

# Vermont Furbearer Management Newsletter



**The MISSION of the Vermont Fish & Wildlife Department is the conservation of fish, wildlife, and plants and their habitats for the people of Vermont.**

**Editors:** Christopher Bernier  
Mary Beth Adler

**Designer:** Melissa Currier

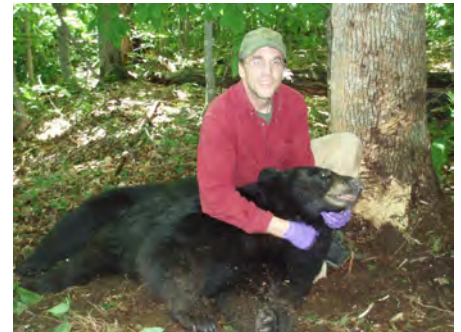
802-885-8833

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

## Vermont Fish & Wildlife Department

By all measures, it was a banner year for furbearer management in Vermont. The Vermont Fish & Wildlife Department (VFWD) sold 763 trapping licenses this past year which is the highest number sold since the late 1980s. Enrollment in trapper education courses was again at an all-time high this year resulting in over 300 newly certified trappers – more than twice the amount certified in 2009. In fact, demand for these courses continues to be so high that the VFWD has had to ramp up its efforts to recruit volunteer instructors and has added trapper education to the Green Mountain Conservation Camps’ advanced week curriculum. Trappers were rewarded this past year for their hard work and attention to detail by a nearly across-the-board increase in pelt prices. The average price of some species rose by more than 50%. As if all that wasn’t enough, the vital statistics for most of our furbearers continue to indicate healthy animals with stable or increasing populations. This has resulted in record harvests of several species being achieved during the 2012-13 trapping season. It certainly was a year to remember.

All indications are at this point that the 2013-14 trapping season may be a repeat of last year. As exciting as it is to witness this renewed interest in trapping and to reap the many benefits of our sustainable fur resources, higher pelt prices and abundant furbearer populations combined with increased license sales and trapper certifications all point toward there being a lot of trappers out-and-about this season. This additional activity in the woods, of course, can be a mixed blessing. It is incumbent upon us all, however, to work together to maintain the respect that trappers have worked so hard to build and to foster a trapper ethic that will carry us through the future. As some of you more weathered trapping veterans can attest, taking the time to assist someone just getting started can make all the difference in setting them on the right path. Similarly, calling out those that have strayed from this path will go a long way toward securing the future of trapping in the state.



*Chris Bernier, Furbearer Management Project Leader*

In the pages to follow, the VFWD’s Furbearer Management Project staff provides you with summaries of some of the key happenings of the year. It is our hope that the information contained herein will help you to better understand the species you pursue, the issues they face, the actions we’re taking to address these issues and the things you can do to contribute to these efforts. Although we have accomplished a lot this year, there is much more to do and you, the trapper, are an integral part of accomplishing these tasks. Many thanks to you all for your continued support and cooperation.

Chris Bernier  
Furbearer Management Project Leader

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## 2012-13 Trapping Season Summary

In the 2012 Furbearer Newsletter, we shared with you the various mechanisms by which the Furbearer Management Program staff collects all the necessary furbearer data. Such things as *fur dealer reports, trapper mail surveys, necropsies* and *pelt tagging* were discussed in detail and many examples of the data analysis output were provided (<http://www.vtfishandwildlife.com/library.cfm?libbase =Newsletters>). This year, because so many topics warrant discussion in the newsletter and space is limited, the season summary statistics have been abbreviated. For those of you wanting additional season summaries, please feel free to contact the Furbearer Management Project at (802) 885-8833.

The trapper mail survey provides several key pieces of information useful for tracking the populations of the animals we pursue. For many of the species, the mail survey is the ONLY source of information we collect and forms the basis of our management decisions. In addition to estimating the number of animals harvested each year and the value of this harvest, the mail survey is used to calculate the *Catch per Unit of Effort* (CPUE). In simple terms, the CPUE can be explained as an index of population change whereby higher populations result in higher CPUE values and vice versa. As you can see in Table 1, the CPUE values for most of the species have remained remarkably stable over the past ten years and have remained within the

normal distribution of values typically observed.

Pelt tagging and carcass turn-in procedures provide important data on several species (fisher, otter and bobcat). These data are used to help us establish confidence in the estimates we calculate using mail survey data as well as to provide a secondary measure of the population status of these specific species. Although the 2012-13 season produced record harvests for both otter and bobcat as well as a near record harvest of fisher (Table 2), analysis of the sex/age data gathered via the carcass turn-in program reveals stable trends with these populations.

**Table 1.** Summary of annual trapper mail survey reported catch per 100 trap nights (CPUE), 2003-04 through 2012-13.

Season	Mink	Raccoon	Muskrat	Skunk	Opossum	Weasel	Coyote	Red Fox	Grey Fox	Bobcat	Fisher	Otter	Beaver	Total Season CPUE*
2003-04	1.27	2.56	5.26	5.18	3.46	2.86	1.57	1.63	0.56	1.10	2.18	0.83	3.98	2.72
2004-05	1.41	3.23	10.21	4.16	36.21	4.21	1.85	1.32	0.46	0.91	2.20	1.53	5.15	3.79
2005-06	2.08	3.05	10.75	4.29	n/a	4.30	2.10	1.69	0.86	0.84	2.06	1.73	6.14	4.67
2006-07	1.62	2.48	11.55	5.39	6.81	1.82	1.23	1.46	0.48	0.59	1.24	1.63	7.58	4.28
2007-08	2.57	4.01	10.43	2.67	5.28	2.32	1.38	1.53	0.68	0.65	1.36	1.75	4.30	3.46
2008-09	1.64	3.04	10.47	7.24	5.38	3.07	1.57	1.26	0.65	0.75	1.17	1.08	5.01	3.78
2009-10	1.80	2.66	14.21	13.34	7.25	3.56	1.47	1.07	1.25	0.87	1.52	1.12	3.44	4.70
2010-11	2.21	3.00	12.00	10.92	14.05	2.17	1.71	0.84	0.95	0.72	1.41	1.68	8.17	4.41
2011-12	1.79	3.31	8.21	5.18	1.66	0.83	1.80	0.98	0.91	1.12	1.28	1.96	5.05	3.64
2012-13	2.27	3.52	10.55	7.72	19.13	3.08	2.00	1.08	1.01	0.86	1.27	1.48	6.94	4.37
<b>10-year Average</b>	<b>1.87</b>	<b>3.09</b>	<b>10.36</b>	<b>6.61</b>	<b>11.02</b>	<b>2.82</b>	<b>1.67</b>	<b>1.29</b>	<b>0.78</b>	<b>0.84</b>	<b>1.57</b>	<b>1.48</b>	<b>5.58</b>	<b>3.98</b>

\* Total animals caught/total TRNTs.

## 2012-13 Trapping Season Summary *(continued from page 2)*

**Table 2.** Bobcat, fisher, and otter harvests by year from pelt-tagging records, 2003-04 through 2012-13.

Season	Bobcat	Fisher	Otter
2003-04	70	476	133
2004-05	66	617	203
2005-06	79	420	178
2006-07	93	608	193
2007-08	91	389	106
2008-09	80	368	128
2009-10	111	403	122
2010-11	68	430	175
2011-12	95	434	234
2012-13	150	539	269
<b>10-year Average</b>	<b>90.3</b>	<b>468.4</b>	<b>174.1</b>



## Trapper Mail Survey

For the third consecutive year, the trapper mail survey response rate dropped to an all-time low of 29% (Table 3). The *Season Summary Adjustment Factor* is used throughout

the analysis of mail survey data to calculate estimates of the various summary statistics which account for the activities of those trappers who did not respond to the survey.

Because this adjustment factor is applied with the underlying assumption that trappers who did

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**Table 3.** Annual trapper mail survey response rates and estimated number of active trappers, 2006-07 through 2012-13.

Season	Licenses Sold (a)	Surveys Sent (b)	# of Responses (c)	Proportion Responding (c/b=d)	# of Respondents Who Trapped (e)	Proportion Respondents Who Trapped (e/c=f)	# of Permanent Licensees Responding (g)	Estimated Active Trappers* ((a*f)+(g/d)=h)	Total Active Respondents (e+g=i)	Season Summary Adjustment Factor** (h/i)
2006-07	674	573	432	0.754	227	0.525	46	415	273	1.52
2007-08	646	616	389	0.631	184	0.473	36	363	220	1.65
2008-09	604	598	360	0.602	182	0.506	25	347	207	1.68
2009-10	581	546	363	0.665	168	0.463	22	302	190	1.59
2010-11	633	480	305	0.635	157	0.515	36	382	193	1.98
2011-12	626	548	277	0.5	158	0.57	34	425	192	2.21
2012-13	763	761	222	0.292	127	0.572	41	577	168	3.43

\* The Estimated Active Trappers calculation assumes that trappers NOT responding to the annual mail survey participate in trapping activities to the same degree as those that DID respond.

\*\* The Season Summary Adjustment Factor is used throughout the analysis of trapper mail survey data in order to account for the data of those trappers who did not respond to the survey.

## The Great Cable Restraint Debate

The use of snares in Vermont has been prohibited by statute since 1961 (T.10 § 4706). This prohibition was adopted by the legislature at a time when many of the state's furbearer species were struggling to recover from the widespread habitat destruction characteristic of the agricultural era and from the extensive *unregulated* trapping which occurred prior to the 1900s. Whether it was an attempt to reduce trapper efficiency in order to limit harvests or to do away with what was perceived as an inhumane trap, the adoption of this law has nonetheless sealed the fate of snares to present day.

During the ensuing decades since this law was passed, the modernization of *regulated* trapping and furbearer management has directly resulted in the abundant furbearer populations we all enjoy today as well as in a variety of advancements in trap evaluation, design and technology. One such device which has clearly benefited from this modernization is the *cable restraint*. In simple terms, a cable restraint is a snare which is constructed and deployed in such a manner that captured animals are live-restrained with minimal risk of injury. Although both traditional snares and modern cable restraints have utility depending on the situation, recognition of the cable restraint as a humane, safe, selective, practical and efficient device among a growing number of wildlife professionals has prompted many states to adopt rules allowing for and governing the use of cable restraints as an alternative to traditional snares on land. Here in Vermont, the Furbearer Management Project is actively evaluating the support we may have among our various constituents for legalizing cables restraints in the state.

As you may recall, in last year's trapper mail survey we asked several questions about your opinions related to cable restraints. These questions were asked in an attempt to gauge trapper support for the use of cable restraints and to help us identify what viable options may exist for implementing their use in Vermont. Of the 208 people who responded to the questions, 139 (66.8%) expressed they were in favor of the use of cable restraints thereby giving trappers additional options for certain situations, locations and species. In addition to beaver, otter, fox, raccoon and bobcat, the majority of respondents cited coyote as the preferred target for cable restraints. It is interesting to note, however, that a small number of respondents (10) indicated that they perceived these devices as a threat to pets and believed their use would result in bad publicity. The concerns these folks raise highlight the fact that not everyone is comfortable with cable restraints and that such concerns will need to be considered and addressed in any initiative in this regard.

In the coming weeks and months, the Furbearer Management Project will continue its efforts to evaluate constituent support for cable restraints as well as to further assess the full range of issues and risks associated with these devices. In addition to working with our Vermont constituents, program staff will also draw upon the expertise and experience of other states where cable restraints have been in use for some time. Through all of this, it is important to understand that this discussion is a moot point until the legislature repeals or amends the prohibition on snares and delegates the regulatory authority over these traps to the Fish and Wildlife Board. Only once

this happens can we actually have a constructive conversation about how, when and where these devices may be used in Vermont. Accordingly, working with the legislature is by necessity a top priority of the Furbearer Management Project. Until then, stayed tuned, get informed and, most importantly, be patient as we chart this course together.



### Canada Lynx Update

The Vermont Fish & Wildlife Department accomplished several key tasks this past year related to the conservation of Canada lynx in the state. As you may recall, survey work conducted in 2012 revealed a small, reproducing population of lynx within the Nulhegan Basin in northeast Vermont. In light of these findings, much of the work completed in 2013 focused on the similar habitats found within the Victory Basin which lies only 22 miles south of the Nulhegan Basin. The relatively close proximity of these two basins, coupled with the similarity of their habitats, led us to believe that if lynx existed outside of the Nulhegan Basin, it would most likely be within the Victory Basin. Contrary to our expectations, though, intensive survey work completed within Victory Basin this year revealed no evidence of lynx. Although this may not seem like a significant conservation discovery, understanding the distribution and

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## Canada Lynx Update *(continued from page 4)*

status of this population helps us to more accurately assess the factors which influence this species' ability to perpetuate itself in the state as well as to develop appropriate conservation strategies. Efforts to further monitor the distribution and status of lynx in Vermont are ongoing.

Working in close partnership with the Vermont Trappers Association (VTA), the VFWD also successfully implemented rule changes this year aimed at reducing the potential for the incidental capture of lynx in the state (see insert). It is important to note that the VFWD and the VTA worked diligently to develop logical rules which accomplished the objective of protecting lynx while simultaneously maintaining as many options as possible for trappers. These rules will go a long way toward conserving lynx in Vermont but our work is by no means done. A significant component of the adopted

rules requires us to continue monitoring the status of lynx in the state and to amend the rules as necessary to account for changes in their population as well as the development of better alternatives for avoiding incidental captures.

Although the rules apply only to Wildlife Management Unit E, the Furbearer Management Project staff encourages all trappers to familiarize themselves with both lynx sign ([www.vtfishandwildlife.com/wildlife\\_lynxrule.cfm](http://www.vtfishandwildlife.com/wildlife_lynxrule.cfm) and see 2014 law digest) and the rules and be prepared to voluntarily adhere to the rules if lynx are encountered along their traplines. Despite our current belief that a resident population of lynx exists only within the northeast corner of the state, they are wide ranging animals capable of long distance dispersals. It is entirely possible that they could be found outside of WMU E. When lynx sign

is encountered, please document such and report to Chris Bernier at (802) 885-8833.

During the past year, the Furbearer Management Project has nearly completed a *Canada Lynx Response and Handling Protocol* which will serve to guide staff responding to situations where lynx have been incidentally captured or have been found otherwise incapacitated or dead. Until this protocol has been finalized and additional instructions have been provided, any uninjured trapped lynx should be released onsite. If an injury is suspected or the lynx is found dead, the animal should be left as it was found and a game warden contacted immediately. **Trappers are required to immediately report all incidentally trapped lynx to a game warden** whether it was released uninjured or not.

## The Research Continues...

For the past several years we have been joined by groups of students and professors at the annual furbearer carcass processing sessions. These folks have collected tissue samples for various research projects including research on the sources of the bacteria *E. coli* that occur in rivers and streams in the Lamoille River basin, the degree of genetic connection among geographically distant fisher populations in the state and determining the infection rate and impact of CPV (canine parvo virus) on Vermont fisher populations. This past season, Baxter Seguin, a student at Green Mountain College, continued investigating the presence of methyl mercury and overall mercury toxicity in Vermont's otter population.

This year we also welcomed Professor Dagan Loisel, Ph.D., assistant



*Students from Green Mountain College collect tissue samples for ongoing research projects.*

professor in the Department of Biology at St. Michael's College, to one of the sessions. Prof. Loisel is conducting research to determine immune genetic variation in the Vermont population of eastern bobcats and has collected tissue samples from almost 100 of the

bobcats you've provided. He explained, *"By examining levels and patterns of diversity in this gene, we will be able to speculate about the potential for resistance to infectious disease in the Bobcat population"*

In the coming winter's carcass processing sessions, bobcat tissue samples will be taken for a cooperative project led by the University of New Hampshire and the New Hampshire Fish & Game Department. This project will evaluate possible movement corridors for bobcats while examining their distribution and abundance in New Hampshire.

A team of stalwart volunteers and VT Fish and Wildlife Department

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## The Research Continues... *(continued from page 5)*

staff performed necropsies on a record 975 carcasses this past season. The sessions were characterized by jovial chatter amidst the clink and clatter of tools and the aroma of simmering teeth.

Many, many thanks to trappers Paul Ainsworth, Gary Gibbs, Mak Keyes, Gardner Smith, Jim Stewart, Brent Teillon, and Brian Webb, and to Peter Smith, Sara Eno, Emma Harrington, and Jade Carr, a Springfield, VT high school student going on to study wildlife biology. Martha Dunbar and

Tony Musante from USDA APHIS Wildlife Services joined in for a day. Thanks to our colleagues at the VFWD for taking time out of their busy schedules to get the job done: Tim Appleton, Pete Emerson, Tyler Brown, Alyssa Bennett, Amy Alfieri, Joel Flewelling, Paul Hamelin, Tony Smith, Adam Murkowski, and Warden Dave Gregory.

And thanks to you, the trappers, for taking the time and effort to provide the carcasses to us. Not only do we, the Furbearer Management Project

staff, gain valuable data for monitoring populations and making management recommendations, it creates opportunity for researchers to investigate environmental and biological concerns that impact our furbearer populations.

If you would like to join us in the carcass processing next year, please call or email and we'll add you to our volunteer list (802-885-8836 or [marybeth.adler@state.vt.us](mailto:marybeth.adler@state.vt.us)).

## Trapper Mail Survey *(continued from page 3)*

not respond to the survey participate in trapping activities at the same rate as those that did respond, the statistics derived by this factor should be interpreted with caution. It is important to understand that as response rates decline and the adjustment factor increases, our ability to confidently detect trends with these populations diminishes. In the absence of sound data, our ability to advocate for the changes you desire is weakened. Obviously,

the current trend with mail survey response rates is of critical concern to program staff so improving this situation is our highest priority by nature of necessity. To this end, on this year's survey we are asking for your thoughts and ideas on ways we can bolster response rates. Should it be mandatory? Should it be available online? Should we continue to mail multiple copies of the survey at a great expense to the program in terms of both time and

money? Should it be simplified to group certain trap sets or should certain parts be eliminated altogether? Included in this mailing is the 2013-14 season mail survey. As soon as you are done trapping for the season, please complete the survey and mail back to us. And again, please take the time to reflect on ways we can improve survey response rates and let us know what you think.

## Trapping Trivia

- The muskrat's name probably comes from a word of Algonquin origin, "muscascus", (literally "it is red", so called for its colorings) or from the Abenaki native word "moskwas". The archaic English word for the animal is musquash.
- In 15th century France, beaver hats were considered so precious that they were often willed to heirs.
- In the Connecticut River Valley during the 1600s, the English entrepreneur William Pynchon was granted a monopoly on the fur trade. By the mid-1670s, nearly a quarter of a million beaver had been shipped to London from the Connecticut River Valley alone, and there were no more beaver to be found in the area.
- In North America, about 95% of the people eat and wear products from animals.



*From the book Water by Alice Outwater*

## Furbearer Education Kits Continue to be a Hit!

The Furbearer Education Kits developed by the Northeast Furbearer Resources Technical Committee in 2004 continue to fly in and out of the Vermont Fish and Wildlife District offices. The five kits, funded by the Vermont Trappers Association (VTA) and the Association of Fish & Wildlife Agencies, have been used repeatedly throughout the state by teachers, 4-H leaders, game wardens, biologists, and a variety of other educators. In the past year, the demand for them has been greater than what can be accommodated.

Comments returned with the evaluation form provided in the kit are 100% positive. A summer camp coordinator who used the kit last July wrote the following:

*"Very, very useful! I think all schools, programs, camps, etc. would benefit. Thank you so much for putting this wonderful kit together!"*



*Photo by Bridget Ferrin-Smith  
St. Johnsbury Middle School*

This sentiment has been expressed to us over and over again. We are grateful for the support of the VTA in the initial funding for the kits and for replacing lost or well-worn pelts from time to time.

Each furbearer kit includes a curriculum for middle school level students, 14 furbearer pelts, skulls, rubber track and scat replicas, mammal and track guide books,

### Two New Kits to be Placed In Service

We are excited to report that the Vermont Trappers' Association and the Federation Fund for Conservation and Training, the 501 (c)3 organization within Vermont Federation of Sportsmen's Club, Inc, have each provided funding for one complete kit. These kits will be put in circulation in November. Many, many thanks to these organizations who are committed to educating young and old alike about our state's fish and wildlife and other natural resources.

videos, and more! Contact one of the five regional Fish and Wildlife offices (Barre, Essex, Rutland, Springfield, St. Johnsbury) to borrow a kit. Be sure to give them lots of lead time because the kits are in high demand.

## Marten Update

Despite numerous obstacles including loss of habitat, competition with an abundant fisher population, and milder winters, it appears there is an expanding population of American marten in regions of Vermont. Since 1997, 17 martens have been reported as incidentally trapped during the fisher season in both southern Vermont and the northeast kingdom. A dozen of these were taken in the past three years.

The age and sex data collected from these animals (12 juvenile males, 3 juvenile females, one 1 year-old male and one 1 year-old female) indicates a small but growing population. Additionally, remote cameras set up this past winter confirmed two martens in the town of Sunderland

and possibly another in Mount Tabor in southern Vermont. Marten tracks were also confirmed at Branch Pond in Sunderland and by tracks and photos in the town of Ferdinand. All of this evidence leads us to believe that there may be more of them out there than we have previously understood.

What does this mean for you as a trapper? Marten are currently classified as endangered in Vermont in light of their history in the state and of the challenges they continue to face. There is much to learn about the current status of marten and you can help. If you see tracks, let us know. If possible, take a photo or two of the tracks with a ruler or other object lying beside to help us



gauge the size and send it to us via email or snail mail. If you incidentally trap a marten, call your local game warden or one of the Furbearer Management Project staff so we can collect the animal and gather important data from the carcass. The more we understand about the distribution and status of marten in the state, the better prepared we'll be for developing appropriate management and conservation strategies for the future.

## Check Out These Websites

**Vermont Fish & Wildlife Department**  
[www.vtfishandwildlife.com/](http://www.vtfishandwildlife.com/)

**Conserve Wildlife**  
[www.conservewildlife.org/](http://www.conservewildlife.org/)

**Vermont Trappers Association**  
[www.vermonttrappers.com/](http://www.vermonttrappers.com/)

**National Trappers Association**  
[www.nationaltrappers.com/](http://www.nationaltrappers.com/)

**Association of Fish & Wildlife Agencies**  
[www.fishwildlife.org/index.php?section=furbearer\\_management&activator=27](http://www.fishwildlife.org/index.php?section=furbearer_management&activator=27)

**Furbearers Unlimited**  
[www.furbearers.org/](http://www.furbearers.org/)

**Fur Takers of America**  
[www.furtakersofamerica.com/](http://www.furtakersofamerica.com/)

**The Wildlife Society**  
[www.wildlife.org/](http://www.wildlife.org/)

**Keeping Track**  
<http://www.keepingtrack.org/>

## THANK YOU, THANK YOU

Trappers, hunters, game wardens, biologists, seasonal staff, education specialists, support staff, and volunteers for your help in the management and conservation of Vermont's furbearers



*Your purchase of hunting and fishing licenses as well as equipment supports Fish and Wildlife Restoration.*



**Fish & Wildlife Department**

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100 Mineral Street, Suite 302

Springfield, Vermont 05156-3168

Website: [www.vtfishandwildlife.com](http://www.vtfishandwildlife.com)