Volume 15, Issue 2
Fall/Winter 2020-2021

North Carolina Furbearer Management Newsletter

Preliminary Results from 2020-2021 Furbearer Trapping Season

Information on average pelt prices is estimated by using information provided by North Carolina Fur Dealers, fur auctions, and NAFA auction results.

Species	Average Pelt Price 19-20	Average Pelt Price 20-21	% Price Change from prior year	2019-20 Harvest	2020-21 Harvest[1]
Beaver	$7.16	$11.92	66%	11,464	10,138
Mink	$3.92	$4.88	24%	99	100
Muskrat	$2.45	$5.12	109%	1,805	1,984
Nutria	$1.00	N/A	N/A	1,460	1,460
Otter	$16.37	$20.57	26%	1,927	1,173
Bobcat	$24.02	$32.21	34%	789	1,070
Coyote	$14.92	$12.49	-16%	8,249	7,111
Gray Fox	$7.64	$8.10	6%	1,995	1,892
Red Fox	$7.51	$4.96	-34%	2,173	1,709
Opossum	$0.58	$0.64	10%	7,513	6,015
Raccoon	$2.09	$3.99	91%	11,495	10,192
Skunk	$2.42	$2.83	17%	659	528
Weasel	N/A	N/A	N/A	2	0

[1]Preliminary estimate. Final 2020-21 harvest statistics will be in the 2022 Spring Furbearer Newsletter.

Your Furbearer Team!

We are here to serve the wildlife resource and you! Please don't hesitate to contact us with questions, comments, or to participate in our cooperator programs!

Colleen Olfenbuttel, Certified Wildlife Biologist®
Black Bear and Furbearer Biologist
colleen.olfenbuttel@ncwildlife.org

Ashley Hobbs
Asst. Black Bear and Furbearer Biologist
ashley.hobbs@ncwildlife.org

Skulls and Carcasses Wanted

The N.C. Wildlife Resources Commission Furbearer Team is interested in collecting the following:

Bobcat Skulls

Otter Skulls

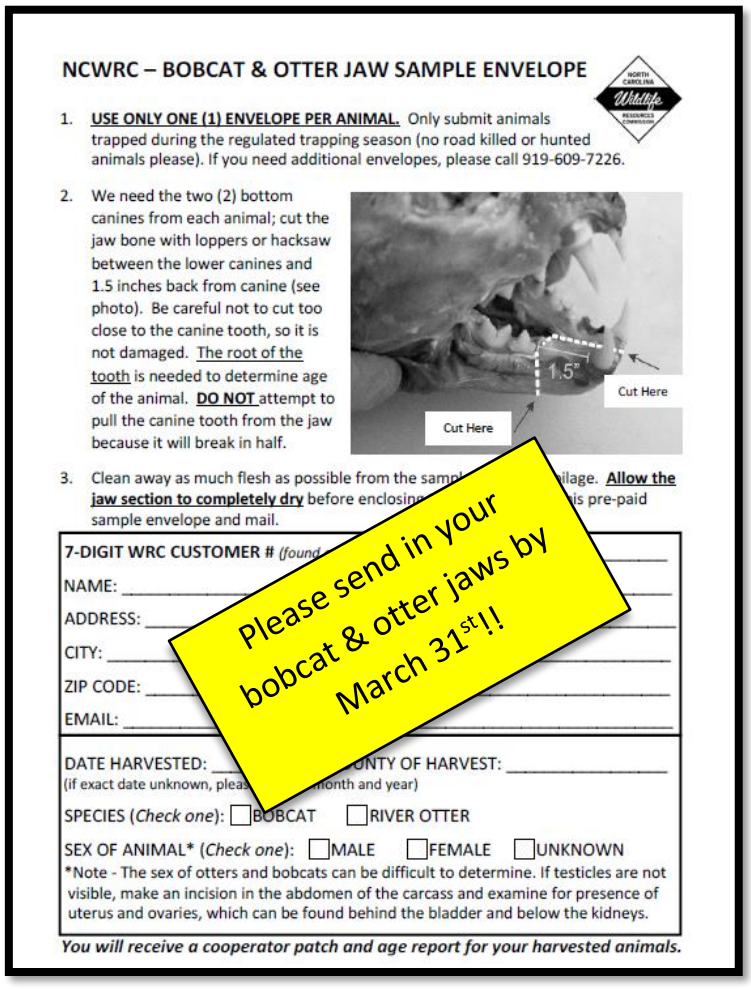
Muskrat and Spotted Skunk Carcasses

This year we will be shipping cooperators pre-paid envelopes to mail in bobcat and otter samples instead of coordinating in-person pick-ups. The canine tooth will be used to look at the age structure of the harvest.

Additionally, we're hoping to obtain muskrat carcasses to examine toxicology exposure and spotted skunk carcasses to collect locations and tissue samples, including genetic samples, to increase our knowledge of this elusive furbearer species. Please contact Ashley Hobbs (information below) to submit a carcass.

Projects such as these are important, as they help us monitor populations and improve our knowledge of North Carolina furbearers. We feel this information will help us maintain trapping for future generations.

In return for your cooperation, you will receive a furbearer cooperator patch and the age of submitted animals. Thank you in advance!



NCWRC – BOBCAT & OTTER JAW SAMPLE ENVELOPE

1. **USE ONLY ONE (1) ENVELOPE PER ANIMAL.** Only submit animals trapped during the regulated trapping season (no road killed or hunted animals please). If you need additional envelopes, please call 919-609-7226.
2. We need the two (2) bottom canines from each animal; cut the jaw bone with loppers or hacksaw between the lower canines and 1.5 inches back from canine (see photo). Be careful not to cut too close to the canine tooth, so it is not damaged. The root of the tooth is needed to determine age of the animal. **DO NOT** attempt to pull the canine tooth from the jaw because it will break in half.

3. Clean away as much flesh as possible from the samp… …ilage. **Allow the jaw section to completely dry** before enclosing … …is pre-paid sample envelope and mail.

7-DIGIT WRC CUSTOMER # *(found …*

NAME: _____

ADDRESS: _____

CITY: _____

ZIP CODE: _____

EMAIL: _____

DATE HARVESTED: _____ …UNTY OF HARVEST: _____
(if exact date unknown, pleas… …month and year)

SPECIES (*Check one*): ☐BOBCAT ☐RIVER OTTER

SEX OF ANIMAL* (*Check one*): ☐MALE ☐FEMALE ☐UNKNOWN

*Note - The sex of otters and bobcats can be difficult to determine. If testicles are not visible, make an incision in the abdomen of the carcass and examine for presence of uterus and ovaries, which can be found behind the bladder and below the kidneys.

You will receive a cooperator patch and age report for your harvested animals.

Please send in your bobcat & otter jaws by March 31st!!

Cut and dry the portion of the lower jaw containing the canine tooth. Follow instructions on pre-paid envelope to ship.

For envelopes, contact:

Ashley Hobbs

Asst. Black Bear & Furbearer Biologist

919-698-4655

ashley.hobbs@ncwildlife.org

For more information visit:
ncwildlife.org/furcooperator

Bobcat Sex and Age Ratio Data

North Carolina started collecting bobcat skulls or lower jaw bones from licensed trappers to determine the sex and age ratio of the trapper harvest. Our sampling objective is 10-15% of the trapper harvest for 5 consecutive years. Due to low pelt prices and the voluntary nature of the program, we have not yet achieved collecting 10% of the harvest.

Since the 2013-14 season, we have collected and aged 236 skulls; during the 2020-21 season, we collected 24 skulls. The majority of the harvest is of 1-year old bobcats (31%), followed by 2-year old bobcats (26%). We have yet to sample a female bobcat that was older than 7-years old (see table below). The sex ratio of the harvest is slightly biased towards male bobcats (57%) and varies by season.

Age class of sampled bobcats from licensed trappers from 2013-14 season through 2020-21 season.

	Bobcat				
Age Class	**M**	**F**	**U**	**Total Sampled**	**% Age class**
0	5	11	8	24	10%
1	29	23	20	72	31%
2	41	12	9	62	26%
3	17	10	5	32	14%
4	11	5	0	16	7%
5	5	5	0	10	4%
6	2	6	0	8	3%
7	2	3	0	5	2%
8+	5	0	2	7	3%
Total	**117**	**75**	**44**	**236**	
Sex ratio	**57%**	**43%**			

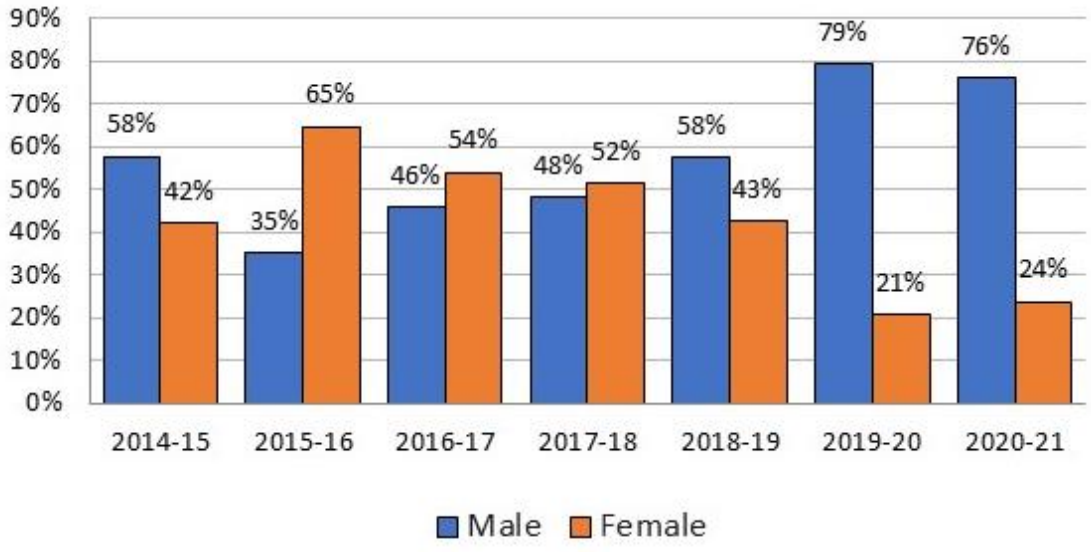


Figure 1. Sex ratio of the sampled bobcats from licensed trappers from 2014-15 season through the 2020-2021 season.

River Otter Sex and Age Ratio Data

River otter skulls are also collected to gather data on the age structure and sex ratio of harvested otters. Since the 2009-10 season, we have collected and aged 1,262 skulls; during the 2020-21 season we collected 39 skulls. The majority of the harvest is of 1-year old otters (41%), followed by 2-year old otters (18%). The sex ratio of the harvest is biased towards male otters (65%) but varies by trapping season.

Age class of sampled river otters from licensed trappers from 2013-14 season through 2020-21 season.

	River Otter				
Age Class	**M**	**F**	**U**	**Total Sampled**	**% Age class**
0	98	102	14	214	17%
1	332	146	36	514	41%
2	135	72	17	224	18%
3	81	31	4	116	9%
4	33	25	8	66	5%
5	30	16	2	48	4%
6	28	8	2	38	3%
7	11	4	2	17	1%
8	15	7	3	25	2%
Total	**763**	**411**	**88**	**1262**	
Sex Ratio	**65%**	**35%**			

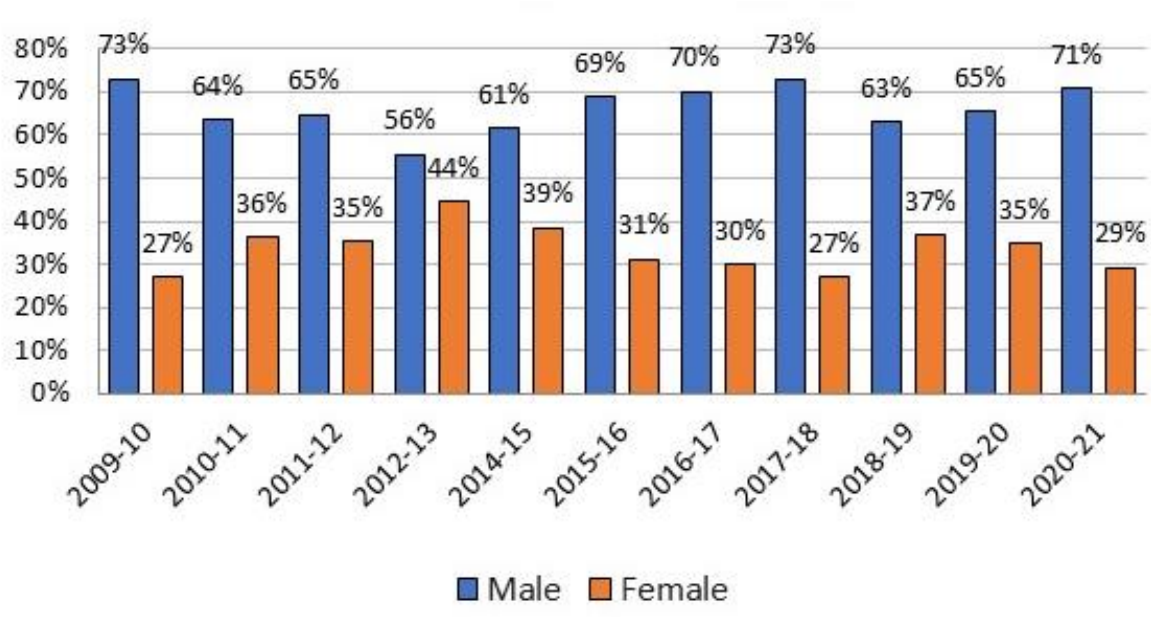


Figure 2. Sex ratio of the sampled otters from licensed trappers from 2009-10 season through the 2020-2021 season.

Muskrat Sex and Age Ratio

Due to concerns about regional muskrat populations, several southeastern, northeastern, and Canadian furbearer biologists have started monitoring muskrat populations in cooperation with licensed trappers. Efforts involve monitoring the age and sex ratio of harvested muskrats, as this may indicate population declines. The age ratio of muskrats can be an important index of population productivity. For example, a high proportion of adults could indicate poor reproduction.

NCWRC Furbearer Biologist, Colleen Olfenbuttel, holding a juvenile muskrat at the VA Fur Sale in Wytheville, VA in March 2021.

Starting in 2011, North Carolina joined regional efforts by attending fur sales and working with North Carolina fur dealers. During the 2020-21 season, we sampled only 5 North Carolina muskrats, a steep decline from previous seasons, and largely due to impacts that Covid-19 had on fieldwork and on fur sales. In addition, one of our major sources for muskrat pelts did not conduct his fur pick-up route in North Carolina; he typically supplies 45% to 50% of our samples. Caution should be taken in interpreting ratios for 2020-21, since sample size was low.

We will continue to monitor the age and sex ratio of the harvest and identify whether additional research is needed to monitor the status of muskrat populations.

In addition, we plan on collecting muskrat carcasses (see page 2) from cooperating trappers to analyze muskrat exposure to contaminants, toxins, and diseases. This will assist us identifying factors influencing muskrat populations, including potential sources of mortality.

Ratios

Category	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Adult Male/Female	1.5	3.64	1.11	1.91	1.34	1.11	1.22	0.80	1.06	1.51	1.00
Juvenile Male/Female	0.96	1.3	1.38	1.93	1.14	1.58	1.11	2.27	0.94	0.74	1.00
Juvenile/Adult	2.12	2.4	1.48	2.66	1.04	2.10	1.80	1.15	0.44	0.80	1.00
Juvenile/Adult Female	5.3	11.36	3.16	7.73	2.43	4.61	4.01	2.08	0.91	2.00	2.00
Sample size (n)	82	199	928	133	2,627	319	2,505	1,407	540	231	5

Be Alert for Yellow Transmitters on Beavers! By Todd Menke (USDA-WS)

The endangered St. Francis satyr butterfly.

Fort Bragg Army Base, one of the largest military installations in the world, is home to 57,000 military personnel along with an increasing beaver (*Castor canadensis*) population. Located in the Sandhills ecoregion, Fort Bragg is dominated by the longleaf pine (*Pinus palustris*) ecosystem, considered one of the most biologically diverse habitats in North America.

The Saint Francis satyr (*Neonympha mitchellii francisci*), an endangered butterfly only found at Fort Bragg and two federally endangered plants: rough-leaved loosestrife (*Lysimachia asperulifolia*) and American chaffseed (*Schwalbea americana*), are all closely correlated with beaver activity.

USDA Wildlife Services personnel collaborated with Fort Bragg Wildlife Branch, North Carolina Wildlife Resources Commission, and National Wildlife Research Center on a project to better understand the impacts of beaver behavior and sensitive species, and beaver impacts on military operational readiness.

Fifty beaver were live-trapped and radio-marked in September 2018 to estimate survival, movement, and habitat use in the absence of lethal and nonlethal practices. The research continued in April 2021 with 50 more beaver being marked to study potential impacts to beaver behavior in the presence of non-lethal practices (e.g. water control devices). All beaver were captured using BMP-approved cable restraints, given cursory health exams, fitted with VHF transmitters on their tails, and released at their capture locations.

The work will support recommendations to improve watershed/forest management plans (including prescribed burning) that maximize biological diversity and minimize wildlife damage (including intensity and frequency of military training activity).

Red arrow pointing to a yellow transmitter.

<u>If anyone traps beaver in Cumberland, Moore, Hoke, or Harnett Counties</u>, be on the lookout for the yellow tail transmitters on beaver tails.

Most of the 100 beaver with these yellow transmitters remain on Fort Bragg, but over time some may disperse off base and end up caught by trappers in adjoining counties.

You can keep the transmitter as an “once in a lifetime prize”, but please contact Todd Menke 919-594-0459 or todd.a.menke@usda.gov. USDA-WS and Fort Bragg would like to know where the beaver was caught to help with the beaver movement research to compare the capture site location to the release site.

Resident Lifetime Trapping License

North Carolina residents can purchase a Lifetime Trapping License. The cost is $300 and all proceeds from the sale of this license will go to the Wildlife Endowment Fund. As of September 14, 2021, 188 lifetime trapping licenses had been sold since Jan. 1, 2020.

Tagging Requirements

Hunters and trappers have up to 30 days after the close of the season to tag bobcat, foxes and otters. However, there are 25 counties in which trappers and hunters are exempt from fox tagging requirements. To order your tags, call 888-248-6834.

Trap Tags

The Commission issues each trapper a Trapper Identification Number (TIN) at the time they purchase or renew their trapping license. This number is on the license.

Either the TIN and Commission telephone number (800-662-7137) or the trapper's name and address can be used on trap tags.

Option 1: Trapper's name and address

Option 2: Trapper Identification Number (TIN) and Commission telephone number (800-662-7137).

Trapping Season Reminder

There is a uniform statewide trapping season for all 100 counties from November 1 through last day of February for the following species:

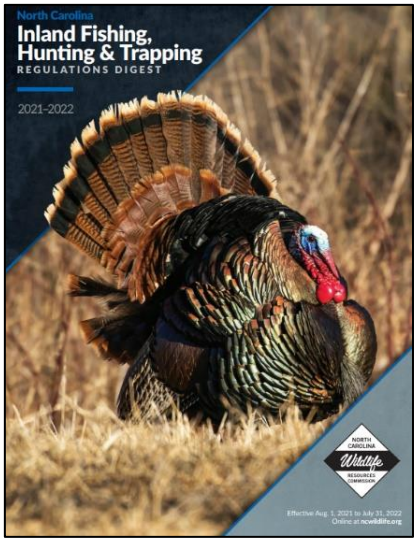
- Armadillo
- Bobcat
- Coyote
- Groundhog
- Mink
- Muskrat
- Nutria*
- Opossum
- Otter
- Raccoon
- Skunk
- Weasel

*There is no closed season on nutria east of I-77.

Beaver: State law established the beaver trapping season Nov. 1 through Mar. 31.

Outside the applicable trapping season, animals can only be trapped under a Depredation Permit. This is a free permit obtained from a Wildlife Enforcement Officer, Wildlife District Biologist, or a Certified Wildlife Control Agent

Rule changes for the 2021-2022 trapping season



During 2021, the Commissioners approved several proposed rule changes that impact trappers for the 2021-22 trapping season. Please see pages 7 through 10 of this newsletter for details. You can also access the 2021-22 Regulations Digest at https://www.ncwildlife.org/Licensing/Regulations for the 2021-22

Trapping on Game Lands:

- Clarifies that coyotes, armadillos, and groundhogs are authorized to be taken on game lands by trapping during the regulated trapping season (November 1 through end of February). This approved rule also clarified that foxes can be trapped on game lands during the regulated trapping season in counties with a local law that authorizes fox trapping in that county. This rule change also establishes a closed trapping season on game lands from April 1 through October 31.
    - *Justification*: There was confusion about the legality of trapping foxes, coyotes, armadillo, and groundhogs on game lands. This rule change clarified the rules for what you can trap on game lands. This rule change also establishes a closed trapping season to avoid conflicts among game land users.
- Clarifies that licensed trappers can use bait on game lands while trapping.
    - *Justification*: The rule about using bait on game lands for trapping had been unclear and various interpretations about this rule had been made by Commission staff and the public. This rule change clarifies that trappers can use bait on game lands while trapping, provides a specific definition of bait, and includes requirements that trappers must follow.
    - *Baiting Requirements*: At each trap, trappers may use a single bait site of grain, fruit, or other foods when trapping if the food is not a processed food product as defined in GS113-294(r), is less than 3 cubic inches, and is completely covered to prevent it from being seen from above. Feathers (including those with attached skin or entire bird wings), hair (with or without skin or hide), and bones that include no attached meat, organs, or viscera do not need to be covered.

Trap Attendance:

- This rule change allows the use of remote trap checking systems in lieu of a physical trap check under specified conditions.
    - *Justification*: Wildlife control agents (WCAs) and the wildlife control industry expressed interest in having remote trap checking systems as an alternative to physical trap check. These devices can decrease response time to an activated trap, which can improve animal welfare. WCAs also stated these devices would increase customer satisfaction and professionalism by improving animal welfare and efficiency. Electronic trap check systems

conforming to the standards in this rule ensures that trap status is reliably determined. The required standards are supported by the wildlife control industry and assures that remote trap monitoring devices used in North Carolina are reliable in detecting and notifying the user of trap activity. These standards also assure that the users of these devices will meet or exceed maximum time requirements for trap attendance.

- *Remote Trap Checking System Requirements*: Remote trap checking systems may be used in lieu of visiting the trap, provided the system has the following features:
    - a control unit that monitors the trap in real-time and reports trap status and unit status to a centralized application database at least once every 12 hours;
    - a software application that notifies the user of unit status, trap activity, and system health issues within 10 minutes of these events via text-based messaging systems, or an in-application notification; and
    - an on-demand test procedure that is used at each deployment of a unit to confirm that the unit is placed in a location where its wireless communication can be received and processed.
        - If the remote trap checking system control unit reports a trap closure, the trap shall be physically visited within 24 hours of the time the trap was reported closed.
        - If a remote trap checking system control unit fails to report its status after a 12-hour period, or reports a system health issue, the trap shall be physically visited within 24 hours of the last time a status report was sent.
        - Remote trap checking system users shall maintain records of trap status and notification alarms for a period of no less than seven days after receipt. Records shall be made available for inspection upon request by a representative of the Commission.

Note: Both WCAs and licensed trappers are authorized to use remote trap checking systems if those systems meet the above specific requirements.

Example of a remote trap monitoring device.

Trapping Live Foxes and Coyotes:


Credit: Jitze Couperus

The North Carolina General Assembly requires all state agencies to periodically review their rules. In 2016, as part of this statutory requirement, the rules regarding licensed fox hunting preserves were reviewed. Due to the substantive public interest the Commission received regarding these rules, revisions were necessary to update language, clarify requirements, address animal welfare issues, and improve regulatory oversight. The following changes were made that impact trappers:

- A transportation permit is now required prior to taking possession of live foxes and coyotes for live sale to licensed fox preserve. Licensed trappers and any individual(s) transporting live foxes and coyotes for live sale shall have a current and valid transportation permit prior to taking possession of the live foxes and coyotes, including removing the animal from the trap.
    - This free permit can be found at ncwildlife.org and click Licensing>Other Licenses & Permits>RAPS>Controlled Hunting Preserve Operator License Application – Fox/Coyote
- Licensed trappers shall keep accurate written records, on a form provided by the NC Wildlife Resources Commission, for each fox or coyote sold or transferred to licensed fox preserve.
    - This report can be found at ncwildlife.org and click Licensing>Other Licenses & Permits>RAPS>Controlled Hunting Preserve Operator License Application – Fox/Coyote
- Live-trapped foxes and coyotes shall not be held for more than 30 days after capture and shall be provided drinking water, food of a type and quantity appropriate for the species, and shelter that protects the foxes and coyotes from direct sunlight and precipitation.

Wildlife Control Agent (WCA) License

The WCA program allows trained and licensed individuals to issue wildlife depredation permits to landowners that experience property damage caused by wildlife. Depredation permits are needed to trap and lethally control wildlife outside the regulated trapping season. Licensed WCAs are authorized to issue permits for controlling certain wildlife species that are causing property damage.

Changes in 2021:
The NC General Assembly passed Session Law 2019-204, which created the Wildlife Control Agent (WCA) License and Alligator Control Agent (ACA) certification. In response to passage of the session law, the NCWRC drafted rules to implement SL 2019-204. On February 25th, 2021, the NCWRC approved a new set of rules (15A NCAC 10H .1500)

that regulate licensing and standards for WCA and ACA. These rules replace requirements of the Wildlife Damage Control Agent program.

WCA Eligibility and Requirements:
To engage in wildlife damage control or wildlife removal activities for compensation, including eviction or exclusion activities, an annual WCA license is now required ($50). Licensed trappers are excluded from the WCA license when taking wild animals during the applicable open trapping season for that species.

To qualify for a WCA license, individuals must complete a WCA training course (the 2-day "certification" training course), pass an exam with a score of 80%, and have no misdemeanor convictions as specified in G.S. 113-294 or G.S. 14, Article 47. This 2-day training course covers laws, rules, health considerations, and humane handling techniques. Currently certified WCAs do not have to take this course again to qualify for and purchase the WCA license.

WCA License Renewal and Revocation:
WCA license renewal is done by completing at least one Commission-approved continuing education course within the previous year (see ncwildlife.org/wca for courses). If a license is not renewed for two consecutive calendar years, the individual will be ineligible for renewal and must repeat the requirements for licensure. WCA licenses may be revoked at any time.

Selling your Furs

To find where you can sell your fur, we have a "Selling Fur" section on our website. It has information on local fur dealers, fur pick-up schedules & locations, and fur auctions. This information is updated monthly from December 2021 through February 2022 at ncwildlife.org/sellingfur

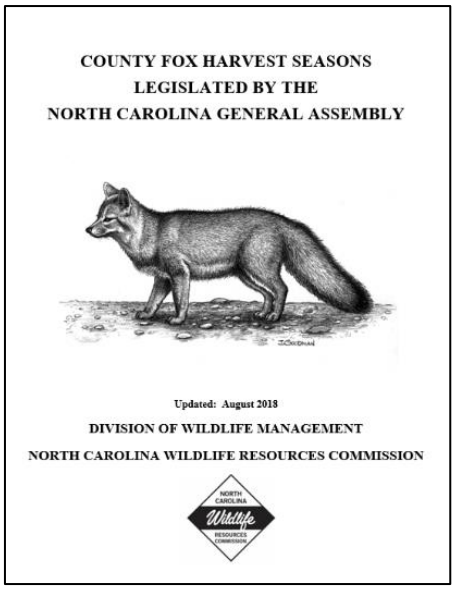
Fur dealer inspecting furs at the Virginia State Fur Sale in Wytheville, VA held every March.

Trappers waiting to sell their fur to Groenewold Fur & Wool Co., which has pick-up sites throughout North Carolina every March.

NC fur buyer, Kevin Myers, inspects otter pelts at Marshall in March.

Fox trapping seasons

As of Sept. 14th, 2021, the NC General Assembly had not passed any local laws during the long session that created a fox trapping season in a new county. As a reminder, the NC Wildlife Resources Commission does not have the authority to create fox trapping seasons; only the NC General Assembly has that authority.


COUNTY FOX HARVEST SEASONS
LEGISLATED BY THE
NORTH CAROLINA GENERAL ASSEMBLY

Updated: August 2018
DIVISION OF WILDLIFE MANAGEMENT
NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

There are 55 counties with fox trapping seasons in North Carolina. Outside these 55 counties, you cannot trap foxes during the regulated trapping season and any fox captured must be released in those 45 counties without a fox trapping season.

For more information on fox hunting and trapping seasons, including county-specific restrictions and season dates please go to: ncwildlife.org/foxseasons

Trapper Educational Opportunities

Due to Covid-19, the North Carolina Wildlife Resources Commission had to cancel our most of the free Trapper Education Courses during 2020 and part of 2021. We hope to start offering these courses more often again in 2022.

Go to ncwildlife.org/trappered and click “Basic Trapper Education Courses” tab to see what courses are available and to sign up. Courses are often added throughout the year, especially in spring and summer. Courses are based on availability of our volunteer trapper educational instructors.

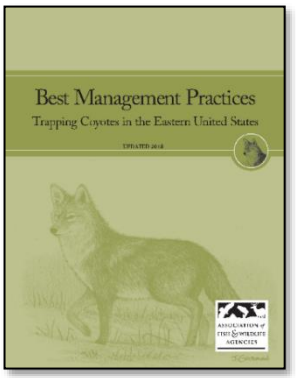
Courses are often offered throughout the year in several wildlife districts in partnership with the North Carolina Trappers Association. In addition to learning trapping regulations, and the basics of trapping techniques, fur handling, and safety, this course qualifies for reciprocity with other states that have mandatory trapper education to purchase a trapping license.

Advanced Trapping Workshops

The North Carolina Trappers Association (NCTA) offers advanced hands-on trapping workshops. Want to improve your trapping skills? Are you a Wildlife Control Agent that wants to expand into other species besides squirrels? To learn more and for instructions on signing up for either workshop, go to nctrapper.org/advanced-classes

Trapping Best Management Practices (BMPs)

Trapping BMPs are carefully researched **recommendations** designed to ensure animals are **humanely captured**. Developed as part of the **largest trap research effort** ever conducted, BMPs feature the **latest scientific information** about trapping techniques and equipment, along with practical advice from *experienced trappers* and wildlife biologists.

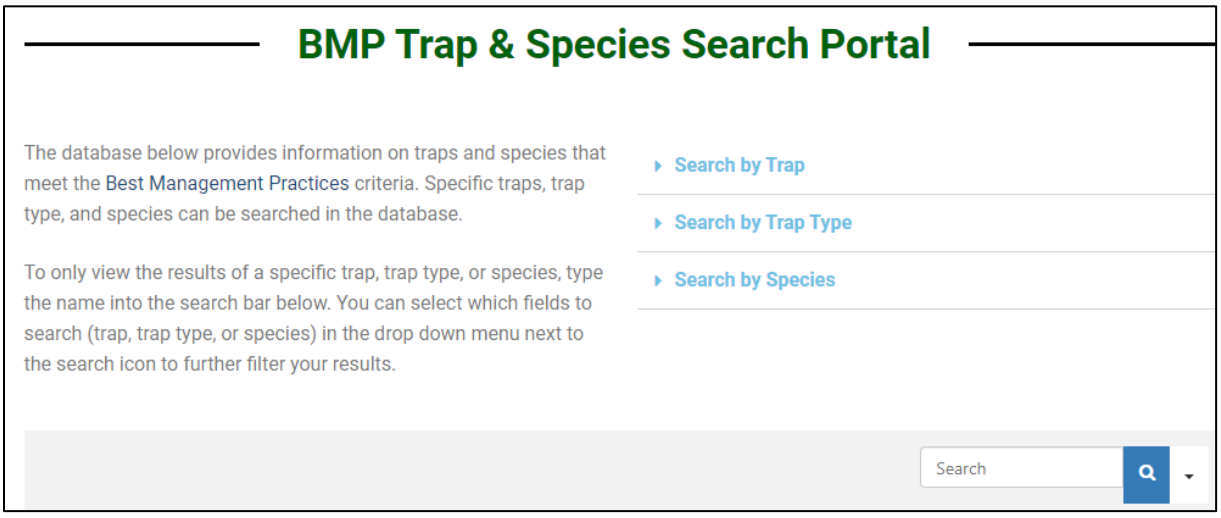


BMPs are intended to inform people about traps and trapping systems considered to be state-of-the-art in animal welfare, efficiency, selectivity, and practicality.

The BMPs serve as a guide to inform trappers about trap-types they should consider using for capturing a specific furbearer, including bobcats, coyotes, beaver, and raccoons!

Trapping BMPs exist for 22 species of furbearers:
furbearermanagement.com

To make it easy to find a BMP-approved trap, this website has a trap search portal, where you can search for BMP-approved traps by trap-type (e.g., foothold, bodygrip), species, or trap brand.



Trapping BMPs, combined with Trapper Education Programs, are intended to maintain the integrity of furbearer management programs throughout the nation and to sustain trapping methods now and in the future.

Number of Licensed Trappers

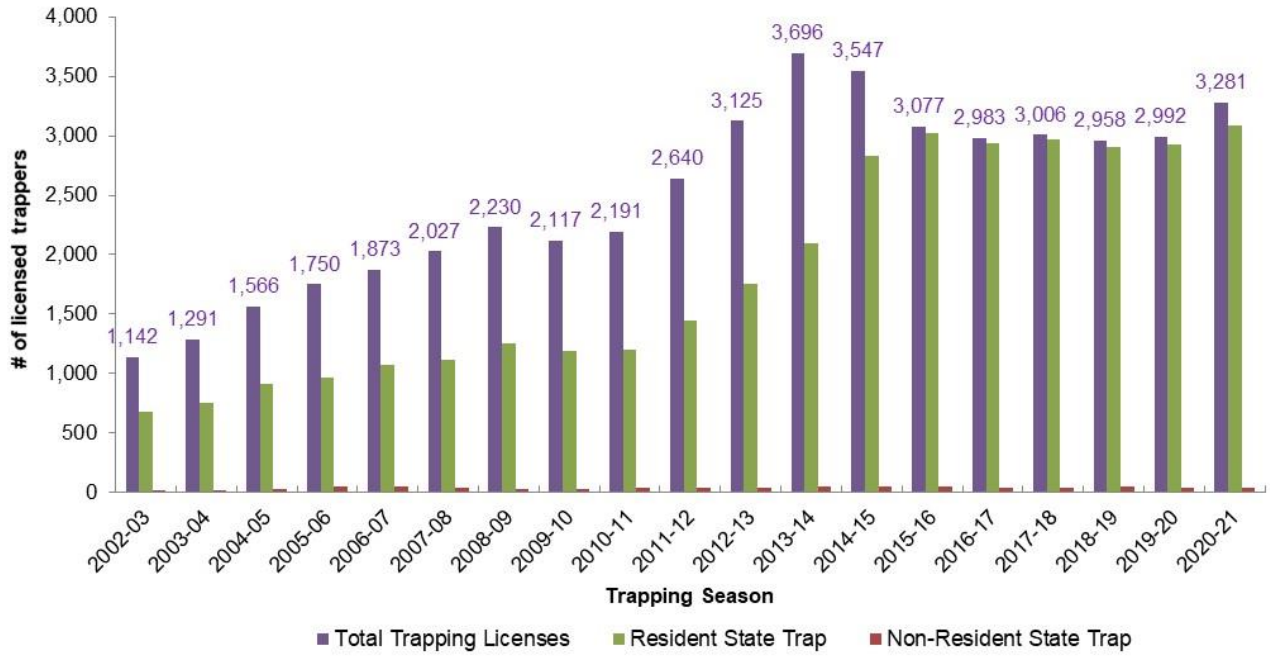


Figure 3. The number of licensed trappers in North Carolina from the 2002-03 trapping season through the 2020-21 trapping season.

During the 2020-21 season, there were 3,281 licensed trappers, a 10% increase in license sales compared to the 2019-20 season. This is the 3rd highest number of licensed trappers since the 1986-87 season. The increase in trapping license sales likely reflects the "COVID effect" that several states, including North Carolina, have experienced. During 2020, many North Carolinians reconnected with the outdoors, including participating in regulated hunting and trapping.

Of the licensed trappers that comprised the 2020-21 trapping season, 26% (n=863 trappers) had not purchased a trapping license in the previous 5 trapping seasons, indicating they were either new to trapping or had stopped trapping for greater than 5 seasons. When we compare these "new" trappers to trappers who have trapped multiple seasons, we find that the new trappers are more likely to be younger (average age=39.5 yr. old), female (4%), and a live in the Piedmont Furbearer Management Unit (PFMU; 40%).

			Trapper's FMU of Residency			
Trapper Type	**Percent Female**	**Average Age**	**Coastal FMU**	**Piedmont FMU**	**Mountain FMU**	**Non-resident**
New Trappers in 2020-21 season	4%	39.5 yrs. old	44%	40%	15%	1%
Licensed trappers who trapped >2 seasons	2%	46.4 yrs. old	48%	35%	15%	2%