any other information that may be helpful (e.g., weather conditions, time of day, etc.).

Large Mammal Habitat & Corridor Project
Strategic Winter Tracking Protocol

Thanks for your assistance with the Burlington large mammal habitat & corridor project. The idea behind strategic winter tracking is to help document the use of corridors in Burlington. We have broken down the City into several zones and are counting on you to help. After a snowfall, visit the locations in your zone and document tracks and sign that you encounter. Record the information and send or deliver it to the Winooski Valley Park District office. When making your outings to spot-checking sites keep in mind locations where tracks or sign are likely to be obscured (by wind, humans, dogs, etc.) should be visited first.

The following should help guide your information gathering:

Species to be monitored:

- Any Keeping Track species (bear, moose, otter, mink, bobcat, fisher)
- beaver
- fox
- deer
- coyote

Information to record:

- Date of your outing.
- Describe tracking conditions (i.e. time since snowfall, other substrates, etc).
- Type of sign.
- Measurements of track size, stride length, or other information that helped you decide which species you observed.
- Briefly describe how you ruled out other similar species.
- Record the location of the sighting on a map or make a sketch of the landscape features that will help someone else mark the exact location on a map.
- Photographs (or slides) of sign are also helpful especially if they include an identifiable Burlington feature.
- Take note of any obstructions to animal movement at any of the sites that you visit (for example: fences, blocked culverts, etc.).



Large Mammal Eye-Witness Report South Burlington, Vermont

- 1. Please fill out and return to the below address. Call or email with any questions, and feel free to have copies of this form for each sighting.
- 2. If you see the same species on different occasions in the same location, give different dates for each sighting.
- 3. If you have seen multiple species in different locations, we need to track each species by location.
- 4. If you see 2 or more species at the same location, list the species and include dates that each were seen.



Date of sighting: _____

Species ID: _____

Beaver	Moose	Chickadee	Mink	Bobcat
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Notes:

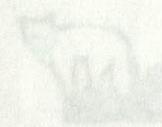
APPENDIX V

Eye-Witness Report Form

Location: _____ Map if possible. We can work with you to determine the location.

Did you see any tracks, paw prints, or sign of it?

What did you see that helped you identify this species and how did you rule out other species? (e.g., color, size, shape, etc.)



If you have any photos, please include them as they help others verify your report.



Please send forms and reports to: Wingside Valley Park District, Eihan Allen
 100 West Hill, Burlington, Vermont 05401
 Or contact Tom Postone 1-800-374-4444, or pd@wingside.net or fax 802-664-7000



Large Mammal Eyewitness Report

South Burlington, Vermont

Please fill out, send or fax it to the below address. Call or email with any questions, and feel free to make copies of the form for each sighting.

- If you see the same species on numerous occasions in the same location, give dates of the most recent sightings.
- If you have seen multiple species in different locations, we need to track each species by its specific location.
- If you have seen multiple species in the same location, list the species and indicate dates that each were seen.



Date or date's of sighting (s):

Species Name: (Circle)

Bear

Moose

Otter

Mink

Bobcat

Fisher

Beaver

Fox

Coyote

Deer

Other:

Specific location and directions (Indicate location on a map if possible. We can also send you a map of your area.)

Did you see this animal or observe tracks or sign of it?

What field characteristics were used to identify this species and how did you rule out other similarly looking animals: (Be as specific as possible. If applicable, include tracking conditions, track size, etc.)



If you have any photographs please include them as they allow others to verify your report.



Name
Address
Phone Number

Please send completed reports to: **Winooski Valley Park District, Ethan Allen Homestead, Burlington, Vermont 05401**

Or contact Trish Fontaine at 863-5744, wvpd@together.net or fax 865-0647

Art by Bonnie Acker