



Fisher

Martes pennati



The fisher (*Martes pennati*), also known as the fishercat, pekan (French), otchock (Cree), otshilik (Ojibwan), and historically as the wejack (early European settlers), is a member of the weasel family. The variety of names attributed to this animal hints at its wide northern distribution. Other similar and closely related animals include the pine marten and mink. The common name fisher is likely to have derived from early European settlers in their acknowledgment of the animal's superficial resemblance to the European polecat which is sometimes referred to as the fichtet or fitche. In 1794, Samuel Williams described the fisher in his publication, *The Natural and Civil History of Vermont*, as a "fierce and ravenous" animal "of great activity and strength.". He wrote on to say that the fisher could not "be tamed or made to associate with our common cats." Although the latter of these statement may be true, this relatively small, forest dwelling carnivore is often characterized by many as being more savage than is actually deserved. Whereas the fisher has always been valued as a fur resource, it is only in more recent times that its predatory nature has become an appreciated part of Vermont's healthy, functioning ecosystems.

Vermont Wildlife Fact Sheet

Physical Description

Similar to other members of the Mustelid family, the fisher is a short-legged animal with a long slender, muscular body. Male fishers, being approximately 20 percent larger and twice the weight of females, average eight to 12 pounds and are 36 to 48 inches long from tail to nose. Their fully furred, bushy tail is approximately one third of their overall length. Their pointed wedge-like head is adorned with small, rounded ears and sharp black eyes.

Appearing primarily black, the fisher's pelage varies somewhat with the seasons. Beginning in September and continuing through early winter, they grow tri-colored guard hairs, which dominate the dense, black underfur and provide a

water-resistant, insulating coat. Most pronounced in males, these stiff guard hairs give the pelage surrounding the head and shoulder a grizzled, silver sheen. Summer pelage is less dense, and the silver sheen resulting from guard hairs has been worn down to a dull gray-brown. The coat of a female's is generally darker than that of a male's. Individual fisher are commonly observed with irregularly shaped, white patches on their chests and or armpits.

Fishers are equally adapted for life on land and in the trees. Like humans, they walk on the soles of their feet and are nimble. However, their skeletal structure and foot shape affords them great arboreal agility in trees. Each foot has five, semi-retractile claws that remain sharp. In

addition, fishers have the ability to rotate their hind feet 180 degrees, allowing them to descend trees headfirst like a squirrel. Similar to the black bear and raccoon, a fisher's shoulder blade is designed to accommodate specialized muscles, which provide extra strength used for pulling its weight up the trunk of a tree.

Life Cycle

Secure inside a tree cavity den, a litter of kits (one to four) is born every March. Blind, helpless, and sparsely furred, the young are completely dependent on the female, who cares for them with no assistance from the male. Kits are fully furred within 18 days, and their eyes begin opening at 53 days old. At about four

months of age, they are completely weaned, mobile and are taught to kill prey on their own. At five months, when they are nearly full-grown and are effective hunters, the young begin dispersing from their mother's care. Both males and females are capable of reproducing at one year of age. In Vermont, fishers commonly attain the age of ten years.

In as little as one week after giving birth, an adult female will periodically leave her dependent, newborn kits in search of a new mate. This breeding behavior usually occurs from late March through April. One female will likely find many suitors. After mating, the fertilized egg remains in limbo through a process known as delayed implantation. During this process, all development of the embryo ceases for approximately ten to 11 months. After this time, the fertilized egg is implanted into the uterus wall and development of the embryo begins. Post implantation gestation is approximately 30 to 60 days while pre implantation averages about 352 days. Females, therefore, spend the vast majority of their life in some stage of pregnancy.

Food Items

Contrary to its name, the fisher does not typically eat fish. Its feeding behavior is best described as opportunistic; it feeds on whatever is seasonally abundant and readily available. Primarily carnivorous, it will eat a variety of small to medium sized mammals, including mice,

moles, voles, shrews, squirrels, muskrats, woodchucks, snowshoe hares, and occasionally even fawns. The fisher has also been known to consume a variety of birds reptiles, amphibians, and insects. Apples, cherries, raspberries, beechnuts, and acorns are also significant.

The fisher's appetite for porcupine is unique. There is much speculation as to how a fisher accomplishes this prickly meal, but as evidence suggests porcupines are most certainly a routine part of one's diet. A fisher likely crowds the porcupine to the outer limits of a tree's branches, forcing it to fall. The dazed and probably injured porcupine is then more susceptible to an attack on the ground. Repetitive attacks to the unquilled face also help. Either way, this is proof of the fisher's amazing agility aloft in the trees or on the ground.

The fisher is active both day and night, with heightened activity occurring in the early morning and late evening. It will travel long distances during short periods in search of food. One radio-collared male, for example, traveled over 60 miles in a three-day period. While wandering, a fisher will periodically stop to investigate possible food sources such as porcupine dens. In areas where prey is more abundant and predictable, such as in dense coniferous forest, it often zigzags back and forth, thereby flushing possible prey from its hiding cover. While hunting, its body temperature falls forcing it to seek the warmth of shelter afterwards. Temporary dens are

most often found under logs, root wads, brush piles, and in the cavities of hollow trees or beneath the snow.

While the fisher will eat domestic cats, the occurrence of cat in their diet is relatively low. One study conducted in north-central Massachusetts examined 169 scats and 57 gastrointestinal tracts of fishers in attempt to determine their seasonal food habits. Even though domestic cats were common in the semi rural study area, cat remains were identified in only two percent of the samples collected. Although the threat of a fisher attack is low, concerned cat owners can reduce the chance of an attack by limiting their cat's outdoor activities. Cats are most susceptible to fisher predation during the late evening and early dawn hours of spring and fall when fishers are most active. Outdoor cats are also potential prey for a variety of animals including coyote, fox, bobcat, and great-horned owl, but are also susceptible to disease, cars, and parasites. The average life expectancy of an outdoor cat is two to five years while an indoor cat may survive 17 years or more. Cat owners must understand that when their pets roam at large, they pose a significant threat to native wildlife. It has been estimated that domestic cats kill hundreds of millions of birds each year.

Habits & Habitat

Fisher primarily reside in coniferous or mixed hardwood forests and particularly prefer uneven-aged forest containing snags

and multiple fallen trees. These areas provide ample denning opportunities, and importantly, offer higher concentrations and varieties of prey. Although food availability is recognized as the dominant attribute of fisher habitat, the use of an area is also believed to be dictated by the presence of large tracts of continuous overhead cover. Due to its northern distribution, the fisher's mobility is often restricted by deep fluffy snow. Forest canopies, which provide thick overhead cover, reduce accumulated snow depths, thus increasing mobility and improving foraging effectiveness.

Except during the breeding season, fishers are solitary. Females will defend their home ranges from other females, but will allow male territories to overlap with their own. The home range size of an adult female varies from three to eight square miles. Similarly, males also defend their home ranges from other males but not from females. Adult male home range size varies from six to 15 square miles. While females typically stay within their home range throughout their life, all territorial behaviors break down for males while they roam in search of mates.

Abundance

Today, fishers are common throughout Vermont and are found in virtually every town. Trapping is permitted during a heavily-regulated season each year, and the health

of the population is monitored annually by information collected from trapper mail surveys and by physical examination of the age and sex structure of fishers.

History

Although fishers were once common in Vermont's forests, they were considered extremely rare throughout the state by the early to mid 1900s. Long trapping seasons, coupled with the widespread loss of forests to excessive logging and agriculture, reduced the fisher population in Vermont to alarmingly low numbers and restricted their occurrence to small, remote pockets of habitat. As a result, the Vermont legislature closed the fisher trapping season in 1929. This season closure, combined with reforestation resulting from farm abandonment during the early 1900s, set the stage for the population recovery.

In the 1950s, an incentive to control porcupine populations elevated the importance of fisher population recovery. The porcupine population, which flourished in the fisher's absence, was damaging the regenerating forests due to their bark eating habits. By this time, the state had already spent approximately \$162,000 on porcupine bounties with little to no effect on the overall population. In 1958, the Pest Control Division of the Department of Forests and

Parks proposed to "*reestablish fisher to a normal level and thereby restore a balance which, since broken, has permitted abnormal development of porcupine populations.*" Acting on this proposal in cooperation with the Vermont Fish and Wildlife Department and the United States Fish and Wildlife Service, 124 fishers were live trapped in Maine and subsequently released into 37 Vermont towns between the years of 1959 and 1967. By 1974, the reintroduction was deemed a success.

Resource Utilization

In Vermont, the fisher is recognized as a renewable resource and is trapped for its valuable pelt. This species also plays an important role in maintaining the balance within our natural environment through regulating prey populations.

Management Efforts

The Vermont Fish and Wildlife Department strives to conserve the fisher in order to maintain ecosystem integrity while providing diverse opportunities to ethically view, harvest, and utilize this unique furbearer. Within the last 200 years, however, their distribution has varied dramatically as a result of human influence. The landscape scale removal of forests, European settlement, and unregulated trapping characteristic of the

1800s, severely reduced or eliminated fisher populations from much of their southern range including Vermont. After successful reintroduction efforts, they are now once again, present in our state.

Illustration by John James Audubon – “The Quadrupeds of North America”

Photo: By Summers Scholl (2001)
Wyoming Natural Diversity Database
For non-profit use only; please use full citation.