



West Virginia Division of Natural Resources

## Furbearer Management Newsletter

Spring/Summer 2016

Wildlife Resources Section

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The impact of pelt prices and harsh winter weather were felt this past season. Both were reflected in lower fur harvests. While it is difficult to measure the effects of these variables on trapper pressure, the Wildlife Resources Section continues to use a number of surveys and indices to assist. One such survey is the yearly Trapper Survey. This year, it was decided to drop the requirement to include personal information on the form. It is believed that more people may participate if the survey was completely anonymous. With that in mind, please consider participating. A form is included at the end of this report, or one may be obtained at [www.wvdnr.gov](http://www.wvdnr.gov). Thank you for participating. Please direct correspondence to: Rich Rogers, WVDNR, 1 Depot St., Romney, WV 26757, [Rich.E.Rogers@wv.gov](mailto:Rich.E.Rogers@wv.gov).

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### Bobcat Ecology in West Virginia Update

The second and final year of bobcat carcass collections was completed this past spring. Just over 200 carcasses were collected during the second year. It is believed that lower pelt prices and snow cover later in the season kept many trappers at home this past season. Many thanks to those who again contributed carcasses for the study being conducted at West Virginia University by graduate student, Stephanie Landry.

Although data analyses are not complete at this time, early estimates indicate that reproductive rate is slightly higher than a study conducted in the 1980s indicated. Early survival estimates also indicate that adult survival is similar to the previous study, while juvenile survival was significantly higher. Juvenile survival varies greatly from year to year and is the single most critical factor in determining how well a population can recover from mortality including trapping season harvests.

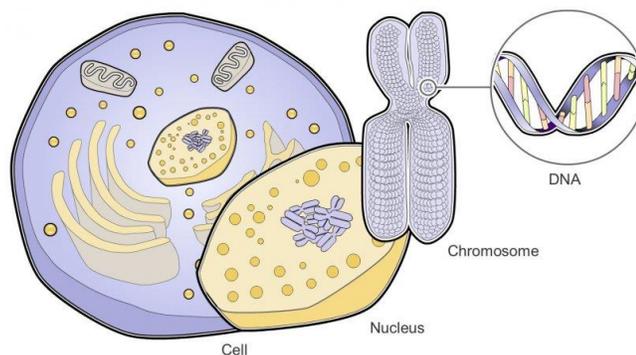
The fact that adult survival appears to have remained unchanged is a small indicator that our yearly bobcat harvest remains sustainable. Once all data are analyzed, the impact of harvest on population dynamics will be more accurately determined.

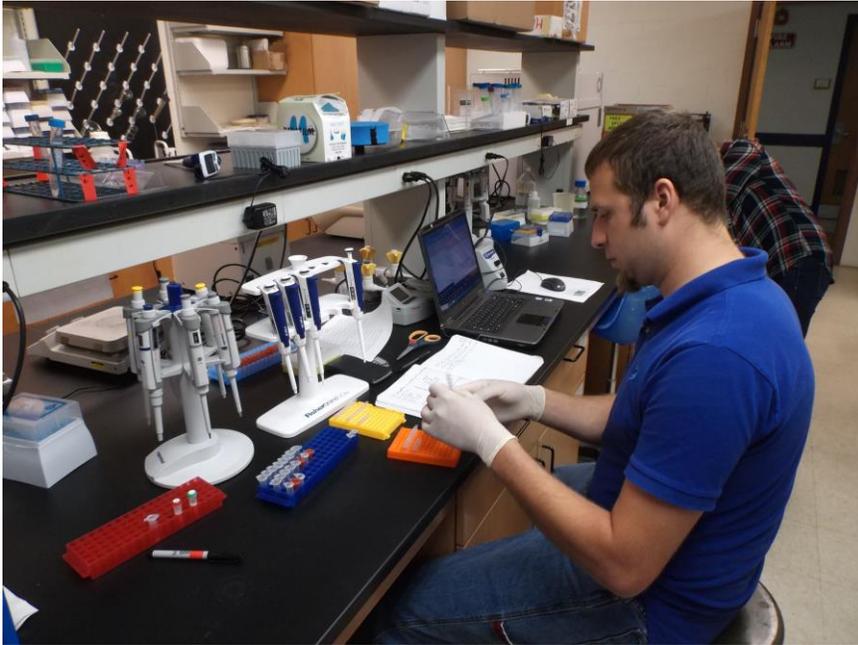
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## Population and Genetic Modeling of Bobcats in West Virginia Update

Bobcat population density, occupancy modeling, and genetic modeling is continuing at West Virginia University and throughout the state in numerous locations. The study will help biologists understand the impacts of trapping harvest on bobcat populations, determine densities and abundances of bobcats across the landscape, and determine if there are genetically distinct, and therefore, different populations in West Virginia. If there are identifiable, different populations of bobcats in the state, biologists will be better prepared to understand and respond to any future changes in bobcat densities.

Bobcat hair has been systematically collected by Wildlife Resources staff for the past two years in all six ecological regions of the state. Blue plastic cubbies using lure and bait have been used to entice cats to passively or actively rub on strategically placed gun brushes to capture hair. PhD candidate, Tom Rounsville, has been identifying hair samples by species under a microscope. DNA is extracted in the lab to verify species and identify individual animals. A new protocol is currently being developed by Tom to hasten and refine DNA analysis for samples containing multiple species. More information will be made available in the next edition of this newsletter.

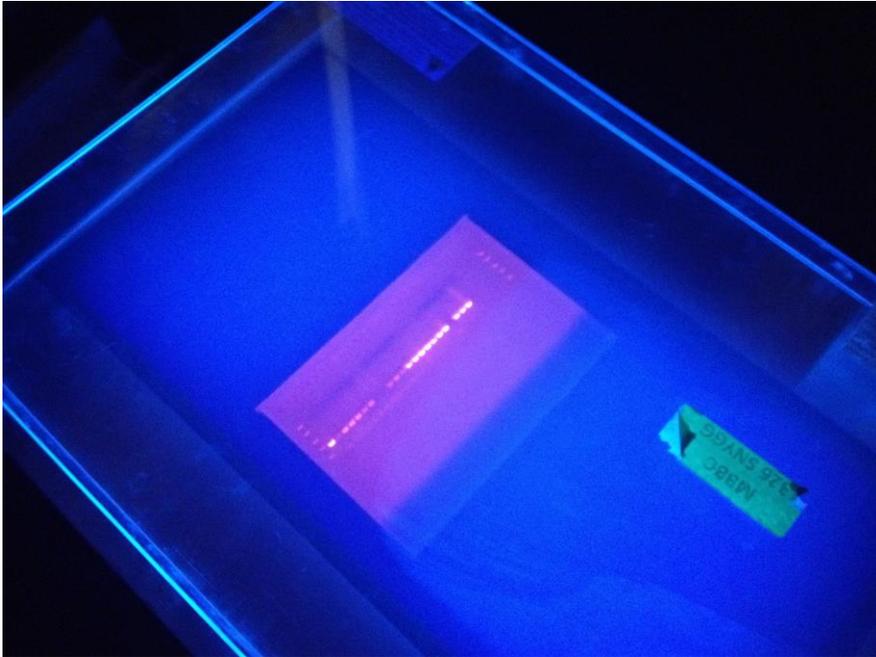




Extracting DNA from hair samples. Extracting, washing, and collecting DNA is a time consuming process.



Placing DNA in gel cells to prepare for electrophoresis. The DNA is placed in a small cell at one end of a block of agar gel which will be subjected to an electrical current. The current will cause different sections of DNA which were amplified (replicated) to move through the gel and glow.



Fluorescing DNA material collected from hair samples. Each bright spot represents a section of DNA with a similar biochemical structure from a separate species. All of the spots are at the same level in the gel indicating that the components used to amplify the chosen DNA sections will be useful in correctly identifying the different species represented in this sample.



Conceptualized DNA structure.

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## Pictures from the Bobcat Project

The first three pictures below are of a bobcat working its way through one of the hair collection cubbies. Bobcat reactions to the cubbies vary considerably with some approaching cautiously and others walking right up to and through the device. The other pictures show cats sticking their heads into the device which also results in captured hair samples.



This final picture is of a litter of young cats in the fall of 2015 checking out a cage cubby that is being field tested in District II.

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## 2015-16 Otter Harvest

This past season's otter harvest was down by almost 50% from our first season five years ago. This is the second year in a row of declining harvest. The trend is following harvests of most other furbearers and pelt prices and is no cause for alarm. The Wildlife Resources Section continues to monitor this species very closely for any signs of overharvest. **Otter trappers are encouraged to turn otter carcasses in to Wildlife Resources district offices or personnel so that biologists can collect biological data to ensure future health of the state's otter population.**

DNR District	2011-12 Harvest	2012-13 Harvest	2013-14 Harvest	2014-15 Harvest	2015-16 Harvest	2015-16 Harvest/County With a Harvest
District I	7	15	19	15	8	1.6
District II	32	28	23	12	15	2.1
District III	49	35	52	33	22	3.7
District IV	52	65	59	56	36	5.1
District V	5	14	12	7	6	1.2
District VI	61	35	28	31	22	3.1
Unknown	-	-	1	2	-	
<b>State Total</b>	206	192	193	156	109	2.8

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## Trapper Survey

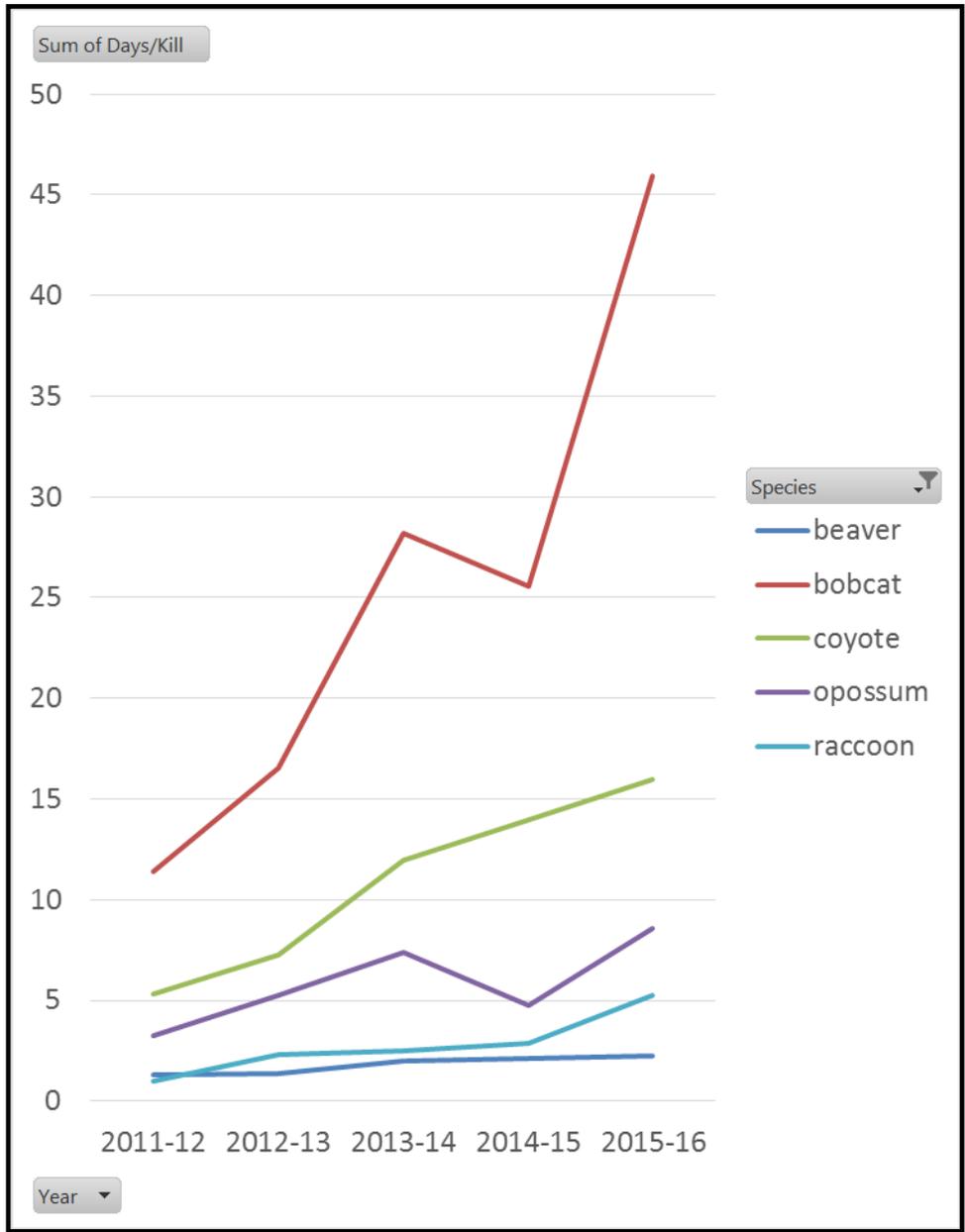
Our most recent West Virginia Trapper Survey indicated that trappers spent more days per catch than last year for bobcat, coyote, opossum, otter, raccoon, and red fox. Fewer days were needed to catch gray fox and muskrats. The 5-year trend for beaver, bobcat, coyote, opossum, and raccoon is increasing days/catch as seen in the graph below the table. This indicates one of a combination of three things: declining numbers of these species, fewer experienced trappers in the field due to lower fur prices, or fewer experienced trappers

participating in the survey. With existing low numbers of trappers in West Virginia, the latter two are more likely.

More surveys are needed to make this a more valuable tool. No surveys were returned from the central part of the state. Survey forms may be obtained from any WVDNR District Office, [www.wvdnr.gov](http://www.wvdnr.gov), the West Virginia Trappers Association web site, or simply use the one provided at the end of this newsletter for the coming season.

West Virginia Trapper Survey						
Species	2011-12 Days/Catch	2012-13 Days/Catch	2013-14 Days/Catch	2014-15 Days/Catch	2015-16 Days/Catch	Ave.
Beaver	1.3	1.4	2.0	2.1	2.2	1.8
Bobcat	11.4	16.6	28.2	25.5	45.9	25.5
Coyote	5.5	7.8	11.9	14.0	16.0	11.0
Fisher	72.0	106.0	21.5	46	46.7	58.4
Gray Fox	10.9	7.5	18.7	21.3	14.4	14.6
Mink	5.6	16.0	25.3	23.4	11.7	16.4
Muskrat	1.4	1.5	2.4	2.3	1.1	1.7
Opossum	3.3	5.2	7.4	4.8	8.6	5.8
Otter	10.8	29.5	26.2	14	93	34.7
Raccoon	1.0	2.3	2.5	2.9	5.3	2.8
Red Fox	14.3	12.3	14.3	9.9	12.3	12.6
Striped Skunk	10.2	7.1	31.3	29.5	26.3	20.9

This graph shows number of days to catch a single animal as calculated from Trapper Survey returns for 2015-16 trapping season.



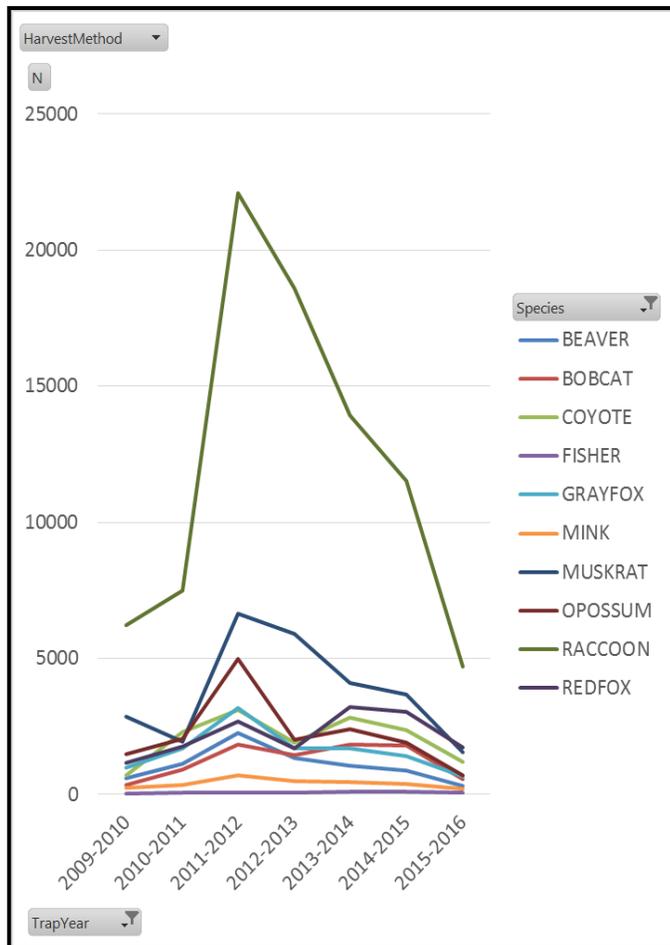
## 2015-16 Furbearer Harvest

The table below shows number of pelts purchased by licensed state fur buyers and numbers of pelts shipped by individuals during the year. Beaver, bobcat, fisher and otter all require mandatory checking. With the lone exception of beaver, harvests and sales of all species dropped precipitously from last year. Five-year trends for almost all species show declining numbers of animals being harvested and sold reflecting decreasing pelt prices. The only anomaly being that the last peak in harvests occurred a year before the last peak in fur prices. This may be explained by a greatly diminished harvest in 2012-13 due to severe winter weather and persistent snow cover for a large part of the season.

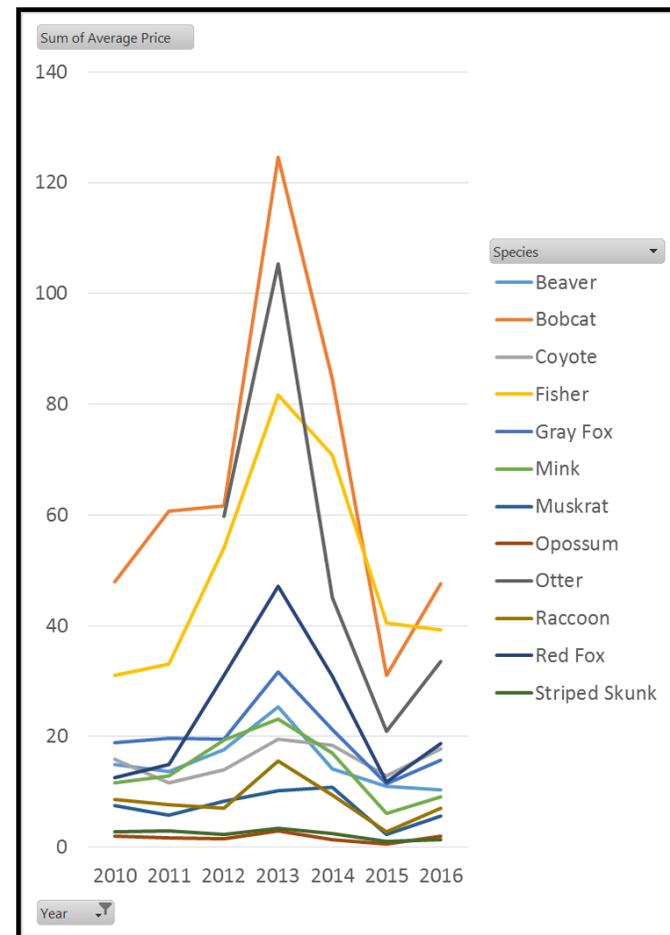
Pelts Purchased						
SPECIES	2011-12	2012-13	2013-14	2014-15	2015-16	Shipped 2016
Muskrat	6649	5909	4105	3664	1557	66
Opossum	4976	2009	2380	1890	707	32
Raccoon	22105	18606	13927	11520	4681	286
Mink	689	476	468	365	192	15
Red Fox	2664	1680	3214	3037	1739	252
Gray Fox	3188	1701	1679	1390	667	42
Bobcat	1835/1857*	1424/1994*	1831/2008*	1805/1971*	573/1430*	48
Beaver	2271/1587*	1322/1742*	1052/1713*	871/1107*	303/1232*	113
Weasel	15	6	6	14	11	10
Skunk	557	191	332	199	81	23
Coyote	3086	1886	2825	2353	1188	72
Fisher	72/149*	74/130*	81/147*	90/166*	51/102*	10
River Otter	0/206*	0/192*	0/193*	0/156*	0/109*	11

\*Number after slash mark is actual harvest as determined from animals checked at checking stations.

The following graph shows numbers of pelts purchased by season with a steady decline starting after the 2011-12 season.



This graph shows average price per pelt by species from West Virginia Trapper Association spring fur sales.



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## West Virginia Badger

This badger was found dead on Route 892 near Parkersburg in Wood County in 1995. Badger range extends well into Ohio with the fringe now extending into western West Virginia. This means that badger sightings are possible, but will remain rare into the near future.



SEPT.  
2:00  
AM

8, 1995

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## Links

West Virginia Division of Natural Resources

[www.wvdnr.gov](http://www.wvdnr.gov)

West Virginia Trappers Association

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

Guide to State Game Depts.

[www.identicards.com/links/statednr.html](http://www.identicards.com/links/statednr.html)

Assoc. of Fish and Wildlife Agencies

Furbearer Resources

[www.fishwildlife.org/furbearer.html](http://www.fishwildlife.org/furbearer.html)

National Trappers Association

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

Fur Takers of America

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

Conserve Wildlife

[www.conservewildlife.org](http://www.conservewildlife.org)

Furbearers Unlimited

[www.furbearers.org](http://www.furbearers.org)

CITES

[www.cites.org](http://www.cites.org)



**2016-2017 TRAPPING REPORT FORM**  
**West Virginia Division of Natural Resources**  
**Wildlife Resources Section**

Read instructions on back side before completing this report.

Name *(It is not necessary to include your personal information)* \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_ Phone \_\_\_\_\_

SPECIES	County:									
	# OF DAYS TRAPPED	# KILLED								
Beaver										
Bobcat										
Coyote										
Fisher										
Gray Fox										
Mink										
Muskrat										
Opossum										
Otter										
Raccoon										
Red Fox										
Spotted Skunk										
Striped Skunk										
Weasel										
Other:										

## INSTRUCTIONS FOR TRAPPING REPORT FORM

This is a voluntary report that will be used to help West Virginia Division of Natural Resources biologists collect more accurate data regarding trapping success and numbers of animals harvested each year.

1. Fill in your name and full address only if you wish to include this information.
2. Provide your phone number only if you would like to.
3. During the trapping season, fill in columns for # days trapped and # animals killed for **EACH COUNTY** that you trap during the legal trapping season. Two columns are provided for each county. Do not include animals that you release.
4. Use more than one sheet if you trap more than 5 counties.
5. Try to accurately record number of days trapped. If in doubt, give the closest approximation of number of days trapped.
6. Sign and date your data sheet before sending in to:

**Rich Rogers  
Trapper Survey  
West Virginia Division of Natural Resources  
1 Depot St.  
Romney, WV 26757**

7. If you have any questions, call Rich Rogers at (304)822-3551.
8. **Send all completed forms in by April 30 of each year.**
9. **DO NOT** include animals caught on Animal Damage Control licenses or on nuisance wildlife permits.