

Vermont Furbearer Management Newsletter

Volume 1, Issue 2

November 1999



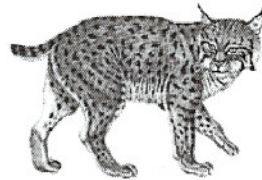
1998-99 Fisher, Otter, Bobcat, and Beaver Distribution

A total of 17 bobcats, 387 fisher, and 161 otter were reported and pelt-sealed by law enforcement personnel during the 1998-99 season. The requirement to pelt-seal beaver was eliminated in 1996-97, and a mandatory trapper mail survey was implemented that collects information on all trapped species including beaver. According to this year's survey, a total of 2,341 beaver were taken in 1998-99. Forty-six percent of those were trapped as a result of human/beaver conflicts. Table 1 compares the most recent harvest by species since the 1988-89 season. Figures 1-3 indicate the geographic distribution of kill by Watershed or Wildlife Management Unit for bobcats, otter, and fisher (see page 2).

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*

*based on response to recently implemented trapper mail survey



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Trapper Mail Survey

The information we collect from the Trapper Mail Survey (TMS) is one of the keys to more accurately monitoring Vermont's furbearer populations. The Fish and Wildlife Department supports trapping and the utilization of wildlife as a renewable resource as long as we can ensure sustainable populations for future generations. When you take the time to fill out your trapper mail

survey and return it to us, you are contributing to the long-term maintenance of these wildlife populations, as well as to the future of trapping. Table 2 shows the price per pelt paid to Vermont trappers. Figure 4 shows the relationship between the Vermont otter harvest and trapper effort.

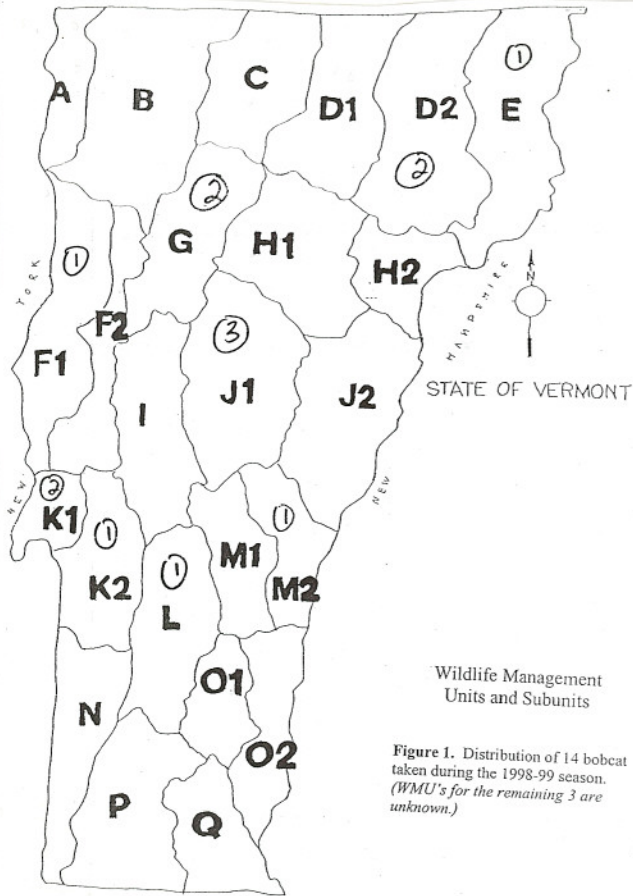


Figure 1. Distribution of 14 bobcat taken during the 1998-99 season. (WMU's for the remaining 3 are unknown.)

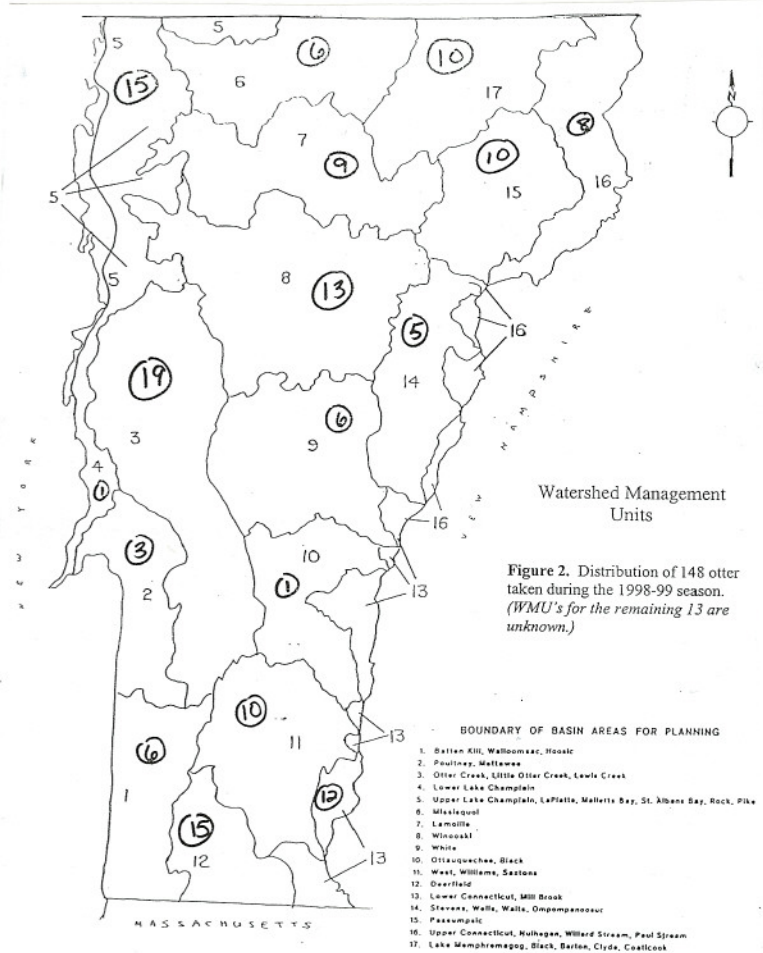


Figure 2. Distribution of 148 otter taken during the 1998-99 season. (WMU's for the remaining 13 are unknown.)

- BOUNDARY OF BASIN AREAS FOR PLANNING
1. Ballen Kill, Wallomeac, Hoast
 2. Pouliny, Mallowee
 3. Otter Creek, Little Otter Creek, Lewis Creek
 4. Lower Lake Champlain
 5. Upper Lake Champlain, LaPlatte, Malletts Bay, St. Albans Bay, Rock, Pike
 6. Missisquoi
 7. Lamotte
 8. Winooski
 9. White
 10. Ottauquechee, Black
 11. West, Williams, Saxtons
 12. Overfield
 13. Lower Connecticut, Mill Brook
 14. Stevens, Walls, Walls, Ompompanoosuc
 15. Passumpsic
 16. Upper Connecticut, Mulhegan, Willard Stream, Paul Stream
 17. Lake Memphremagog, Black, Barton, Clyde, Coaticook

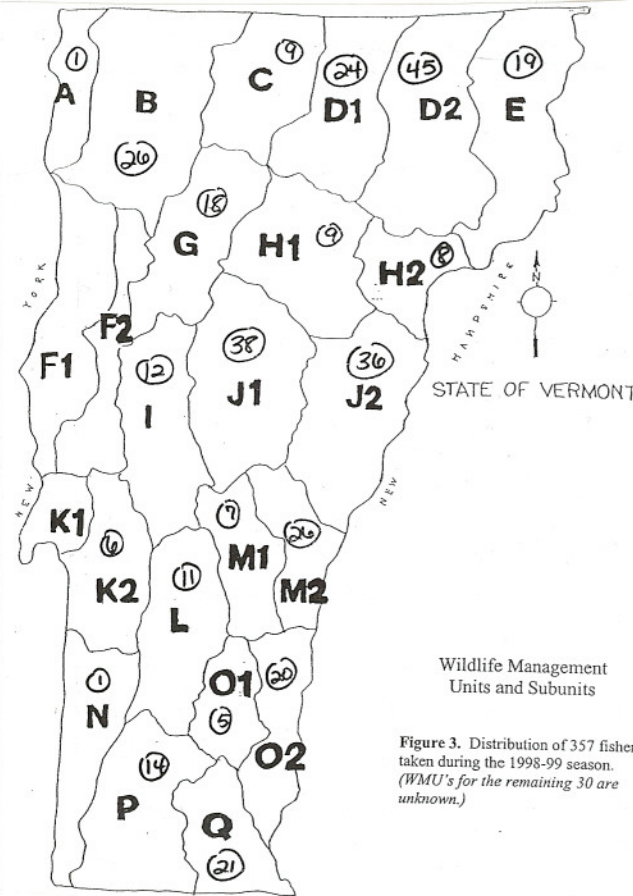


Figure 3. Distribution of 357 fisher taken during the 1998-99 season. (WMU's for the remaining 30 are unknown.)

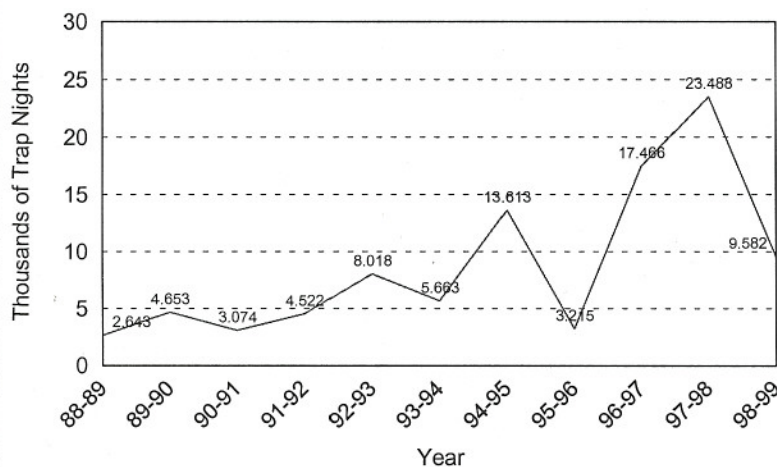
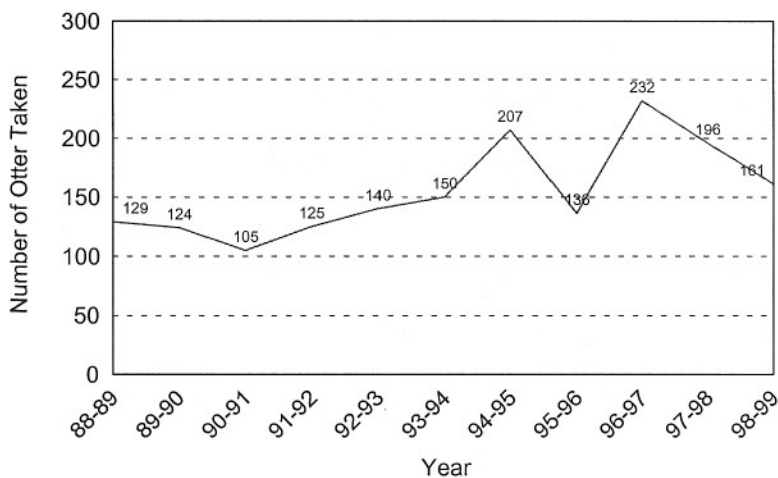
Trapper Mail Survey *(continued)*

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

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



Figure 4. Otter Harvest and Trapper Effort (TRNT's) in Vermont.

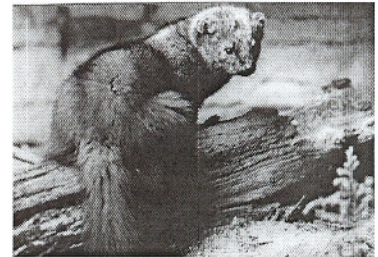


Trap Standards Committee

The Vermont Trappers Association approached the Department of Fish and Wildlife in 1997 with a proposal to develop a cooperative committee whose goal would be to improve trapping in Vermont through the exchange of ideas and information. The group, made up of members of the Fish and Wildlife Department, several trappers, employees of USDA Wildlife Services, a legislator, and a veterinarian, have met consistently since early in 1998. Many issues have been discussed and several tasks have been successfully accomplished. A survey of over 700 teachers was

conducted at last year's statewide teachers convention in Essex. The survey questioned teachers on a variety of topics related to wildlife, hunting, trapping, and conservation issues. The results will help us to direct our education and outreach efforts so that they are most effective. Last year Vermont veterinarians were surveyed to find out how many had treated domestic pets for trap-related injuries (see results below). The group is presently working on revising the trapper education book so information is more current. Many of the members of the committee have

volunteered hours of their personal time to work toward improving and sustaining regulated trapping.



Veterinarian Survey

Members of the Trap Standards Committee sent 250 surveys to Vermont veterinarians in July of 1998. The goal of the survey was to attempt to evaluate the level at which domestic animals were inadvertently caught in traps and subsequently required veterinary care. We asked the veterinarians to keep track of non-target domestic animals brought to them for treatment as a result of trap-related injuries. We also asked that the respondents document how they knew the injury was trap related. Of the 250 veterinarians, 50 were unlikely to treat dogs and/or cats due to their present employment situation. Forty-two of the remaining 200 veterinarians returned the survey (21% response rate). Five of the 42 respondents treated a total of 6 animals (5 cats and 1 dog). Although we recognize that it is extremely important for trappers

to continue to make every effort to avoid the capture of non-target animals, the relatively low number of known animals that required veterinarian visits when contrasted against trapper participation and effort, heartened us.

In 1997 and 1998 an average of 545 people bought trapping licenses and approximately 45% of them actively trapped in the 1998-99 season. Trappers spent 17,389 days trapping throughout the fall and winter of 1998-99 using approximately 10,300 traps. According to the trapper mail survey, almost 12,000 animals were harvested through regulated trapping. It appears that based on the amount of effort put in by trappers in Vermont, the incidental take of domestic animals requiring medical care is relatively low. However, trappers need to continue to be vigilant

about reducing the number of non-target captures. Not only is it the responsible thing to do, but our individual actions reflect on every other trapper in the state and influence the public's perception about trapping. An Illinois newsletter on trapper ethics said it best:




"Demonstrating ethics and responsibility while trapping sends many positive messages that non-trappers understand and appreciate more than any explanation. These values are understood universally and don't require extra time or special training. Yet they tell people that we're proud to be trappers, we care about our sport, and we care about the resource we are using."

(Thanks to Dr. John Bressett for his leadership on the survey.)

Best Management Practices (BMP's)

Vermont is one of 21 states participating in the International Association of Fish and Wildlife Agency's trap testing program (Figure 5). To date, 32 traps have been field-tested and data has been collected on nine species. Preliminary results indicate that modified traps and certain new trap designs have significantly improved animal welfare while still maintaining efficiency. Evaluation of the traps has been based on five criteria: *animal welfare, efficiency, selectivity, safety, and practicability*. A progress report will be available by the end of November by contacting the Springfield Fish and Wildlife Office. The BMP task group is starting the process of outlining a draft model of a BMP. The BMP's will be regional and will address each species for which trap testing has occurred.

The traps being tested nationwide this year include several newly available and modified coil- and long-spring models, cage traps, and restraining snares. Modifications include padding, lamination, offset, and double jaws. Vermont, Maine, Pennsylvania, and New York trappers will be testing:

-  No. 2 Bridger coil-spring, offset, laminated, and modified
-  No. 3 Soft Catch modified
-  Belisle Foot Snare

Mr. Edouard Belisle came to Vermont in September to provide training to the northeastern trappers. Everyone who participated was impressed with Mr. Belisle's foot snare and was enthusiastic about trying it themselves.

Connecticut, Washington, and Wisconsin will be participating in a pilot project to develop model furbearer management outreach strategies that will eventually be customized for use in every state. The states involved in the pilot



project have assembled teams of biologists, educators, and outreach specialists to develop customized strategies and work with a consultant to implement the project in the year 2000. Specific messages and techniques will be tested so other states like Vermont can use methods that have been proven to be the most effective to inform the public about trapping.

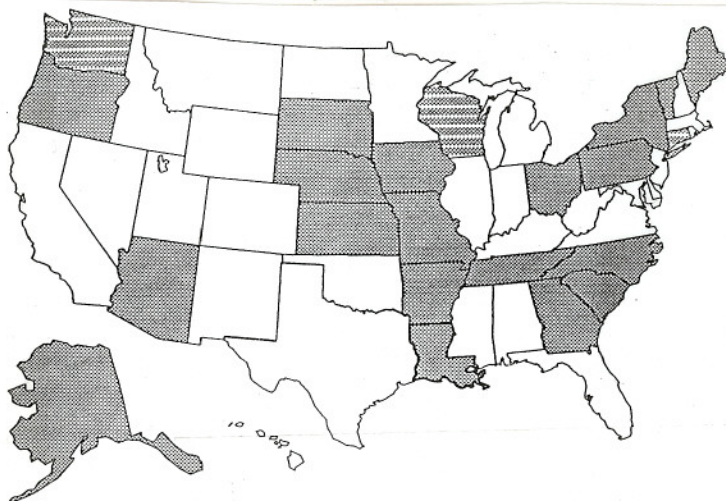


Figure 5. Test states in the BMP (gray) and outreach projects (striped).

Featured Species: The Eastern Coyote (*Canis latrans*)

The Eastern Coyote (*Canis latrans*) could be one of the least understood and most maligned creatures of the forest. This relative newcomer to Vermont is an incredibly adaptable and, therefore, successful predator. Since the 1940s when the coyote was first found in Vermont, it has moved east to Newfoundland, Prince Edward Island, and south to New York City! Today, the coyote is an established member of Vermont's fauna.

Natural History

Much of the coyote's success can be attributed to human changes to the ecosystem that occurred in the 1800s. Because of the conversion of western prairies to agricultural land, the loss of eastern forests to logging and agriculture, and unregulated harvest, species such as the mountain lion and timber wolf were extirpated from their natural environment. With an abundant supply of prey and little or no competition from species higher up on the food chain, a void was left in the northeast which allowed the western coyote to expand its range to the east. The coyote as a species deserves our respect because of its adaptability to human activities and its resilience despite man's every attempt to exterminate them.

The eastern coyote first began to appear in Vermont in the late 1940s. Since then, the species has established itself throughout Vermont and the Eastern United States. Today Vermont is home to a stable coyote population, estimated to be around 1,500-4,200 depending on the time of year. This is due to the coyote's ability to adapt to humans, and its varied diet of insects and berries to rodents and deer.

Description

The eastern coyote looks very similar to its western relative although definitely heavier. Males generally

weigh 30-40 lbs, and females average 30 pounds. The eastern coyote is heavier and less sleek than their western kin, making them appear almost wolf-like. Research has shown that during the coyotes eastward migration, the species may have interbred with wolves which would explain the difference in appearance between eastern and western coyote.

The coat of the eastern coyote is grizzled, often darker in summer and lighter in winter. The head and legs have variations of reddish fur contrasted with darker fur. Creamy white fur is found under the chin and throat and also the belly and chest area. The tail is grizzled above and lighter below, generally, but with two distinctive features; a black spot one-third of the distance down from the base of the tail's upper surface and a definite black tip.

The coyote and hunter walk on common ground. We seek out the same quarry. We share the same desire in finding that quarry. We both are hunters. We both are predators. And we both have the right to the bounty that lies within the forest...

We fight, tooth and nail, against the anti-hunters. We reason and plead with the non-hunters, trying to convince them that hunting is a natural, ethical, and noble pursuit. But, in the same breath, we curse and condemn the coyote for his natural behavior, killing game. As hypocritical as this may sound, it is the truth. How can we, with a clear conscience, curse the coyote without cursing ourselves? Impossible!

— A Maine Hunter

The home range of the eastern coyote has been estimated at 15 square miles. Depending on density and prey availability, young coyotes will disperse at about 5 months although some may not leave until their 2nd year. Coyotes are territorial and will defend their home range from interlopers. Dispersing juvenile coyotes must find unoccupied areas to establish new home ranges thus limiting the numbers of coyotes in any particular area.

The diet of the eastern coyote can be best described as a generalist which is in part what makes the coyote so successful. Coyotes are omnivores and will eat virtually anything depending

on the availability. Their diet consists of small rodents, plants, hare and rabbits, insects, and livestock carrion. Deer also make up an important part of the coyote diet. The coyote will take advantage of the Vermont winters by feeding on the deer that may not have otherwise made it through the long winter. During spring and summer, fawns may also play a role in the coyote diet. In Vermont, deer managers take this factor into consideration when managing the deer herd. In fact, in spite of the coyote, deer numbers in Vermont have continued to increase over the last 10-15 years.

Reproduction/Family Unit

Mating occurs during late January and early February. Gestation lasts approximately 2 months with young being born in mid April. Eastern coyotes are monogamous, meaning they mate for life. Both adults assist in care and rearing of young. The number of young produced depends on population densities, prey availability, and other environmental conditions.

The family unit consists of a mated pair, pups, and possibly yearlings. On occasion when conditions are dire, non-reproducing individuals may be allowed into the family unit.

Coyotes tend to stay together in groups or packs when prey is larger or when high densities of coyotes prevent dispersal.

What is a Coydog?

Research has shown that coyote-dog hybrids (coydogs) are not a reproducing population. Female coydogs actually come into season too early causing poor pup survival rates. In addition, male coydogs do not assist in the rearing of their young which also contributes to litter failure. Therefore, crosses between these two species, when they infrequently occur, is generally limited to a single generation.

Land Stewardship Ethic

I was listening to the radio the other day on my way to work when I heard the commentator say that within the next 20 years Vermont's human population would double to 1,000,000. What impact, I wondered, would this increase have on wildlife populations and Vermont's traditional rural culture?

At the turn of the last century, far fewer than 1,000,000 people eliminated many of Vermont's wildlife species through habitat degradation and unregulated harvest. Then through the 1900s, thanks almost exclusively to funding provided by sportsmen and women, populations of native species such as otter, fisher, beaver, turkey, deer, and peregrine falcon recovered as a result of wildlife management and reintroduction programs. Despite the tremendous achievements of the past century, we cannot grow complacent. Since 1970, the number of Vermont dairy farms has been reduced by 70%, the number of noncommercial vehicles registered in Vermont has increased by 24% in the past decade, and habitat is being lost and fragmented on a daily basis as a result of new roads, houses,

shopping malls, and suburban sprawl. So what effect will another 500,000 people (many of them with an urban or suburban background) have on Vermont's natural resources and how do we, who care about wildlife and Vermont's rural culture, meet the challenges that lie ahead?

I believe that if there's any group that can meet this challenge, Vermonters can, and in particular Vermont sportsmen and women. The solution may lie at least in part, in the adoption of a land stewardship ethic. Aldo Leopold, the father of wildlife management, said that "People are members and citizens of the land community which includes the soils and water, as well as the plants and animals." Most trappers understand this concept and many value and respect the land far beyond its economic value.

However, as the human population increases and becomes more urban, preserving the integrity of this state, both culturally and environmentally, will become more challenging. Maintaining intact forests and farms and the cultural heritage of

hunting and trapping will become increasingly more difficult. To succeed, we as individuals must take responsibility. First, we must all assess our own actions and how they affect the future of Vermont's land base, rural culture, and wildlife resources. Second, we must work toward a shared vision for the future. What kind of place do we hope Vermont will be 50 years from now?

To implement a land ethic we, as individuals, will have to freely choose to conserve the land, our heritage, our resources, and our quality of life.



Aldo Leopold, the father of wildlife management, said that "People are members and citizens of the land community which includes the soils and water, as well as the plants and animals."

Beaver Stew Recipe



From: The Maine Way Cookbook 1981

1/4 cup vinegar	1 quart tomatoes
1 large onion, sliced	1 pkg. carrots, sliced
4 medium potatoes, diced	1/2 tsp. garlic salt
1/4 tsp. thyme leaves	1 tsp. gravy master

Place neck and/or front shoulders in pot of water with the vinegar and bring to a boil. Boil slowly 10 minutes. Pour off liquid. Add fresh water and simmer until meat can be removed from the bones. Add the vegetables and seasonings. Cover and simmer for 1/2 to 3/4 hour. Add dumplings, then cook uncovered for 20 minutes. (Dumplings can be made using 2 cups flour, 1/2 teaspoon salt, 8 teaspoons baking powder, and about 1 cup of water.)

Anne Anderson, Cundy's Harbor, ME

Vermont Fish and Wildlife...Trying to do its part...

The Vermont Fish and Wildlife Department has been involved for almost 25 years in the protection of critical wildlife habitat through the Act 250 process.

Since 1995 Department personnel have reviewed 7,969 applications for land and water development projects. Approximately 985 (12%) of these projects involved conflicts with critical fish or wildlife

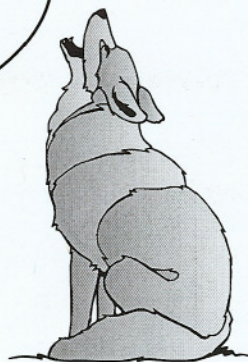
habitats. The following table shows the number of acres of habitat protected (although not necessarily permanently) (see Table 3). Despite the Department's significant efforts, the chart also shows the number of acres of habitat lost over the last five years. These figures underestimate habitat loss for two reasons:

- 1) Many development projects don't fall under the jurisdiction of Act 250; and
- 2) Act 250 only allows the department to intervene when development projects impact 'critical' wildlife habitat. The department, therefore, is not able to protect other valuable wildlife habitats under the law.

Table 3. Information concerning the number of acres of critical wildlife habitat protected by the Department during the period July 1, 1995 through May 15, 1999.

Critical Habitat	# of Projects	Acres Protected	Acres Impacted	Avg. Acres Protected/Yr.
Deer Wintering Area	516	12,097	1,530	2,419
Black Bear Habitat	87	13,061	969	2,612
Wetlands	247	1,174	114	235
Threatened & Endangered Sp.	135	340	84	68
Total	985	26,672	2,697	n/a

*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 furbearer resource.*



Trapping is Ecologically Sound

As long as trapping is regulated, there are no negative impacts on the ecosystem. In fact, people who use wild animals for their food and clothing have less impact on ecosystems than those of us who depend on raised beef and cotton.

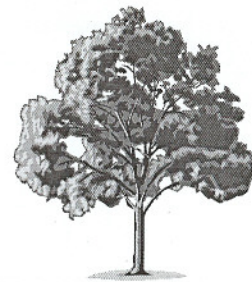
The sustainable harvest of wild fur results in little waste, pollution, or degradation of wildlife habitats. Alternatives such as cotton, wool, and petro-chemically based synthetics result in pollution, energy waste, and displacement of millions of acres of wildlife habitat.



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.

...when we see land as a community to which we belong, we may begin to use it with love and respect. There is no other way for land to survive the impact of mechanized man, nor for us to reap from it the aesthetic harvest it is capable, under science, of contributing to culture.

— *Aldo Leopold, A Sand County Almanac, 1966*



There are cultural values in the sports, customs, and experiences that renew contacts with wild things...First, there is value in any experience that reminds us of our distinctive national origins and evolutions, i.e. that stimulates awareness of history...a farmer boy arrives in the schoolroom reeking of muskrat; he has tended his traps before breakfast. He is reenacting the romance of the fur trade. Second, there is value in any experience that reminds us of our dependency on the soil-plant-animal-man food chain, and of the fundamental organization of the biota.

— *Aldo Leopold, A Sand County Almanac, 1966*

In the Days of Bartering...

Have you ever wondered what a beaver pelt is worth? In 1703 you didn't sell a beaver pelt — you traded one. In fact, the beaver pelt was the “dollar” of the day. And this is what your choices were for *one beaver pelt*:

- ▶ 1 1/2 yards of broad fine cotton
- ▶ 6 knives
- ▶ 5 pecks of Indian corn
- ▶ 6 combs
- ▶ 2 pints of gun powder
- ▶ 1 shirt
- ▶ 1 pint of shot
- ▶ 2 small axes
- ▶ 10 pounds of pork
- ▶ 2 small hoes



Or if you wanted to trade a beaver skin for other pelts, here were your choices, again for *one beaver pelt*:

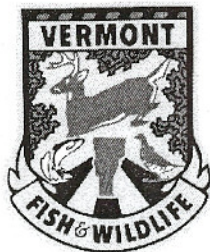
- ▶ 1 otter
- ▶ 8 mink
- ▶ 1 bear
- ▶ 4 marten
- ▶ 5 pounds of feathers
- ▶ 4 raccoons
- ▶ 2 woodchucks
- ▶ 2 foxes
- ▶ 4 large seal skins
- ▶ 1/2 moose hide

From *Furbearer Management Newsletter*, New York State Department of Environmental Conservation, Spring 1994.

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