

Comparison Chart – Long-tailed Weasel, Mink, and Fisher

FAMILY: Mustelidae	Long-tailed Weasel Subfamily: Mustelinae <i>Neogale (was Mustela) frenata</i>	American Mink Subfamily: Mustelinae <i>Neogale (was Neovison) vison</i>	Fisher Subfamily: Guloninae <i>Pekania pennanti</i>
Length, total Length, head+body Length, tail tail, relative to body Weight	300-350 mm ⁶ (11 – 22") 20-40 cm (7 ³ / ₈ – 15 ³ / ₈ "1; 9 – 10"2) 8-16 cm (3 ¹ / ₈ – 6 ³ / ₈ "") 50 – 100% 85 – 267 g ♂ 2x size of ♀ \bar{x} = ♀ 111g; ♂ 195g; juv ♂ 162 g	49-56 cm (19 ³ / ₈ – 22") 33-56 cm (13 ³ / ₈ – 14 ³ / ₈ "1; 14 – 22"2) 16-19 (6 ¹ / ₄ – 7 ⁵ / ₈ ") 33% ⁵ 500 – 1,500 g ⁵ ♂ much heavier, and somewhat longer ⁵ , than ♀ Western minks are >50% larger than their eastern counterparts ⁵	♂ 90-120 cm, ♀ 75-95 cm ⁴ (♂ 35-47", ♀ 29-37") -- ~40-50% ♂ 3.5-5.5 kg, ♀ 2.0-2.5 kg ♂ much larger than ♀ ♀ full length at 7 mo, ♂ @ 10 mo
Physical Description	Brown above, white to deep yellow below. Brown tail with black tip. Feet brown-ish. Tail often equal to head+body length. Turns white in winter w/black tail tip in northern part of range. May have light spot/s on chest developing at 35 days. SW US and FL may have white or yellow facial markings.	Lustrous chocolate brown to black fur, white patch on chin and perhaps spotting on throat, chest, & abdomen. Occasionally found with albino or blond color. Tail is darker than the body, and with longer fur (note: no white underparts) No winter color change to white. The neck is strong, and as large or larger than the head ⁵ Semi-aquatic; incompletely adapted to aquatic life. ⁵	Dark-brown body with black legs and tail; heads have a gold or silver, hoary appearance created by tri-color guard hairs. Many fishers have white or cream patches on their chests or groin, but never so large as to resemble a chin or throat patch. ⁵ Much larger than mink or marten.
Breeding	Mates mid-summer <i>with delayed implantation</i> ; young are born the following spring after 23-24 day active gestation. ♂ mature during 2 nd summer; ♀ at 3-4 months.	Mates January – April, <i>with a delayed (8-45d) implantation, and 30-32d active gestation</i> . Mink are not monogamous, and littermates may have different fathers. ♂ mature @ 18 mo; ♀ at 1 year	Both sexes reach sexual maturity at 1 yr, but effective breeding, esp ♂, may not occur until 2 years. Breeding takes place in the spring, 7-10 days after kits are born. <i>Delayed implantation, active gestation averaging 50 days</i> .
Litter, size & description	Litter size \bar{x} =6-7 but wide range (<4 to >9). Born blind and nearly naked in late spring, but quickly covered with fine white fur.	Litter of 1 – 10 (\bar{x} =3-5) born blind and covered with fine white fur in fur-lined nest from April-June. A male may eventually live with one female and help with the young.	Parturition occurs from late Feb through early May, with most kits born March to early April. Litter sizes range from 1-6, averaging 2-3 ⁴

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Weight at birth	~3 g	6, or 8-10 g	< 50 g
Hair appears	Born with a few sparse long white hairs on back and head. >1 day covered with fine white hair. ⁴	Fine, silver-white hair within first day.	Partially covered with fine hair at birth
Begins to crawl	14 days (♂), 14-21 days (♀)	3 weeks	Crawls >3 weeks, walks >8wks. Climbs well by 3 mo. ⁴
Juvenile fur appears	28-35 days @ 3 weeks dark line of demarcation and tail tip is black. @ 5 weeks brown top and bottom light (white – yellow/tan)	Brown by 2-3 weeks; water-proofing present >8 weeks	By 2 weeks of age covered with light, silver-grey fur; ~3-4 weeks they begin to change to chocolate-brown color. Completely dark brown by 10-12 weeks, and the tri-colored guard hairs begin to appear (giving a hoary appearance).
Ears open Often concurrent with eyes opening	21-28 days ⁶ , 35 days ⁵	25-35 days Quiets down after ears open :-)	--
Eyes open	35-37 days ⁶ , 5 wks ⁵	25-35 days	6-8 weeks, $\bar{x} = 7^4$
Black tail tip appears	21 days ⁶	N/A	N/A
Weaning Continues limited nursing until dispersal	Consumes meat at 21 days and by 36 days eating half to nearly their own weight in meat/day. ⁶ At 7-8 weeks the ♂ are already larger than their mother.	35-45 days, after eyes and ears open and concurrent with increased mobility. Weaning is gradual. Young remain with their mother until the family disperses in early fall.	Completely dependent upon milk for the first 8-10 weeks; begin eating meat at 62 days, by 83 days eating meat regularly. Weaning begins at about 4 months ⁴
First kills prey	> 7 weeks ⁵	> 56 days; begins hunting at 8 weeks	After 4 months ⁴
Growth complete	♀ slows growth ≥ 8 wks.; both sexes at adult size ≥ 12 wks. Consuming 28-38% BW/day	1 year? Weights vary with sex and season. Max heaviness occurs in autumn. Domestic mink are much larger (4-6+ lbs) than wild.	By late summer or early fall females approach full size; males are full size after one year. ⁵
Kills prey by =====> Killing move is instinctive but efficiency improves with training/experience.	Grabs prey by the nape then bites through the base of the skull and/or throat area, often wrapping body and legs around the prey. Eats the entire animal (fur, skin, GI system and organs, bones, etc.).	Biting back of the neck. Eats the entire animal (fur, skin, GI system and organs, bones, etc.). Marks hunting territory with fetid musk stronger than skunk spray but short-lived.	Biting back of the neck; may weaken the prey by numerous slashing bites. Eats the entire animal (fur, skin, GI system and organs, bones, etc.).

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Activity Killing technique is instinctive but hunting is a learned behavior.	Most wide-spread carnivore in the Western Hemisphere. Active both day and night. Hunts mainly on the ground but will also climb trees and go into nests.	Able to dive to depth > 16 feet, the mink is an accomplished swimmer and spends much time hunting along ponds and streams. Adapts activity to prey. Also climbs well.	Active year round with a demanding metabolism, and stores very little energy as fat. Often rests in a tree.
Vocalization	Screech and squeal; rapid trill when excited; murmur and purr when content.	If angered or alarmed (or trapped) may hiss, snarl, and/or scream, and discharge its anal glands. Murmurs and hums when excited	Screams if angered or alarmed.
Habitat The home range of the male is generally larger than the range of the female; larger ranges in wooded environment vs open. All require fresh water within their home range.	Varies: forested, brushy, and open including farm land, preferably near water. Dens in abandoned burrows, making a nest lined with hair from prey. Will climb trees when chasing prey. - Solitary except males <i>may</i> assist with providing food for young (probably in exchange for breeding rights). - 2-5 favorite denning sites and 3-10 daytime resting places. - Home range 2.5-12 acres in open grassland; ♂: 17-37 acres in woods and ♀: 2.5-10 acres in woods ² - Presence of water primary factor x̄ distance from den: 100yds, max distance from den: 220 yds	Males have large home ranges that extend for a half mile or more along waterways and overlap with the smaller home ranges of several females. Mink dens typically consist of long burrows along river banks, creeks, lakes, ponds, and marshes; holes under logs, tree stumps, or roots; and hollow trees. Dens in openings in stream banks, 4" wide, usually appropriated from muskrats; also beaver lodges, hollow log, or digs own. It may continue along for 10–12 feet and at a depth of 2–3 feet Moves often. In good habitat, density may be 9-22 per sq. mile	Habitat is complex forest with dense canopy. While an excellent climber, fisher hunt mainly around the base of trees, and rely on the subnivean layer in winter for hunting and rest. Fisher are strong swimmers, but avoid swimming unless necessary to travel where it wants to go. -Mean home range 38 km ² (14. 7 mi ² , or 9,400 acres) for male fishers and 15 km ² (5.8 mi ² , or 3,700 acres) for females ⁵
Prey Larger individuals take the larger prey.	Mice and voles are preferred prey but diet may also include young rabbits, shrews, chipmunks, rats, birds & poultry, and an occasional insect or worm.	Opportunistic. Muskrat, rats, and fish are preferred prey but will also take other rodents, young rabbits, birds & eggs, crustaceans, amphibians, and young snapping turtles	Primarily rodents, lagomorphs, venison and birds, and sometimes insects, fruit, and carrion. Preference is for snowshoe hare and porcupine, and scavenging dead white-tailed deer, or equivalents in areas where these are not present.

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Predators	Hawks, owls, cats, foxes. Humans (trappers and cars).	Foxes, bobcats, lynx, alligators, and great horned owls. Humans (trappers and cars).	Humans (hunters, trappers, logging, and car collision). Reintroduced fisher often preyed upon by larger carnivores (cougar, wolverine, bobcat) ⁵
Misc Notes	<ul style="list-style-type: none"> - Color change seems to be triggered by length of daylight but is also genetic. A northern weasel captured and taken south turned white during winter while a southern weasel taken north stayed brown. - May release powerful malodorous musk when alarmed, enraged, or excited by mating urge. - Immobilization using IM injection (25G x 16mm needle) of ketamine HCl (25 mg/kg) + xylazine HCl (2 mg/kg), as recommended for ferrets. - ear tags used for tracking study were size 1 Monel tag, National Band and Tag Company, Newport, KY - Winter white weasel of either sex is sexually inactive. - distance traveled (σ): 3-4 mi, \bar{x}=2mi Tracking studies of 11 σ and 10 ♀: σ, \bar{x} = 704 ft (60-2535 ft) ♀, \bar{x} = 346 ft (20-1420 ft) - those in open timber traveled much greater distances than those in brushland and dense stands of trees. 	<ul style="list-style-type: none"> - Mink require water depth >1.2', allowing them swimming room. - They are highly susceptible to methylmercury toxicity (increasing acidity increases methylation of Hg). - Can swim >3 hr. in warmer water but may die in <30 min in cold water. - Farmed mink are much larger, come in a variety of colors, and the fur is short and very dense (like plush velvet). - European mink are much smaller (1-1½ lbs, 12"-15") and more closely related to the polecat than the American Mink - Vocalizations of kits are suggested to play a role in the maternal care and kit survival. Kits begin to vocalize immediately after birth. When a young mink kit is isolated from its mother it starts vocalizing loudly and almost continuously. Vocalizing decreased dramatically from 100% for newborns to only 15 % as eyes opened. >6.5 wks., none of the kits being studied produced any sound, when isolated from the mothers. 	<ul style="list-style-type: none"> - Low incidence of disease and low levels of parasitism. Lifespan up to 10 years, but rarely more than 7 in the wild.⁵ - Active pregnancy is ~50 days - Males are polygynous and females may be both polyandrous and selective⁵ - The kits are weaned at about 4 months, and separate soon after, but may remain in their natal territory until the following spring. In captivity, intraspecific aggression appears in fisher kits when they are about 3 months old, and are intolerant of each other by 5½ months (they must be released, or separated, at this point).⁵ In captivity or care this may be alleviated by a large cage space. - Flexible ankle joints allow them to rotate hind paws nearly 180 deg and to grasp branches exceptionally well with hind feet, allowing both head first descent and hanging by hind paws. Able to easily chase prey both up and down a tree⁵

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Cited references:

¹*National Audubon Society Field Guide to Mammals*, 1996 rev;

²*Mustelid (Mustelidae) Care Manual*, Association of Zoos and Aquariums, July 2008, revised January 2010;

³*American Weasels*, E. Raymond Hall, August 2015 (written over a period of 25 yrs.);

⁴*The Fisher. Life History, Ecology, and Behavior*, Roger A. Powell, 1st edition (1982) and 2nd edition (1993)

⁵*Wild Mammals of North America*, edited by George A. Feldhamer, Bruce C. Thompson, Joseph A. Chapman, 2nd edition, 2003

⁶"The Least Weasel *Mustela nivalis* Linnaeus, Developmental Biology in Comparison with Other North American *Mustela*," Biological Series Volume 4, Number 7, Publications of the Museum, Michigan State University, Gary A Heidt, April 1970

Additional Resources:

Professional Standards

- AVMA Guidelines for Euthanasia of Animals
- NWRA Wildlife Formulary
- NWRA/IWRC Standards for Wildlife Rehabilitation
- NWRA Principals of Wildlife Rehabilitation
- NWRA Wildlife Rehabilitators Code of Ethics (https://www.nwrwildlife.org/page/Code_of_Ethics_Rehab)
- GFAS Standards For Caniform Sanctuaries, 2019 or most recent version. <https://sanctuaryfederation.org/wp-content/uploads/2020/02/Caniform-Standards-2019.pdf>
- One Health Initiative, <https://onehealthinitiative.com/>
- AZA Mustelid (Mustelidae) Care Manual
- Carpenters Exotic Animal Formulary

Academic texts and supplemental reading:

- *The Natural History of Weasels and Stoats*, Carolyn M. King and Roger A. Powell, 2nd edition, 2007
- *The Fisher. Life History, Ecology, and Behavior*, Roger A. Powell, 1st edition (1982) and 2nd edition (1993)
- *Martens and Fishers (Martes) in Human-Altered Environments*, edited by Daniel J. Harrison, Angela K. Fuller, and Gilbert Proulx, 2004
- *Wild Mammals of North America*, edited by George A. Feldhamer, Bruce C. Thompson, Joseph A. Chapman, 2nd edition, 2003
- *Walker's Mammals of the World*, Volume 1. Donald M. Nowak, 6th edition, 1999
- *Winter World*, Bernd Heinrich, 2003 – and really, anything by Bernd Heinrich is worth reading
- *Winter of the Fisher*, 1971, Cameron Langford
- *The Lone Wolverine: Tracking Michigan's Most Elusive Animal*, 2012, by Elizabeth Philips Shaw and Jeff Ford
- *The Wolverine Way*, by Douglas H. Chadwick, published by Patagonia Books