



# New Jersey Furbearer Management Newsletter Spring 2017



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

### 2016-17 TRAPPER HARVEST SURVEY REMINDER – RETURN BY APRIL 15!

•MAILED ON OR ABOUT MARCH 15 TO ALL 2016 NJ TRAPPING LICENSE BUYERS AND PRIOR YOUTH

SURVEY RESULTS PROVIDE IMPORTANT INFORMATION USED TO EVALUATE, PLAN AND IMPROVE RECREATIONAL TRAPPING IN NJ. THEY ARE ALSO USED TO ESTIMATE HARVESTS FOR FURBEARER SPECIES, EVALUATE POPULATION TRENDS AND CALCULATE THE VALUE OF TRAPPING TO THE STATE'S ECONOMY.

**IF YOU RECEIVED A TRAPPER SURVEY IN THE MAIL PLEASE COMPLETE IT AND RETURN IT, ASAP.**

### Important Upcoming Dates:

- April 8 – Trout season opens!
- April 11 – Fish & Game Council meeting at Central Region Office (10AM)
- **April 15 – All Trapper Harvest Surveys must be postmarked by this date to be accepted as valid.**
- **April 18 – Game Code public hearing on proposed 2017-18 changes at Conservation Center (6:30PM)**
- April 22 – Youth Turkey Day
- April 24 – Spring Gobbler Turkey season begins (Period A)
- April 29 & 30 – NJSFSC Annual Convention @ Port-O-Call Hotel in Ocean City



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- **Furbearer Facts: Dracunculiasis (aka Guinea Worm Disease)**
- **New Jersey Coyotes: Where aren't they?**
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*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*

## Did I see a Mink? Or, is it a Fisher?

Over the last half dozen years the Division's Upland Wildlife and Furbearer project regularly receives pictures from trappers and the public, mostly images from trail cameras or cell phones, of what are perceived to be fishers. More often than not, the image captured is that of a mink. Both these weasel family species exhibit sexual dimorphism (i.e., differences in appearance between males and females in color or size), with males being generally larger in size and weight than females of the same species. A large buck mink can often be mistaken for a female fisher, so here's some tips on how you might tell the difference.

<i>Characteristic</i>	<i>Mink (Mustela vison)</i>	<i>Fisher (Martes pennanti)</i>
<i>Length</i>	Males: 20-30 inches Females: 16-21 inches	Males: 34-47 inches Females: 30-37 inches
<i>Tail length</i>	Less than ½ of body length	About 2/3 of body length
<i>Weight</i>	Males: 1 ½-3 pounds Females: 1 ½-2 pounds	Males: 7-13 pounds Females: 3-7 pounds
<i>Coloration</i>	Medium to dark brown (appearing black when wet), with dark tipped tail	Dark brown with lighter grizzled fur on head, neck and shoulder area
<i>Field marks</i>	Chin is usually light colored or white	May have white or light markings on throat, chest or underbelly, which may not be visible on a live, moving animal
<i>Thing to notice</i>	Squirrel-size animal; short stubby legs; shorter tail in relation to body	House cat-size; longer in the leg; longer (and fuller) tail in relation to body size

### Habits

Although both mink and fisher are species that are found in woodland habitat, mink are a semi-aquatic animal usually found near water whether it be brooks, rivers, ponds or lakes (including saltwater tidal areas). If the animal you see is a small, slender mammal swimming, it's almost certain to be a mink. Fish and other aquatic prey are a major component of the mink's diet, and although mink may climb trees, mink generally do not pursue prey into the treetops as a fisher often might.

Regardless of the name, fishers don't fish. Nor, are they a cat as their common name "fisher cat" might suggest. Fishers aren't swimmers by choice, and in fact, they are most at home in upland woodlands and are quite adept in climbing trees in pursuit of prey. Fishers can rotate their hind limbs to permit a squirrel-like, headfirst descent of trees which greatly increases their arboreal ability. Their broad paws work fairly well to enable the animal to run across a fresh blanket of snow without sinking too deeply, but deep snows can limit their mobility. The fisher's diet consists almost exclusively of small mammals or birds.

Check out the following images comparing mink and fisher, in size, shape, conformation and markings.



(Above, left and right) Skulls of female fisher (on left in both images) and of a large mink (on right in both images). Note how small the mink skull is compared to the female fisher skull.

Note the short stubby legs, relative length of the tail compared to the body and ear size on the mink (below left) compared to the 4.4 lb. road-killed female fisher (below right)



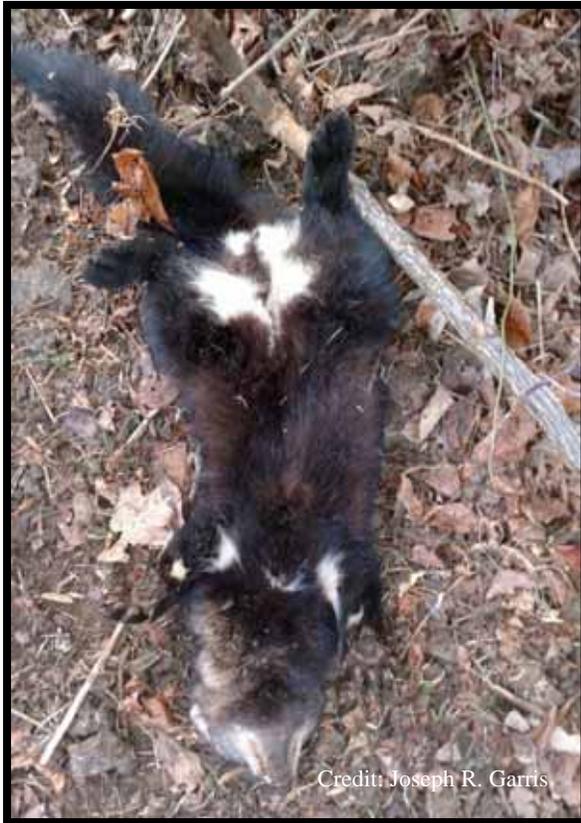
Compare the very large male mink (below, left) to the immobilized 11.46 lb. adult male fisher (below, right) and note the difference in length of legs, length of tail in relation to body size, and the grizzled fur on the head and shoulders (of the fisher).



Compare these trail camera images of fisher (**top**) and mink (bottom)



Compare the underbellies of the male fisher (**below, left**) and that of the average size mink (**below, right**). The mink's white chin markings are barely visible at the arrow.



**If you encounter a live fisher (or bobcat) captured on your trapline, do not disturb the animal or the set, but immediately notify Fish and Wildlife by calling (877) WARNDEP (877-927-6337).**

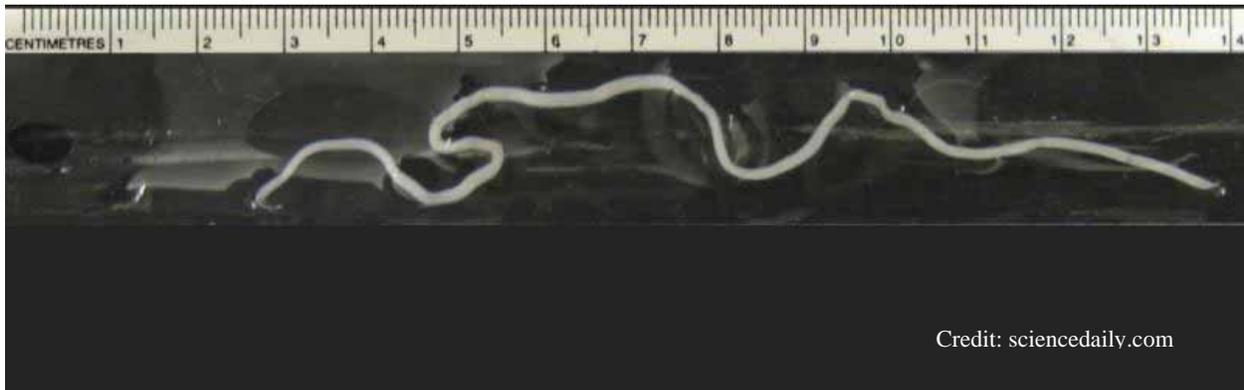
A Fish and Wildlife technician will provide further instructions. Call the same number for either a dead bobcat or fisher on your trapline; a Fish and Wildlife technician will arrange to pick up the animal. Biological samples will be taken from all bobcat and fisher carcasses. The data collected will be instrumental to understand the status of the species populations.

The Division's Upland Wildlife and Furbearer Research Project would like to ask anyone who might have trail camera pictures of fishers to share them with us! We hear, usually second or third hand that quite a few of our trappers and hunters have seen them and have captured trail cam pictures but we've rarely receive a picture of a fisher. Please send any pictures of fishers to: [joseph.garris@dep.nj.gov](mailto:joseph.garris@dep.nj.gov)



## Furbearer Facts: Dracunculiasis (aka Guinea Worm Disease)

Ever skin a raccoon or mink and noticed long, white, thread-like worm protruding from the wrist area or rear leg of the carcass? If so, then you've probably encountered a nematode parasite known as *Dracunculus insignis*, commonly known as Guinea worm. It is not transmissible to humans, but trappers should always wear appropriate protection whenever handling fur as a general practice. Guinea worms have been found in many North American furbearers such as raccoon, mink, striped skunk, fox, muskrat, fisher, weasels, opossum and badger. Infection is usually associated with furbearing species that are found or feed in or around water sources, however, raccoons are the preferred host for *D. insignis*. The adult worms differ from each other in appearance. The males measure 1.5 to 4 cm (.6 to 1.6 inches) in length and are dark and extremely slender. The female worms are long and slender, measuring up to about 28 cm (11 inches) in length and are white (see image below).



Gravid adult female Guinea worms are found in the space just under the skin of the front and hind legs, thorax, abdomen and groin. The front end of the pregnant female penetrates the skin resulting in the formation of a blister, then the blister will rupture and an ulcer forms. When the ulcerated area contacts water, the skin over the worm ruptures. First-stage larvae are then released into the water to be ingested by an intermediate host (i.e., a copepod commonly known as the water flea, or cyclops). The infected cyclops may contain from 1 to 23 larvae which will develop to the infective third-stage larvae in a few weeks.



Image of rear leg of raccoon where female *Dracunculus insignis* have emerged. Those ruptured spots have healed in this image.

Frogs or fish may serve as an accumulator or reservoir for the infective stage larvae by eating the infected cyclops. The accumulation of the infective larvae maintains the high concentration of the worms in these hosts. The infective third-stage larvae most certainly remain alive in frogs for a long time, so hundreds of larvae can be nurtured by a single frog.

A furbearer host becomes infected by eating infected frogs or fish, or by drinking water containing infected cyclops. Once ingested, Guinea worm larvae are released in the intestinal tract of the furbearer, penetrate the intestinal wall and migrate through the body cavity to the tissues of the abdomen, chest cavity and groin where they mature. The period from infective stage larvae to a mature adult can be about a year, but possibly less than 8 weeks. After maturation, the worms mate, and egg development in the female begins. Males and immature female worms remain in their original locations in the infected animal but the egg-bearing females migrate to the legs with larvae developing within the eggs during the females' migration. Females bear live young and may be found as early as 120 days post-infection in the infected animal's legs. After the young are produced, the female, in addition to the adult male and immature worms, may die and become calcified and resorbed by the system of the host animal.

Transmission of *D. insignis* in raccoons is confined to only a few weeks of the year. Adult worms are usually present in late spring or early summer which corresponds with changes in the host animal's food habits and association with water. Infections in mink or river otter are not as seasonal as those of the raccoon due to the mink's year-round habits of immersion in water and feeding on aquatic life. Raccoons may serve as a reservoir host for *D. insignis* and there is a higher chance of infection in mink when raccoons share the same habitat.

Infected raccoons generally will be inactive for 30 to 60 minute periods and move slowly and then only with difficulty. The animals may frequently raise affected legs for short time intervals and scratch the skin overlying the area under which lies the pregnant worm. Guinea worms are not a mortality factor to be concerned with as these infections are limited to the subcutaneous spaces of the legs. Pelt quality is not compromised by the worm's presence in a furbearer because any holes/ulcerations occur only on the legs.

Infection can be diagnosed by finding and identifying the adult worms. The adult female worms may be removed through the skin opening on the legs or by surgical dissection. Removal of the worms is very difficult and usually not done on wild mammals. The worms are more likely to be found if both the pelt and carcass of harvested furbearers are examined, not just the carcass.

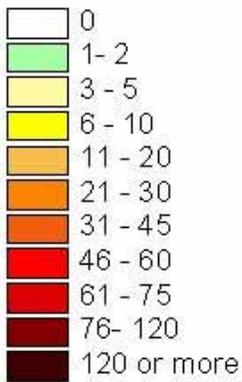


# New Jersey Coyotes: Where aren't they?

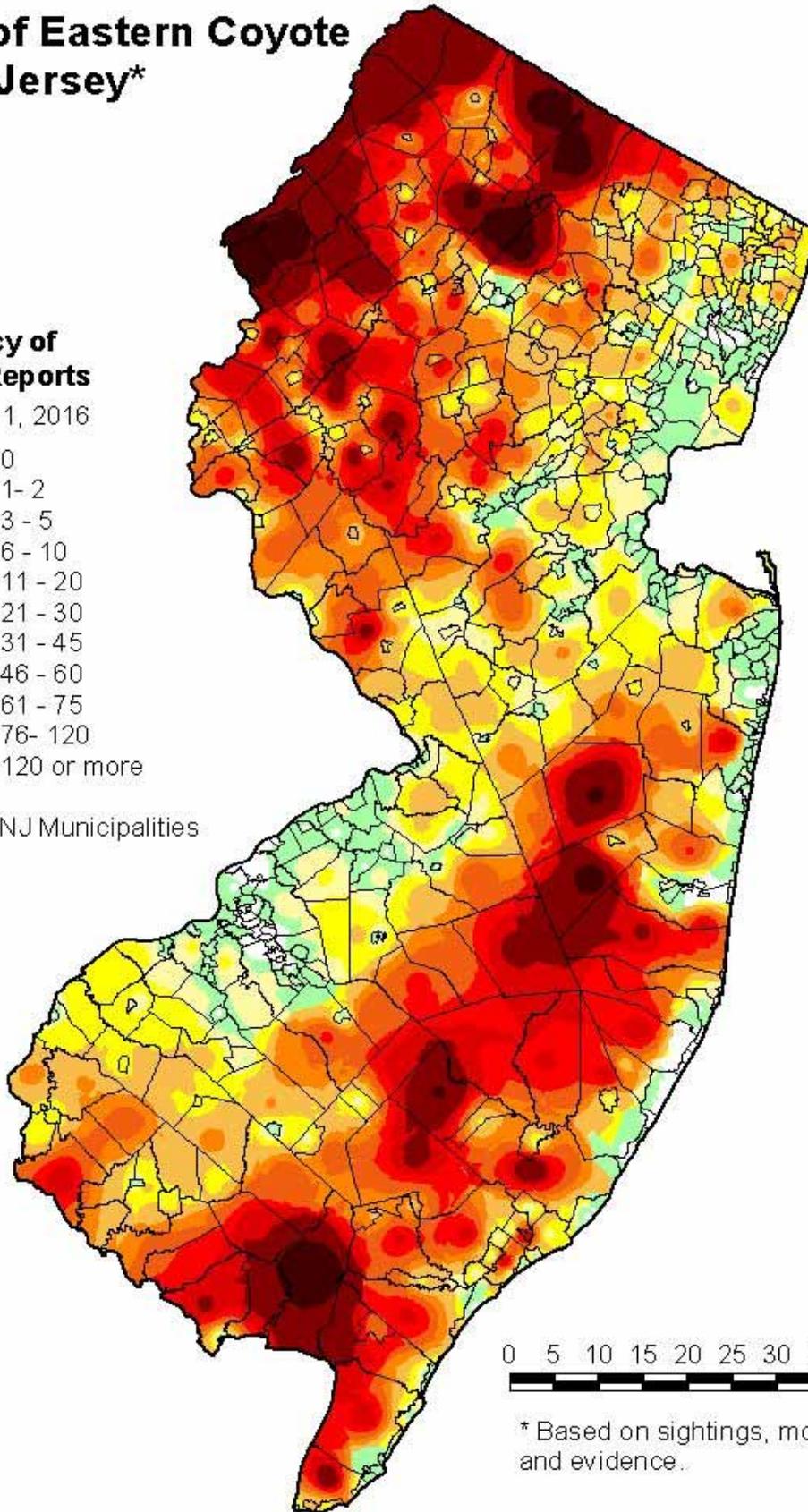
## Range of Eastern Coyote in New Jersey\*

### Frequency of Coyote Reports

as of July 1, 2016



 NJ Municipalities



0 5 10 15 20 25 30 35 40 Miles

\* Based on sightings, mortalities and evidence.

**Municipalities with over 120 coyote reports\***

<b>County</b>	<b>Municipality</b>	<b>Number of Reports</b>
Cumberland	Maurice River	182
Warren	Blairstown	154
Morris	Jefferson	147
Ocean	Manchester	146
Passaic	West Milford	144
Morris	Rockaway	142
Sussex	Sparta	141
Sussex	Vernon	139
Atlantic	Mullica	136
Warren	Knowlton	134
Warren	Allamuchy	130
Ocean	Jackson	130
Warren	White	123

\*total number of reports, all years; includes mortalities, sighting and any other incidents.

Think you know the New Jersey coyote? Compare notes with furbearer biologist Andrew Burnett at the NJ State Federation of Sportsmen’s Clubs convention on April 29 at Ocean City. Burnett will give a presentation on coyote ecology, history, distribution and population, impacts on other species and avoiding negative interactions 9:30 AM Saturday morning at the Port-O-Call Hotel.



**Please Remember to Report Your Coyotes!**

Coyotes harvested by any method must be reported to the nearest NJ Division of Fish and Wildlife 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 |



**Bobcat Capture Reporting**

Remember to report any bobcat captures ASAP! Beginning with the 2015-16 Trapping season it became mandatory to report any and all bobcats that were 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 in it! It’s important for the survival of the animal as well as the image of trapping in New Jersey. A Division staff member will come and immobilize, tag, take DNA samples and assure that the animal is healthy prior to release.

## Legislative Update

A host of legislative bills are introduced every year. Below is a list of current bills. Those beginning with “A” are Assembly bills; those beginning with “S” are Senate bills; “CR” means Concurrent Resolution. Identical bills (for example, A122/S485) have been grouped together. Bills that have passed committee votes are followed by the date passed; otherwise bills remain in their respective committees. For further information on specific bills, please visit <http://www.njleg.state.nj.us/>

Number	Description	Introduced	Committee Referred To
A109	Increases membership of F&G Council and clarifies sole authority to regulate freshwater fishing, hunting and trapping	1/27/2016	Agriculture and Natural Resources (withdrawn 5/26/2016)
A122	Provides for no net loss of DEP lands for fishing, hunting and trapping	1/27/2016	Agriculture and Natural Resources
S485		1/12/2016	Environment and Energy
<a href="#">A432</a>	Prohibits use of snares in trapping of wildlife	1/27/2016	Agriculture and Natural Resources
<a href="#">S1309</a>		2/8/2016	Environment and Energy
<a href="#">A723</a>	Provides discounted hunting and trapping license, permit and stamp fees for senior citizens	1/27/2016	Agriculture and Natural Resources
<a href="#">S585</a>		1/12/2016	Environment and Energy
<a href="#">A997</a>	Provides for discounted resident trapping license fees for senior citizens	1/27/2016	Agriculture and Natural Resources
<a href="#">S929</a>		2/4/2016	Environment and Energy
A1157	Authorizes free hunting, fishing and trapping licenses and free admission to State parks and forests for individuals with certain types of military service	1/27/2016	Agriculture and Natural Resources
A1387	Requires voter registration forms be made available when applying for hunting, fishing or trapping license	1/27/2016	Agriculture and Natural Resources (passed Committee 5/19/2016)
<a href="#">A2178</a>	Authorizes State Fish and Game Council to establish number of beaver trapping permits issued annually	1/27/2016	Agriculture and Natural Resources (passed Committee 9/19/2016)
A2460	Establishes certain requirements for trapping of snapping turtles	2/4/2016	Agriculture and Natural Resources (passed Committee 9/19/2016)
A3049	Authorizes free hunting, fishing and trapping licenses and free admission to State parks and forests for individuals with certain types of military service	2/16/2016	Agriculture and Natural Resources
S2126		5/2/2016	Environment and Energy
A3668	Authorizes free hunting, fishing and trapping licenses for volunteer emergency workers and persons with certain types of military service	4/14/2016	Agriculture and Natural Resources
<a href="#">A3737</a>	Clarifies that Fish and Game Council has sole authority to regulate fishing, hunting and trapping	5/19/2016	Agriculture and Natural Resources
<a href="#">S472</a>		1/12/2016	Environment and Energy
S256	Authorizes free hunting, fishing and trapping licenses and free admission to State parks and forests for individuals with certain types of military service	1/12/2016	Environment and Energy
S603	Authorizes free hunting, fishing and trapping for certain retired military personnel	1/12/2016	Environment and Energy
S2129	Authorizes free hunting, fishing and trapping licenses for volunteer emergency workers and persons with certain types of military service	5/2/2016	Environment and Energy
<a href="#">S2750</a>	Bans manufacture, sale, possession, transportation, or use of certain traps	11/10/2016	Environment and Energy
<a href="#">A4407</a>		12/15/2016	Environment and Solid Waste
ACR25	Determines that F&G Council’s proposal to allow use of enclosed foothold traps is inconsistent with plain language and legislative intent of 1984 law banning animal traps of steel-jaw leghold type	1/27/2016	Regulatory Oversight & Reform (passed Committee 10/6/2016) (passed Assembly 10/20/2016) Referred to Sen Environ & Energy
<a href="#">SCR11</a>		1/12/2016	Environment and Energy
<a href="#">ACR79</a>	Proposes constitutional amendment to preserve right of people to fish, hunt, trap and harvest fish and wildlife	1/27/2016	Agriculture and Natural Resources
<a href="#">SCR27</a>	Proposes constitutional amendment to preserve right of people to fish, hunt, trap and harvest fish and wildlife	1/12/2016	Environment and Energy