



West Virginia Division of Natural Resources

Furbearer Management Newsletter

Winter/Spring 2024

Wildlife Resources Section

This newsletter is specifically written to keep trappers, hunters, and the general public informed regarding the West Virginia Division of Natural Resources furbearer management program. We would appreciate any suggestions on how to improve this newsletter for your use. Please direct correspondence to: Holly Morris, WVDNR, 2006 Robert C. Byrd Drive, Beckley, WV 25801 holly.n.morris@wv.gov.

River Otter Studies - Food Habits, DNA Analysis, Health, & Survival

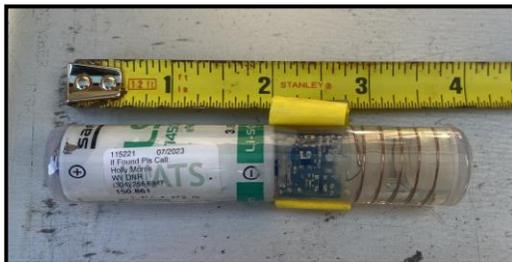
River otter studies continue this year to evaluate the health, food habitats, and population ecology of the river otter in West Virginia. These extensive research efforts are described below.

The DNR has two current graduate students working on river otter diets. Under the guidance of Dr. Thomas Serfass, Professor of Wildlife Ecology at Frostburg State University and worldwide otter expert, a M.S. student is conducting research on "Food Habits of the North American River Otter (*Lontra canadensis*) in West Virginia." This project focuses on the prey that is identifiable in the scat and stomach of otters. Data collection is complete for this study and the student is writing his thesis at this time, with completion anticipated by May 2024. In addition, a M.S. student at West Virginia University under the guidance of Dr. Amy Welsh, Associate Professor of Wildlife and Fisheries Resources, is examining the genetic content of prey items in the river otter diet and population genetics with her thesis titled "River Otter (*Lontra canadensis*) Diet and Population Genetics in West Virginia." The student has collected genetic samples from otters in WV and from states that contributed otters to WV's otter reintroduction. Also, the student is analyzing the DNA of scat and stomach contents to determine the prey species and will be comparing these results to the Frostburg study previously mentioned. Data collection and analysis is ongoing at this time, and it is anticipated the student will complete the project in August of 2024. In all, these two theses will provide valuable information about prey items consumed by otters in West Virginia.

In conjunction with these two M.S. projects and using samples (primarily liver) from the diet study, the DNR is collaborating with the University of California at Davis, Southeastern Cooperative Wildlife Disease Study, and Frostburg State University to conduct a toxicology assessment of river otter samples that may impact individual otters and thus the population ecology of the species. The assessment will focus on the following contaminant categories: 1) Insecticides (a general screen of the occurrence of commonly used insecticides); 2) Organochlorines (a screen of occurrence and concentrations of specific organochlorine insecticides); 3) Toxins associated with cyanobacterial blooms (e.g., microcystin, nodularin and anatoxin-a); and 4) Heavy metals including selenium. Dr. Robert Poppenga, Head of the Toxicology Section in the California Animal Health and Food Safety Laboratory at the School of Veterinary Medicine for the University of California, serves as principal investigator for this project. This project has

just gotten underway with analysis of the samples. These results will provide insight into the health of river otters, and ultimately will serve as an indicator species of overall river and stream health.

The DNR began a new study in April 2023 to investigate river otter survival and population ecology. This project is designed to address the need for more accurate survival rates for river otter to model population growth rates and determine the impacts of trapping regulation changes. This work is led by Dr. Laura Gigliotti, Assistant Unit Leader for the West Virginia Cooperative Fish and Wildlife Research Unit, and is assisted by a M.S. student. The objectives of this study are to: 1) estimate river otter annual survival and harvest rates in West Virginia; 2) evaluate river otter home range sizes, habitat use, and movement rates in relation to fish stocking in West Virginia; and 3) estimate population growth rates. Wildlife biologists and specialists with the DNR are working with a West Virginia University M.S. student to capture river otters and install radio transmitters to complete these objectives of the project. Trapping began in September 2023 and continued until the beginning of the recreational trapping season. Trapping resumed in February of 2024 and this season includes assistance from USDA APHIS Wildlife Services biologists to increase trapping effort. All river otters receive one internal abdominal VHF transmitter, ear tags in each ear, and some are fitted with external GPS transmitter between the shoulder blades. Radio tagged otters are legal game during trapping season. Should you trap or come across a dead river otter, please contact Holly Morris at (304) 256-6947 to coordinate transmitter pickup. Some interesting tracking results so far indicate that during the fall season, a pair of female otters traveled frequently within a 12 mile stretch of stream. This winter, a male otter has traveled 15 miles one way in the span of a week! The new information obtained from this project will provide much needed insight into a restored population of otters.



Internal VHF Transmitter



External GPS Transmitter

Otter Carcass Collection Continues

In order to determine otter population size and effect of harvest, WVDNR will continue to collect otter carcasses. A \$20 gift card is being offered for any useable whole carcass turned in to WVDNR. Carcasses may be brought to any district wildlife office or arrangements can be made to have them picked up by WVDNR personnel. Canine teeth and female reproductive tracts will be used to collect demographic data. Population age structure, survival, and reproductive rate from year to year will be determined to give biologists a picture of population health and assist in determining whether the bag limit needs to be changed. In years past, these carcasses have been used to support other research such as the aforementioned diet and health studies. Contact any WVDNR district office if you would like to turn in a carcass. You can also call: Holly Morris, Furbearer and Small Game Project Leader, at (304) 256-6947.

National Survey of Furbearer Trappers in 2024



The [Association of Fish and Wildlife Agencies](#) (AFWA), in partnership with [Responsive Management \(one of the most highly respected professional survey contractors in North America\)](#), will conduct a national survey of furbearer trappers in 2024. This will be the fourth iteration of the survey which was previously conducted in 1992, 2004, and [2015](#). The goal of this study is to capture important information about trapping and trappers in the United States so that State Fish and Wildlife Agencies can better understand and promote the activity for future generations to enjoy. Information gathered in this survey will also help agencies gauge the success of current efforts to recruit, retain, and reactivate trappers, and plan future efforts to increase trapper participation.

The National Trappers Association and the Fur Takers of America are members of the AFWA and the AFWA Furbearer Conservation Technical Working Group. They have been important partners with AFWA for over 30 years representing trappers and assisting Agencies with understanding trapping. Additionally, all US State and Territorial Fish and Wildlife Agencies are members of the AFWA, along with many Federal Fish and Wildlife Agencies, Canadian Federal and Provincial Agencies, and over 45 non-government conservation organizations like the well-known National Rifle Association, National Wild Turkey Federation, Ducks Unlimited, and Rocky Mountain Elk Foundation.

This survey, like the previous three surveys, will be the most comprehensive national survey ever conducted on the technology and techniques used to harvest wildlife by trapping in the United States. The information gathered will allow for a continued assessment of many aspects of trapping. The objectives of this current survey project are to:

- 1) determine which types of traps are being most commonly used by trappers for various species,
- 2) determine which species of furbearers are of highest priority to trappers to capture on their traplines,
- 3) determine changes in trap use (sizes, types, etc.) by trappers over time,
- 4) quantify and assess trapper knowledge and use of [Best Management Practices](#) for trapping,
- 5) acquire basic demographic information (age, gender, etc.) on trapping license holders, and
- 6) increase state fish and wildlife agencies' understanding of trapping as it is currently being practiced so efforts to recruit, retain, and reactivate trappers can be implemented to increase trapper participation.

Our agency, AFWA, NTA, and FTA would very much appreciate your participation in the survey when the time comes.

River Otter Citizen Science Project

In July 2023, the DNR initiated a new citizen science project to identify the distribution of river otters across the state. The public is asked to report sightings through a survey that can be found online on by using a mobile phone application. To participate in the survey, visit www.wvdnr.gov/surveys and scroll down to River Otters. As part of the survey, participants will be asked to report river otter sightings and provide details about the otter's location, the number of otters observed and what the otter was doing. Submitting a photo of the otter is encouraged. The survey, which is similar to the box turtle and rattlesnake citizen science surveys the WVDNR have conducted, will provide updated information about the bodies of water river otters currently occupy. Data collected during the survey will help the WVDNR better manage river otter populations across West Virginia.



**Scan QR Code with Phone
to Participate in Otter
Sighting Survey**



We Need Your Help! - Regional Parasite Surveillance in Coyotes and Foxes

The WVDNR is participating in a regional intestinal parasite surveillance project being conducted at the Southeastern Cooperative Wildlife Disease Study (SCWDS), a part of the University of Georgia, College of Veterinary Medicine. This study was motivated in part by the recent discovery of *Echinococcus* tapeworms in both domestic and wild canids in Virginia; *Echinococcus* was not historically known to occur regionally but was known to occur in western Ohio and other parts of the midwestern USA. Potential wild hosts for *Echinococcus* include coyotes, red foxes, and gray foxes. The WVDNR is collecting intestinal tracts from wild coyotes and foxes to submit to SCWDS for *Echinococcus* screening. To collect an intestinal tract, open the body cavity and use butcher twine, zip ties, or other suitable materials to tie off the intestinal tract in two places: just below the junction with the stomach, and as close to the rectum as possible. Cut through the intestine on the stomach side and the rectum side of the tie-offs, then bag the intestinal tract. Wear disposable gloves when collecting the intestines. Place the intestines into a zip-top bag, then fill out the data card below- or note the data in the card on a separate sheet of paper- and place it inside another zip-top bag. Insert the bag with the data card into the bag with the intestines and freeze until the sample can be given to WVDNR staff at your nearest District Office or at the WVTA Fur Sale in March. Thank you for your cooperation and we hope you had a great trapping season!

<i>Echinococcus</i> Surveillance Sample Data Card			
Date Collected:	_____		
Species: (circle one)	Red Fox	Gray Fox	Coyote
Age: (circle one)	Adult	Juvenile	
Sex: (circle one)	Male	Female	
Mange: (circle one)	YES	NO	
County:	_____		
Location: (nearest town)	_____		
Comments: <i>Use space below to write any further information you think we should know.</i>			



Pathogen & Toxicant Muskrat Study



The West Virginia Division of Natural Resources is collecting muskrat carcasses to examine pathogens and toxicants that may affect muskrat health and population abundance. If you trap muskrats and are interested in voluntarily participating in this study, please see details below for collecting carcasses. Thank you!

1. Muskrat carcasses may be skinned or unskinned but must be frozen within 24 hours of harvest and include the entire body and head.
2. Trappers will need to keep carcasses frozen until the carcass is given to WVDNR staff.
3. A carcass tag (included below) enclosed in a Ziplock bag must be attached to **each** muskrat carcass.
4. Trappers can copy this page to print more carcass tags, write the information on a piece of paper, or request carcass tags from a WVDNR district office.
5. Carcasses should be delivered to a WVDNR district office unless other arrangements have been made. Trappers should call in advance to arrange delivery or pick up.



Muskrat Carcass Tag

Complete all information, place in waterproof bag, and attach to carcass

Harvester Name _____ Phone # _____

Mailing Address _____

Date Harvested _____ Sex _____

Harvest County _____ GPS Location _____

Address, Road Intersection, Water Body, etc. _____



Circle the land use surrounding the body of water where this muskrat was trapped:
Natural/Undisturbed Habitat Urban/Residential Agricultural Other: _____



How many years have you trapped muskrats on this water body? _____ years

Based on your observations, what do you feel the status of muskrats is in this water body?

Please circle:	Increased	Significantly Increased
	Decreased	Significantly Decreased
	Stable	No Opinion/Unknown

Links

West Virginia Division of Natural Resources

www.wvdnr.gov

West Virginia Trappers Association

www.wvtrappers.com

Guide to State Game Depts.

<https://www.identicards.com/productcart/pc/State-DNRs-d39.htm>

Assoc. of Fish and Wildlife Agencies Furbearer Resources

<https://www.fishwildlife.org/afwa-inspires/furbearer-management>

National Trappers Association

www.nationaltrappers.com

Fur Takers of America

www.furtakersofamerica.com

Conserve Wildlife

www.conservewildlife.org

Furbearers Unlimited

www.furbearers.org

CITES

www.cites.org

Introduce someone to hunting or trapping!

