



Vermont Furbearer Management Newsletter



Volume 1, Issue 3

October 2000

The MISSION of the Vermont Department of Fish and Wildlife is the conservation of fish, wildlife, and plants and their habitats for the people of Vermont. In order to accomplish this mission, the integrity, diversity, and vitality of all natural systems must be protected.



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Beaver Season Expansion

Beginning this fall, the beaver and otter seasons will be expanded. Between 40% to 50% of the beaver harvested are taken as “nuisance” animals. In many cases, increases in wildlife/human conflicts results in a decline in the public’s acceptance, support, and tolerance of wildlife. In an effort to minimize human/beaver conflicts and to encourage the harvesting of beaver during a time of year when they can be appropriately utilized, the Department responded to a request by the Vermont Trappers Association to expand the season. As many of you may remember, a questionnaire was sent out with last year’s Trapper Mail Survey. The results were quite mixed (some preferring a starting date in late October and others preferring a December opening date). Based on some information the Department gathered regarding pelt primeness and value, we decided (with the endorsement of the VTA Board of Directors) to propose a season beginning December 1 and running through the 4th Saturday in February. This will also result in an expansion of the otter season. We will closely monitor the otter harvest and, if the 2-week extension negatively influences the otter population, recommendations may be made to limit the otter take in the future.



NOTE:
CHANGE TO BEAVER SEASON BEGINNING FALL OF 2000
Season Opens December 1, 2000 and runs through the 4th Saturday in February 2001. This also results in a 2-week extension to the otter season.

Best Management Practices

Four Vermont trappers are again participating this fall in the national trap testing effort to develop Best Management Practices (BMP’s) for trapping. The development of trapping BMP’s is perhaps one of the most ambitious wildlife management projects in history. Best Management Practices are a way to improve animal welfare among captured animals and to sustain regulated trapping. BMP’s for trapping will serve as a standard that can be voluntarily adopted and used by state and federal wildlife agencies, trapper organizations, and individuals to improve trapper education and furbearer management programs. Over the past three years, 32 different models of traps were tested across 21 states. During the 1997/98 season 3,953 furbearers were captured. In all studies combined, nearly 92% of all captures were legal furbearers. There were no captures of any rare, threatened, or endangered species. This year an additional 7 states will take part in the study bringing the total number of participating states to 28. Vermont has been involved since the beginning and this year will be testing 4 trap types with a focus on red fox.

As a result of the testing that has been done on coyotes in the east during the 1997/98 season, a draft eastern coyote BMP will be available for review in March. The Vermont Trap Standards Committee (made up of state and federal wildlife biologists, trappers, a veterinarian, and a legislator) will be working on ways to get feedback from trappers on the draft. Look for information this spring.

Harvest Information for the 1999-2000 Season

A total of 29 bobcat (including 10 animals which died of starvation or motor vehicle accidents), 344 fisher, and 113 otter were reported and pelt-sealed by law enforcement personnel during the 1999-2000 season. According to the trapper mail survey, 1,570 beaver were harvested in that same period, 50% of which were taken as a result of human/beaver conflicts. Table 1 compares the harvests of these four species since the 1988-89 season. Figures 1-3 (page 3) indicate the distribution of the kill by Wildlife/Watershed Unit for bobcats, otter, and fisher. The mandatory Trapper Mail Survey provides information critical to maintaining sustainable furbearer populations in Vermont. Because harvest figures are more often a reflection of trapper effort than actual furbearer populations, it is very important that we understand something about the amount of effort going into trapping a specific species. Although the number of licenses sold is an indicator of effort, it may not reflect the year-to-year variation in trap nights (# traps X # nights). Table 2 below shows the average price paid per pelt. Figures 4 and 5 (page 4) show the number of licenses sold since 1971 and the variability in the effort applied to fisher trapping since 1986, respectively.

Table 1. Vermont bobcat, fisher, otter, and beaver harvests by year from pelt-tagged records.

Year	Bobcat	Fisher	Otter	Beaver
1988-89	35	400	129	1,345
1989-90	27	93	124	1,640
1990-91	20	225	105	1,137
1991-92	9	151	125	1,070
1992-93	28	247	140	1,060
1993-94	21	218	150	484
1994-95	15	288	207	1,521
1995-96	24	103	136	517
1996-97	20	250	232	3,237*
1997-98	31	630	196	2,958*
1998-99	17	387	161	2,341*
1999-00	29	344	113	1,670*

*based on response to recently implemented trapper mail survey



Table 2. Average price per pelt paid to Vermont trappers by species. *Source: Trapper Mail Survey.*

Species	1996-97	1997-98	1998-99	1999-00
Mink	19.40	13.35	8.89	10.07
Raccoon	15.40	14.31	9.76	5.84
Red Fox	19.11	18.75	13.24	12.07
Gray Fox	12.50	14.38	8.95	10.75
Skunk	4.12	2.18	2.15	3.00
Muskrat	4.13	3.11	1.34	2.07
Coyote	19.43	17.35	12.64	12.00
Beaver	26.66	22.61	14.45	17.92
Nuisance Beaver	19.92	21.04	14.29	16.45
Fisher	34.42	36.17	22.50	19.16
Otter	45.51	42.85	34.29	39.12
Bobcat	32.50	28.83	67.50	—



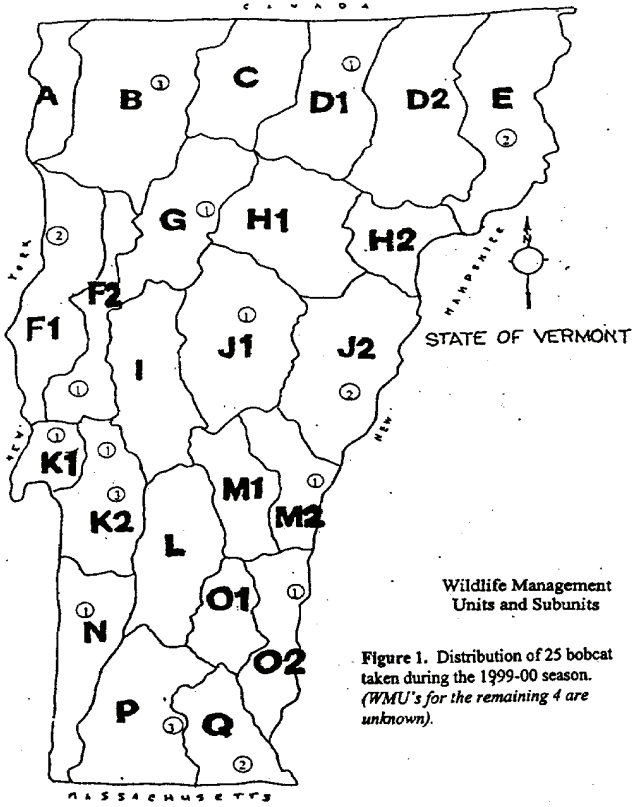


Figure 1. Distribution of 25 bobcat taken during the 1999-00 season. (WMU's for the remaining 4 are unknown).

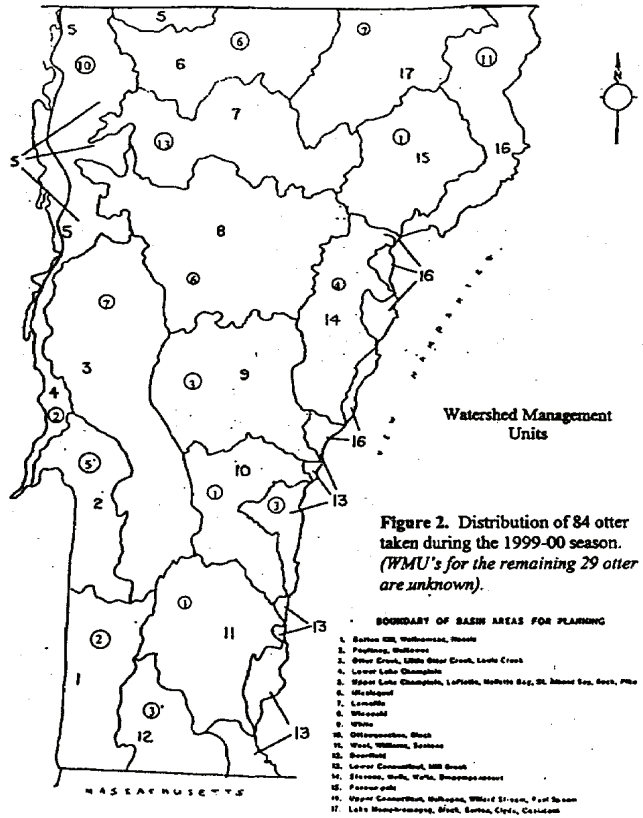


Figure 2. Distribution of 84 otter taken during the 1999-00 season. (WMU's for the remaining 29 otter are unknown).

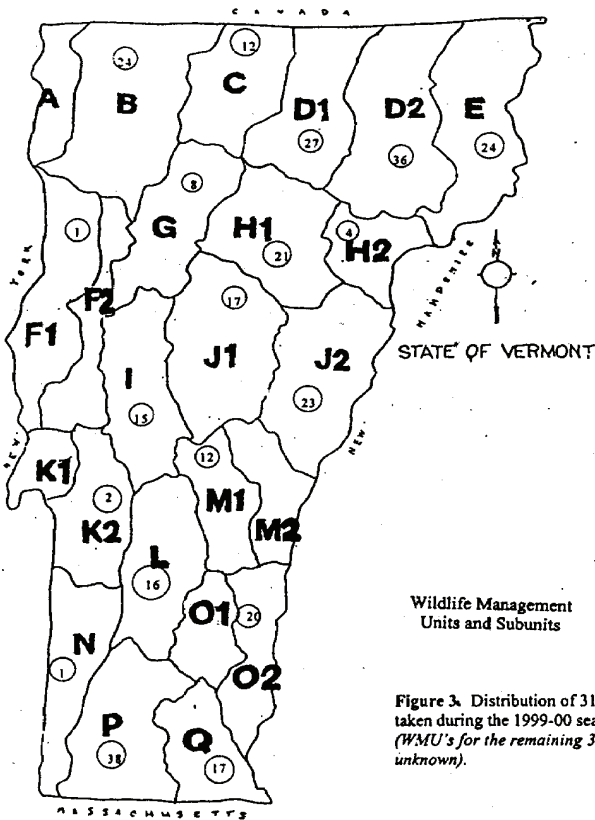


Figure 3. Distribution of 315 fisher taken during the 1999-00 season. (WMU's for the remaining 31 are unknown).

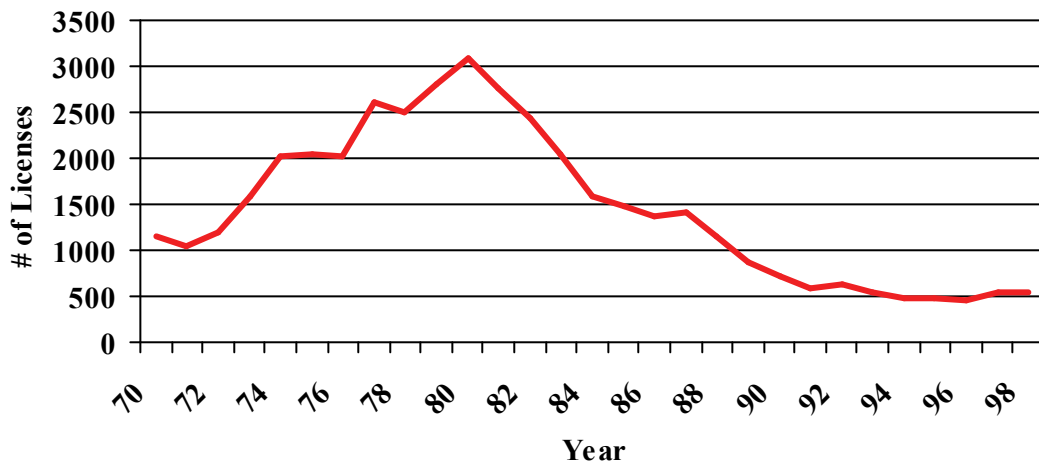


Figure 4. Total Number of Resident Trapping License Sales in Vermont by Calendar Year.

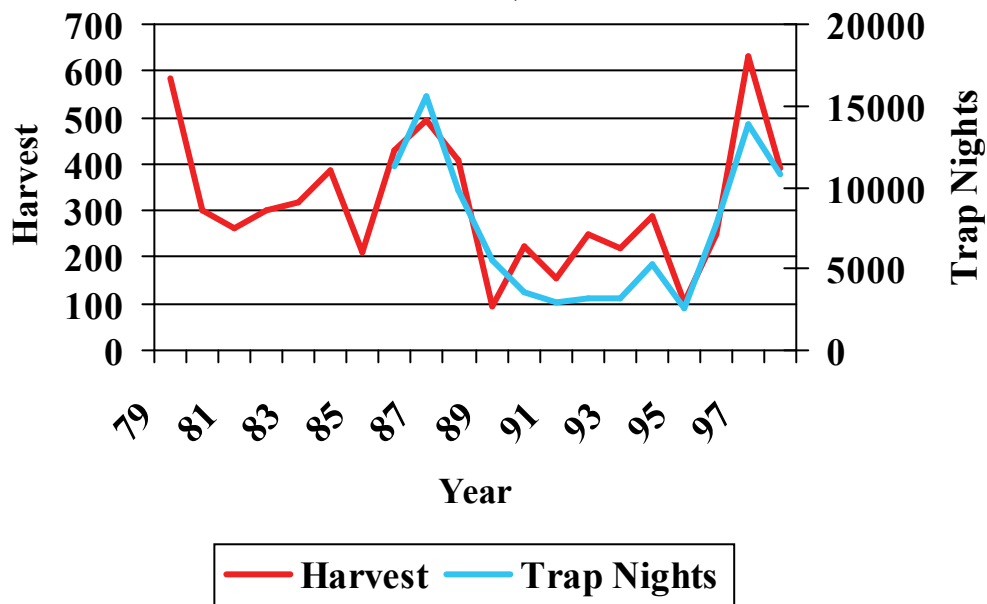
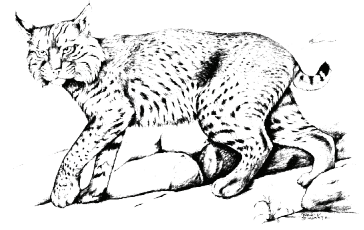


Figure 5. Comparison of Fisher Harvest and Trapper Effort.



Featured Species: Bobcat (*Lynx rufus*)



It is unclear as to what the status of the bobcat population in Vermont was prior to European settlement. However, in the 1500s, 1600s, and 1700s bobcats had to compete with other predators such as the wolf, mountain lion, fisher, and marten. In addition, throughout the 1500s-1800s the climate was much more severe in New England than it is now. In fact, 300 years ago Valley Forge, Pennsylvania had weather conditions similar to those experienced in Quebec today.

Because the bobcat is at the northern edge of its range, it is unlikely that it was able to compete very effectively with lynx and mountain lion in those regions of Vermont where deep, fluffy snow conditions were the norm. It is possible, therefore, that fewer bobcats existed in Vermont before the settlers arrived than are here today. It is also quite likely, however, that there are fewer bobcats in Vermont today than there were in the early part of the 20th century (1930s through 1970s).

The extirpation of the wolf, mountain lion, and fisher left a predator void that was quickly filled by the bobcat. The lack of competition, coupled with the increase in prey species like deer and snowshoe hare (resulting from huge acres of brushy habitat created as farms reverted to forestland), set the stage for significant increases in bobcat numbers throughout the first half of the century. During this period there was a bounty on the bobcat. In 1856 the bobcat (listed as the bay lynx) was added to the bounty law by the legislature. Bobcats were bountied until 1971 and an average of almost 200 bobcats were taken per year from 1933 through 1969. The first regulated season on bobcats began in 1976. Today bobcats again find themselves competing with other predators for food and space. The expansion of coyotes into Vermont and the return of the fisher have made life for the bobcat more challenging and perhaps more similar to the earlier centuries when wolves and mountain lions were around. A deer killed in the winter, in many cases, can no longer be cached for days at a time. Often within hours other predators and scavengers arrive to feed. Survival through the snowy winter periods requires more work and energy expenditure than in those decades when the bobcat was 'top cat.'

Description

The bobcat averages 15 to 20 pounds, with some weighing close to 40 pounds. Average length is 27 inches. Males are generally larger than females. The dense fur often gives the impression of a larger animal. This fur appears reddish in summer and grayer in winter. The insides of the legs and underparts are white with black spots. Upper parts are gray or buff with black spots and streaks, which are heaviest on the spine and lighter on the sides. The hind legs are buff and the front legs are heavily barred. A short bob tail, generally 8 to 12 centimeters long has black bars on the upper side. Facial markings appear similar to a domestic tiger cat. The muzzle, ears, and eyelids appear white. Ear tufts may emerge from the tips of the ears and are thought to aid in hearing. The feet are bare on the bottom and heavily furred on the top, leaving tracks that appear similar to those of a house cat's, but are larger.

Reproduction

During the mating season, which is usually late March through early April in Vermont, a female generally mates with several toms. The males do not stay with the female, but leave shortly after mating. Following a gestation period of about 60 days, the female gives birth to two or three blind kittens. At two weeks, the kittens' eyes are open and at two months they have a permanent coat. These kittens stay with their mother for six to eight months and then search out habitat on their own. Bobcats remain sexually active until death, which is usually between 8 to 12 years old in the wild.

Food Habits

Bobcats prey on a wide variety of species. However, small mammals and birds make up a large part of a bobcat's diet. Deer are also used as a food source, often as carrion.

Habitat Preferences

The bobcat relies on areas where shelter and adequate food sources are available. In Vermont these areas are generally forested with areas of rocky cliffs and ledges and scattered swamps.

Wildlife Congress Working Toward A Common Vision for Vermont

On September 11th the Vermont Fish and Wildlife Department hosted a "Wildlife Congress." A variety of individuals and interest groups were invited to the Congress including hunters, trappers, foresters, loggers, farmers, planners, developers, and organizations such as Audubon, the Vermont Land Trust, the National Wildlife Federation, and The Nature Conservancy. The goal of the Congress was: To find common ground through the development of a land ethic vision for Vermont and to develop strategies for protecting and conserving the undeveloped lands needed by Vermont's wildlife. Participants were asked what their vision was for the Vermont their grandchildren would live in. Not surprisingly, the responses were astoundingly similar. The most common vision by far was for a Vermont very similar to the one we are lucky enough to live in today. It was the Department's hope that the participants would come to recognize that this larger vision for the future of Vermont transcends many of their smaller philosophical differences. The writings and philosophies of Aldo Leopold, considered by many to be the father of Wildlife Management, served as a theme for the Congress. Many of these philosophies can be found in Leopold's famous book, "*A Sand County Almanac*." The Department will provide a free copy of the book to anyone interested in owning a copy. Please call Kim Royar at 885-8831 if you are interested.

"The stage, in short, is set for somebody to show that each of the various public interests in land is better off when all cooperate than when all compete with each other." Aldo Leopold

Fish and Wildlife Department's Land Ethic Vision

The land connects Vermont's landscape, animals, and plants—our natural communities— and its people—our social community—into a single tapestry of life. By living in harmony with the land, Vermont's people gain benefits, some visible, and others ephemeral. In turn, all Vermonters are bound to keep the land in trust, both for its intrinsic ecological value, and for its value as a resource for our grandchildren. The Vermont Department of Fish and Wildlife shares with all Vermonters the responsibility to actively promote the conservation of the land and to continually seek ways for Vermonters to live on, use, and enjoy it ethically and sustainably.

U.S. Fish and Wildlife Service Nulhegan Basin Refuge

As many of you already know, a draft Environmental Assessment regarding trapping on the U.S. Fish and Wildlife Service Nulhegan Basin Refuge was released for public comment at the end of August. The document identified four alternatives related to trapping on the refuge. The comment period ended September 29, 2000, and the Refuge Manager sent the final package to the Regional Director of the U.S. Fish and Wildlife Service for approval on October 6th. If approval is obtained, all of the refuge will be open for trapping in accordance with State of Vermont seasons and regulations. Anyone interested in trapping on the refuge should submit their name, address, and phone number to Refuge Manager Keith Weaver. As soon as approval is granted, Keith will issue Special Use Permits (no fee involved). All trappers on the refuge must have a Special Use Permit issued by the Refuge Manager.

Keith Weaver
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Nulhegan Basin Division
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Island Pond, VT 05846
Telephone: 802-723-4398
E-mail: keith.weaver@fws.gov

THANK YOU, THANK YOU

trappers, game wardens, furbearer team members, and trap standards committee members for your help in the management and conservation of Vermont's furbearers



Beaver Baffles

The Vermont Fish and Wildlife Department is involved in a cooperative pilot project with the U.S. Fish and Wildlife Service and USDA, Wildlife Services. The goal is to minimize human-beaver conflicts and conserve important wetland values through the installation of water control structures. The “beaver baffle” in the following pictures was constructed in the town of Wardsboro with the help of local townspeople and members of local selectboards and town road crews. Water control structures do not eliminate the need for beaver population control, but they sometimes manipulate water levels enough to allow for the preservation of wetlands which provide critical habitat for so many species including muskrat, otter, mink, waterfowl, herons, and many songbirds. Although the structures require some maintenance and don't work in all situations, they often eliminate the constant battle town road crews fight — the regular need to pull beaver dams in areas where a wetland threatens a road or culvert.

At this point in time, the Department is not staffed to provide this service to everyone with a problem. However, these sites provide demonstration areas for those folks who might want to try the technique. For more information, contact us at 885-8831.



The Fish and Wildlife Department Saving Our Heritage of Open Landscape

The Fish and Wildlife Department's Habitat Assessment Team is writing a document on the Effects of Sprawl Development on Vermont's fish and wildlife. The document will be available to local and regional planning commissions so wildlife and open space concerns can be incorporated into town plans. The following are some excerpts from the document.

A recent report from the U.S. Environmental Protection Agency showed that, from 1982 to 1992, Vermont lost 6,500 acres per year of open space to development, and that pace is increasing.

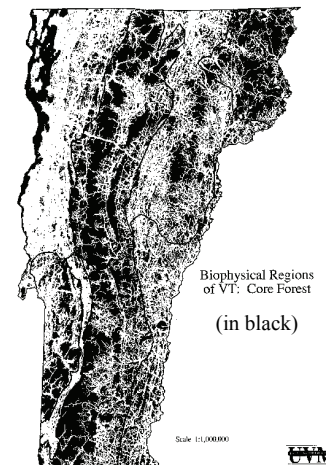
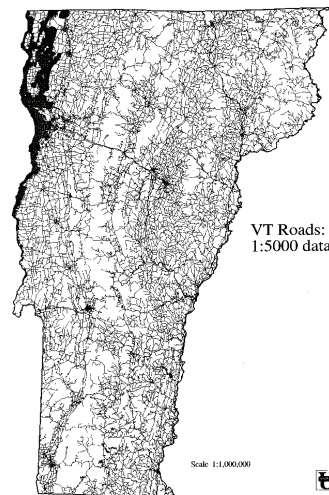
Wildlife and the open space that supports it are important to the rural culture and character of Vermont. Fish, wildlife, plants, and natural areas are integral components of Vermont's identity. Since the settling of Vermont, plants and animals have provided food, clothing, tools, endless enjoyment, and a spiritual connection to our landscape. For many people, simply knowing the black bears roam the woods of Mount Mansfield, pink lady's-slipper blooms in the Northeast Kingdom, or that loons nest on Somerset Reservoir is important to their quality of life in Vermont.

Unfortunately, according to a report published by the Vermont Forum on Sprawl in 1999, the rate of development in Vermont is 2.5 times greater than the rate of population growth indicating that Vermont is needlessly developing portions of its landscape which reduces the land's capacity to support, fish, wildlife, and natural systems. Much of this development is dispersed in rural areas instead of within existing village and urban communities.

In 1998, the Vermont Environmental Board issued nearly 2000 permits for new home construction alone. This constitutes a 19.5% increase from the previous year.

Not only has dispersed development eroded social communities, it has also fragmented the landscape in ways that are having devastating effects on our wildlife and our rural culture that is based on a strong connection to the presence, use, and enjoyment of fish, wildlife, and natural areas. These effects on our fish, wildlife, and natural areas include habitat fragmentation, loss of habitat, introduction of exotic species, and loss of natural species diversity among others.

Although these problems are very serious and the solutions extremely complex, the Department works hard to limit the effects of fragmentation. Department biologists seek out opportunities to work with landowners, foresters, planning commission members, and others to conserve Vermont's valuable wildlife habitat and natural communities.



Bobcat Study Underway

The University of Vermont, in cooperation with the Vermont Fish and Wildlife Department is conducting a genetics study on bobcats in Vermont. The objectives of the study are: (1) to determine whether the bobcat population is a single population or whether there are identifiable subpopulations, (2) if there are subpopulations, to determine whether these are associated with geographic barriers (e.g. rivers or mountains) or man-made barriers (e.g. major highways), (3) to estimate the size of the population or populations. The University would also like to expand the study to include fisher and coyote so they can compare the populations of these species against what they find out about the status of the bobcat population. Tissue samples from bobcat and fisher turned in by hunters, trappers, and wardens will be used for genetic testing. If anyone is willing to supply tissue from coyotes, please contact Kim Royar or Paul Hapeman from the University of Vermont (*see box for details*).

Information Needed for Coyote Genetics Study

To collect a coyote tissue sample, cut two dime-size pieces out of the tongue, deep into the muscle. Fill out the label to the right with the date the animal was taken and the town and the wildlife management unit in which it was killed. Place sample in a plastic baggy and place in the freezer. Call, write, or e-mail Kim Royar (tel. #802-885-8831, e-mail: kim.royar@anrmail.anr.state.vt.us) or Paul Hapeman, Department of Biology, UVM Burlington 05405-0086 (tel. #802-656-6453).

Name (*optional*) _____

Town Killed _____

Date Killed _____

Male Female

WMU Killed _____

Smothered Muskrat and Onions

1 muskrat
1 tbsp salt
1 quart water
1 1/2 tsp salt
1/4 tsp paprika
1/2 cup flour
3 tbsp fat
3 large onions; sliced
1 cup sour cream



SERVES: 4

Yield: 4 servings

Skin and clean the muskrat, remove fat, scent glands, and white tissue inside each leg. Soak muskrat overnight in a weak brine solution of 1 tbsp salt to 1 quart water. Drain, disjoint, and cut up. Put flour, salt, and paprika in a paper bag. Add muskrat pieces and shake until each piece is well coated. Melt fat in heavy fry pan, add the muskrat pieces, and sauté slowly until browned. When meat is browned, cover with onions, sprinkle with salt and pepper, and pour the cream over. Cover fry pan and simmer for 1 hour.

Source: *The Northern Cookbook* from the Ministry of Indian Affairs, Ottawa, Canada, edited by Eleanor A. Ellis

Check Out These Web Sites

Vermont Department of Fish and Wildlife

<http://www.anr.state.vt.us/fw/fwhome>

Vermont Trappers Association

<http://homepages.together.net/~lrk/VTA.html>

Vermont Outdoors Magazine

<http://www.vermontoutdoors.com>

National Trappers Association

<http://www.nationaltrappers.com>

Furbearers Unlimited

<http://www.furbearers.org>

Fur Takers of America

<http://www.furtakersofamerica.com>



The Vermont Agency of Natural Resources is an equal opportunity agency and offers all persons the benefits of participation in each of its programs and competing in all areas of employment, regardless of race, color, religion, sex, national origin, age, disability, sexual preference, or other non-merit factors.

This publication is available upon request in large print, braille, or audio cassette.

**VERMONT FURBEARER
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