



# New Jersey Furbearer Management Newsletter Spring-Summer 2019

## New Jersey Division of Fish and Wildlife Upland Wildlife and Furbearer Project



### Upcoming Trapper Convention Dates, Summer/Fall 2019

June 27-29 Pennsylvania Trappers Association Annual Rendezvous, Washington, PA

**June 30 NJ Trappers Association Summer Picnic @ Oxford Furnace Lake in Oxford NJ (starts noon)**

July 11-13 NTA Convention @ Ozark Empire Fairgrounds (3001 North Grant Ave. Springfield MO)

Aug 29-31 NY State Trappers Association Annual Convention @ Frankfort NY

**Oct 6 NJ Trappers Association Annual Convention @ Space Farms in Beemerville NJ**

**Nov 3 NJ Fur Harvesters Annual Convention @ Atsion State Park in Shamong Twp., NJ**

#### Remember:

- To trap or use a cable restraint a person must have first passed a Fish and Wildlife-approved trapper education course which included use of cable restraints and carry the certificate while trapping.
- Dispatching furbearers with .22 caliber shorts require trappers to have a valid Rifle Permit. A Rifle Permit is **not** required to dispatch furbearers with an air gun.
- Any person must be at least 12 years of age in order to obtain a trapping license.  
**TAKE A KID TRAPPING!**
- **Sept 21-22 Trapper Education Class @ Hackettstown Fish Hatchery. Click [here](#) to register.**



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## 2018-19 NJ Trapper Harvest Survey – Some Preliminary Results

There were 1,192 trappers with a 2018 trapping license (including previously licensed Youth Trappers). Resident trappers totaled 1,174 (99%) of which 27% resided within northern region counties, 29% within the central region counties and 44% within the southern region counties (regions represented on the NJ Fish & Game Council). The 18 non-resident trappers resided primarily in PA (13), but also in AK, DE (2), ME and VA. The average age of all trappers was 48 years.

All licensed trappers were either provided with a link to the online survey (via email, n = 971) or mailed a paper-based survey (n = 221). Trappers with email addresses were given the option to respond via a paper-based survey, and those with an invalid email address were mailed a paper survey. A total 266 useable survey responses were received by April 15 (23% response rate). The survey asked a variety of general information questions such as: how many years of prior experience (average was 23); should harvest reporting be mandatory or remain voluntary (31% said mandatory); awareness of Best Management Practices for Trapping in the United States (42% heard of BMP); affiliation with a trapping organization (55% were affiliated nationally and/or locally); number of days trapped (average was ~32); if traps were stolen or tampered with (22% said they were); if stolen/tampered with, was a report made (23% of those affected did so); and, were you successful in taking fur (87% of active trappers were successful). Data from 142 beaver and otter trappers was added to the survey database resulting in an estimated 68% of licensed trappers were active during 2018-19.

Harvest for numerous furbearing animals were estimated based on survey results as follows: 1,027 mink; 4,558 muskrat; 3,613 red fox; 130 gray fox; 649 opossum; 3,277 raccoon; 289 skunk; 3 long-tailed weasel; and, 9 short-tailed weasel. Reported trapper harvest of beaver, river otter and coyote were 608, 39, and 144, respectively.

Final survey results and information on BMPs will be posted on the Division website later this year.

## The Heaviest River Otters in New Jersey

In the Fall 2017 edition, we presented data on the state's largest beaver. Several trappers asked similar questions regarding river otter - where are New Jersey's heaviest river otter found?

The Division has been collecting otter carcasses since 2005 to collect biological data including sex, age, weight and length in addition to DNA samples from both harvested and road-killed otters. A canine tooth is taken from the lower jaw of every otter specimen. Clearly, the entire carcass is needed to determine age, length and weight of otter specimens.

Through the 2017-18 trapping season, weights were collected on 530 known age otter carcasses. There are several ways to measure how an otter is "big". River otters, like all members of the weasel family, exhibit sexual dimorphism (one sex – in mustelids, male - is noticeably larger than the other). In New Jersey, male otters are in general about 25% heavier than females, averaging 7.5 kg (*16.6 lbs.*) compared to females averaging 6.0 kg (*13.3 lbs.*).

The following table shows weights of the heaviest otters taken in NJ that meet or exceed 9.0 kg (*19.8 lbs.*). Keep in mind that all weight data are for skinned carcasses. The heaviest otter weighed to date, a 2017 incidental capture from Zone 7 weighed whole, tipped the scales at 17.0 kg (*37.6 lbs.*)! Unfortunately, we have no sex or age for this individual. The oldest otter recorded to date was a 16-year old male collected as a road kill in 2016 from Zone 10 that weighed in whole at only 7.0 kg (*15.4 lbs.*).

*Location of NJ otters weighing  $\geq 9.0$  kg, 2005-2018*

| Mgt. Zone    | # Male    | # Female | Min. Age   | Max. Age   | Avg. Age   | Avg. Wt. (kg) |
|--------------|-----------|----------|------------|------------|------------|---------------|
| Zone 6       | 1         |          |            |            | 3.0        | 9.9           |
| Zone 7       | 1         |          |            |            | 3.0        | 9.2           |
| Zone 8       | 7         |          | 1.0        | 7.0        | 3.1        | 9.3           |
| Zone 10      | 2         |          | 2.0        | 4.0        | 3.0        | 9.7           |
| Zone 11      | 1         |          |            |            | 3.0        | 10.7          |
| Zone 13      | 7         |          | 1.0        | 9.0        | 3.0        | 9.9           |
| Zone 14      | 2         |          | 1.0        | 4.0        | 2.5        | 9.5           |
| Zone 15      | 6         |          | 1.0        | 5.0        | 2.3        | 9.6           |
|              |           | 1        |            |            | 5.0        | 9.3           |
| Zone 16      | 1         |          |            |            | 2.0        | 9.1           |
| Zone 17      | 1         |          |            |            | 1.0        | 9.3           |
| Zone 18      | 8         |          | 1.0        | 7.0        | 3.3        | 9.6           |
| Zone 20      | 1         |          |            |            | <1.0       | 9.9           |
| Zone 25      | 3         |          | 3.0        | 7.0        | 5.0        | 9.6           |
| Zone 30      | 2         |          | 2.0        | 8.0        | 5.0        | 9.2           |
| <b>Total</b> | <b>43</b> | <b>1</b> | <b>1.0</b> | <b>9.0</b> | <b>3.1</b> | <b>9.6</b>    |

The odds of capturing a “heavy” otter are low since they make up only about 8% of the 14-year database. But if seeking a big otter is your goal, we might recommend trapping in Zones 8, 11, 13, 15 or 18 as 30 of the 44 (68%) heaviest otters were found in these coastal zones where food is abundant.



### **Muskrat Research - Sexing and Aging Muskrats by Pelt Patterns**

Have you been to Space Farms during the March NJ Trappers Fur Sale and wondered what the guy was doing at the table over in the corner with the pile of muskrat pelts at his feet? Division Upland/Furbearer Research project staff have collected age and sex information on over 7,000 muskrat pelts at NJ fur sales since 2009 to measure productivity of the state’s muskrat population.

Muskrat age and sex are determined by examining the molt patterns on stretched pelts. Molt patterns prior to priming determine age while presence or absence of visible nipples on the belly side of the pelt determines sex. Juvenile molt patterns have a characteristic “lyre” shape. Adult molt patterns are mottled with no uniform shaped pattern. The following photos illustrate the patterns.

**Juvenile Muskrat Pelts (Below)** Note the symmetrical lyre shaped patterns



Photo credit: West Virginia Division of Natural Resources

**Adult Muskrat Pelts (Below)** Note: the overall mottled appearance.



Photo credit: West Virginia Division of Natural Resources

*NJ Muskrat Age and Sex Data, 2009-2019*

| Year | # Examined                                       | Adult M/F | Juv. M/F | Juv./Adult | Juv./Adult F |
|------|--|-----------|----------|------------|--------------|
| 2009 | 804  | 1.59      | 1.76     | 0.55       | 1.17         |
| 2010 | 957  | 0.75      | 1.54     | 4.79       | 8.40         |
| 2011 | 1,077  | 0.87      | 0.99     | 2.47       | 4.62         |
| 2012 | 970  | 1.20      | 0.91     | 0.35       | 0.78         |
| 2013 | 1,421  | 1.36      | 1.01     | 0.43       | 1.02         |
| 2014 | 422  | 0.88      | 0.67     | 0.55       | 1.03         |
| 2015 | No effort due to illness of primary investigator |           |          |            |              |
| 2016 | 392  | 1.10      | 1.01     | 0.92       | 1.93         |
| 2017 | 363  | 1.52      | 0.77     | 1.48       | 3.72         |
| 2018 | 358  | 1.24      | 0.91     | 2.81       | 6.29         |
| 2019 | 237  | 1.75      | 1.52     | 0.29       | 0.79         |

Most trappers over 60 years old or so remember starting their trapping years by seeking muskrats in every little ditch and pond when they were kids. Muskrats are common in tidal marsh systems, but harder to find elsewhere lately in NJ. This trend is not unique to New Jersey. Harvest declines have been commonly reported throughout the Northeast, Southwest and Midwest regions. Rich Rogers, Furbearer Project Leader from West Virginia's Division of Natural Resources, is supervising and managing the collection of those data from the states involved. Rogers' insight based on muskrat age and sex reports from various states were:

*“Currently, there are no known causes of the decline. There may actually be a suite of reasons including hydrological changes, water quality, predation, and disease. Most researchers at this point lean toward changes in hydrology and water quality. A recent study in the Midwest identified increasing numbers of high-water events flushing muskrats from dens significantly increased predation as a cause of mortality. This, however, does not explain why similar declines are found in tidal wetlands where muskrats have flourished in the past with daily water level fluctuations. Pennsylvania is examining cause specific mortality by examining muskrat carcasses and testing tissue samples for a variety of diseases and toxins. West Virginia is currently examining muskrat livers to check for evidence of cyanotoxin presence or damage. Cyanotoxins are byproducts of blue green algae blooms which have become increasingly common in all wetland types in the US in recent years and are extremely toxic to living organisms.*

*Regarding age and sex ratios, nothing appears to be out of the ordinary in most of the data collected by NE or SE states [nothing stands out in NJ's data – ed]. However, this is good baseline data to have for future reference. A lot of people seem to be wanting to jump on the climate change bandwagon. In my humble opinion, this does not seem to be likely for a species with a high reproductive capacity and that is highly adapted to changing water levels in much of its range. So, we may be looking at the effects of several issues that may be having an impact on muskrats. In other words, a perfect storm”.*

In New Jersey, muskrat harvest per 100 trap-nights since 2005 has ranged from 3.9 (2010) to 9.8 (2018) and averaged 7.2 (the 14-year trend line is nearly flat). Although the number of trapping license sales have increased over this period, muskrat trappers constitute a smaller percentage of licensed trappers (i.e., newer trappers not targeting muskrat). Active muskrat trappers have generally been aging from about 47 years old in 2010 to nearly 54 years old in 2018. This may explain the reduced effort (nearly 1 million trap-nights in 2010 to less than 100,000 in 2018) and the higher than average catch per 100 trap-nights (those older muskrat trappers are very experienced, and may simply have a long tradition of trapping muskrat). Low realized pelt prices affect

effort, too. The new or casual trapper may not think projected muskrat pelt prices published in trapping magazines make their effort worthwhile.



### **More on New Jersey Fishers**

The ridges of New Jersey were historically fisher's range, and the animals have reappeared throughout the northern counties of the state since they were reintroduced in the adjoining states of Pennsylvania and New York over the last two decades. New York transferred 30 fishers from the Adirondacks into the Catskills Region during 1979, and current populations in northeastern Pennsylvania may have been colonized or enhanced by natural dispersal from New York. Most recently and significantly, during 1994-1998, through a joint project between the Game Commission, the Pennsylvania State University and



the Department of Conservation and Natural Resources, 190 fishers were reintroduced in six sites in northern Pennsylvania.

So, if you spend enough time in woods along the ridges of northern Sussex County your chances of seeing a real, live fisher are getting better all the time! The recent Division bobcat study work conducted in northern counties of the state turned up a few more videos of fishers again in Winter/Spring 2019. Fishers were recorded in woodland habitats in Sussex, Warren, Morris and Passaic counties.

Many people think of fishers as some kind of horror story animal and fear them with the television cartoon-character Tasmanian Devil type-animal that habitually will target people's pets, cats, dogs and gnaw through doors like a buzz saw. This is just not the case! Fishers are indeed members of the weasel family and as such are predatory, tough critters. Fishers feed mostly on smaller prey (squirrels, chipmunks and birds) and the occasional (in NJ at least) porcupine. They will also scavenge whatever they happen upon.

Another oft-reported concern is the presumed sounds that fishers are thought to make. Fishers are often blamed for a nighttime sound like a scream, repeated at regular intervals. These recordings are all over the internet, with the animal making the sound not visible. However, this sound is not likely a fisher at all, but rather the call made by a red fox. Dr. Roger A. Powell studied fishers for many years, wrote a book on fisher biology, raised them in captivity, and knows the fisher's habits and vocalizations. Dr. Powell indicates that fishers do not vocalize very much at all (much less scream).



## **Fox and Coyote Fur Handling Video (NAFA)**

<https://www.youtube.com/watch?v=7PhqJdH6uIY>

This new video is well worth watching! Information for both experienced and beginning trappers on fur handling of canids. Lots of tips. Narration and expert advice by Serge Lariviere.

### **Please Remember to Report Your Coyotes!**



NJ Regulations require all coyote harvesters to report their take to a Division Regional Law Enforcement office within 24 hours.

### **Regional NJ Fish and Wildlife Law Enforcement Office phone numbers:**

Northern Region Office (908) 735-8240

Central Region Office (609) 259-2120

Southern Region Office (856) 629-0555

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| The Upland Project also has a dedicated hotline for successful coyote hunters and trappers at (609) 748-2058. |
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### **Bobcat Capture Reporting**

Trappers are reminded that it is mandatory to report any and all bobcats that are trapped incidentally within 24 hours by calling **1 (877) 927-6337** (see NJAC 7:25-5.6). However, please report any bobcats caught in a cable restraint as soon as you find it! Immediate reporting is important for the survival of the animal as well as the image of trapping in New Jersey. A Division staff member will come to immobilize, tag, take DNA samples and assure that the animal is healthy prior to release.

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| <i>The New Jersey DEP Division of Fish and Wildlife is the professional, environmental agency overseeing the protection and management of the State's fish and wildlife resource to maximize their long-term biological, recreational and economic value of all New Jerseyans.</i> |
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