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<u>University of Michigan Museum of Zoology</u>

# Mustela putorius furo domestic ferret

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# **Geographic Range**

Currently almost no progress has been made in determining the center of the domestication of ferrets. It is thought that ferrets may have been domesticated from native European polecats (*Mustela putorius*). There is evidence of domestic ferrets in Europe over 2500 years ago. Currently domestic ferrets are found around the world in homes as pets. In Europe, people sometimes use ferrets for hunting, which is known as ferreting. (Davidson 1999, Schilling 2000)

**Biogeographic Regions:** nearctic (introduced); palearctic (native); oriental (introduced); ethiopian (introduced); neotropical (introduced); australian (introduced)

#### **Habitat**

The native habitat of domestic ferrets were forested and semiforested habitats near water sources. Domestic ferrets are kept as pets or as working animals in human habitations.

#### Classification

Kingdom Animalia animals

Phylum

Other Habitat Features: urban; suburban; agricultural

## **Physical Description**

Domestic ferrets reach their adult size at one year old. A typical female domestic ferret weighs from 0.3 to 1.1 kg. Domestic ferrets exhibit sexual dimorphism. Male domestic ferrets can weigh from 0.9 to 2.7 kg, neutered males often weigh less than unaltered males. Domestic ferrets have a long and slender body. Females are typically 33 to 35.5 cm long and males are 38 to 40.6 cm long. Average tail length is 7.6 to 10 cm. Domestic ferrets have large canine teeth and 34 teeth total. Each paw has a set of five, non-retractable claws.

Domestic ferrets have been bred for a large variety of fur colors and patterns. The seven common fur colors are called: sable, silver, black sable, albino, dark-eyed white, cinnamon, and chocolate. The most common of these colors is sable. Examples of pattern types are: Siamese or pointed patterned, panda, Shetlands, badgers, and blazes.

Aside from selection towards particular fur colors, domestic ferrets closely resemble their wild ancestors, European polecats (*Mustela putorius*).

(Schilling 2000)

**Other Physical Features:** endothermic; homoiothermic; bilateral symmetry

Sexual Dimorphism: male larger

**Range mass** 0.3 to 2.7 kg 0.66 to 5.95 lb

**Range length** 33.0 to 40.6 cm 12.99 to 15.98 in

# Reproduction

Male domestic ferrets will mate with as many females as they have access to.

Mating System: polygynous

Male ferrets have a hooked penis. After penetration of the female, they can't be separated until the male releases. Males will also bite the back of the female's neck while mating. Domestic

Chordata chordates

Subphylum Vertebrata vertebrates

Class Mammalia mammals

Order
Carnivora
carnivores

Family Mustelidae badgers, otters, weasels, and relatives

Genus

Mustela
ermines, ferrets,
minks, and
weasels

Species

Mustela putorius

European polecat

Subspecies

Mustela putorius
furo

domestic ferret

ferrets have a seasonal polyestrous cycle. Male domestic ferrets go into rut between December and July. Females go into heat between March and August. Males are ready to breed when they develop a discolored, yellowish undercoat. An increase in the oil production of the skin glands is what causes the discolored undercoat.

A female in estrous is identifiable by a swollen pink vulva due to an increase in estrogen. Females can go into lactational estrous on some occasions. Lactational estrus occurs if the litter size is less than 5 kits. Lactational estrus is when the female will go back into estrous while lactating the litter that she just had. Healthy domestic ferrets can have up to three successful litters per year, and up to 15 kits. Gestation length is about 42 days. Young domestic ferrets are altricial at birth, and need about 8 weeks of parental care. Kits are born deaf and have their eyes closed. Newborns typically weigh about 6 to 12 grams. Baby incisors appear about 10 days after birth. The kits eyes and ears open when they are 5 weeks old. Weaning of the kits is done while they are 3-6 weeks old. At 8 weeks, kits have 4 permanent canine teeth and are capable of eating hard food. This is often the time that breeders let the kits go to new owners. Female kits will then reach sexual maturity at 6 months old. (Kaytee 2001, Schilling 2000)

**Key Reproductive Features:** iteroparous; seasonal breeding; gonochoric/gonochoristic/dioecious (sexes separate); sexual; fertilization (internal); viviparous

Breeding season Breeding occurs between March and August.	Range number of offspring 15 (high)	Average gestation period 42 days
Range weaning age 3 to 6 weeks	Average age at sexual or reproductive maturity (female) 6 months	Average age at sexual or reproductive maturity (male) 6 months

Young domestic ferrets are cared for by their mothers until they are about 8 weeks of age.

Parental Investment: altricial; female parental care

# Lifespan/Longevity

Domestic ferrets will not survive long in the wild. As pets, they can live from 6-10 years. There are a few diseases and disorders that can shorten the life of domestic ferrets if not treated. Some of these diseases and disorders include: canine distemper, feline distemper, rabies, parasites, bone marrow suppression, insulinoma, adrenal gland disease, diarrhea, colds, flus, ringworm, heat stroke, urinary stones, and cardiomyopathy. (Kaytee 2001, MNAALAS date unknown, Schilling 2001)

Typical lifespan Status: captivity 6 to 10 years

#### **Behavior**

A healthy domestic ferret will often sleep 18-20 hours per day. Domestic ferrets are naturally crepuscular, having activity periods during dawn and dusk. They will often change this activity period depending on when their owner is around to give them attention. Domestic ferrets are playful and fastidious. They will often interact with other pet ferrets, cats, and dogs in a friendly manner. Domestic ferrets will seek attention. They are naturally inquisitive and will tunnel into or under anything. They can be taught tricks and will respond to discipline. Domestic ferrets have an instinct to habitually urinate and defecate in the same places, and therefore can be trained to use a litter box.

Domestic ferrets use a variety of body language. Some of these behaviors are dancing, wrestling, and stalking. They will 'dance' when they are happy and excited, hopping in every direction. Wrestling is a behavior that includes two or more ferrets. They will roll around with each other, biting and kicking, usually in a playful manner. Stalking is sneaking up on a toy or other animal in a low crouched position. (MNAALAS date unknown, Schilling 2000)

**Key Behaviors:** crepuscular ; motile ; sedentary ; social

# **Communication and Perception**

Domestic ferrets have many forms of verbal communication. They will 'dock' or 'cluck' as sounds of giddiness or excitement. They will 'screech' as a sign of terror, pain, or anger. They will 'bark' if they are very excited. Finally, a domestic ferret will 'hiss' if it is annoyed or very angry at another ferret or animal. (Schilling 2000)

Communication Channels: visual; tactile; acoustic; chemical

Other Communication Modes: scent marks
Perception Channels: tactile; chemical

#### **Food Habits**

Domestic ferrets are natural carnivores, and require a meat-like diet. Food for domestic ferrets should contain taurine and be composed of at least 20% fat and 34% animal protein. Most domestic ferrets are fed manufactured ferret, cat, or dog food. They can also be fed raw meat, but that alone is not sufficient. If they were in the wild, they would get nutrients from eating all parts of an animal, such as the liver, heart, and other organs. Sometimes domestic ferrets are fed supplements (like vitamins) to make up for nutritional requirements that commercial foods don't meet.

The metabolism of a domestic ferret is very high and food will travel through the digestive tract in 3-5 hours. Therefore, a domestic ferret will need to eat about 10 times each day. Domestic ferrets also have olfactory imprinting. What ever is fed to them for the first 6 months of their life is what they will recognize as food in the future. (Schilling 2000)

Primary Diet: carnivore (eats terrestrial vertebrates)

#### **Predation**

Domestic ferrets don't have any natural predators since they are domesticated. Predators such as hawks, owls, or larger carnivorous mammals would hunt them given the opportunity. Domestic ferrets on the other hand can be predators to certain animals. They have been known to kill pet birds. Domestic ferrets will also hunt rabbits and other small game when their owners use them for ferreting. There is also record of ferrets being used to control rodent populations on ships during the American revolutionary war. (Schilling 2000)

# **Ecosystem Roles**

Because domestic ferrets do not inhabit natural ecosystems, they have no ecosystem roles.

## **Economic Importance for Humans: Positive**

Domestic ferrets are popular pets. There are ferret breeders and ferret farms that raise ferrets for the pet trade, and many pet shops carry ferrets to sell. There are many other products that go along with a pet ferret including ferret food, ferret toys, ferret cages, ferret beds, and other commercial items designed specifically for ferrets. Ferrets have also been used in research. (Schilling, 2000)

Positive Impacts: pet trade; research and education

## **Economic Importance for Humans: Negative**

Domestic ferrets, if not properly vaccinated or cared for, can harbor certain diseases that are transmissible to humans. Domestic ferrets have formed feral populations in some parts of the world and can be a serious pest of native birds and other wildlife.

**Negative Impacts:** injures humans ( carries human disease ); causes or carries domestic animal disease

#### **Conservation Status**

Domestic ferrets are not listed on any conservation lists, because their populations are far from low. On the other hand, domestic ferrets have been used in efforts to build the populations of endangered species such as the black-footed ferret. Scientists have recently successfully completed a non-surgical embryo collection and transfer in domestic ferrets. This means that they took the embryo from one female and transferred it to another female with out using surgical procedures. This procedure resulted in live young with the domestic ferrets. This is significant because it can be modified to be used in black-footed ferrets. (Segelken 1996)

IUCN Red List
No special status

**US Migratory Bird** 

<u>Act</u>

US Federal List
No special status

No special status

**CITES** 

No special status

#### **Other Comments**

Ferrets were likely domesticated from European polecats (*M. putorius furo*) over 2000 years ago. At this time it is likely that captive and wild ferrets/polecats continued to interbreed. Learn more about the wild relatives of domestic ferrets in our ADW account for *Mustela putorius* at: <a href="http://animaldiversity.ummz.umich.edu/accounts/mustela/m.putorius\$narrative.">http://animaldiversity.ummz.umich.edu/accounts/mustela/m.putorius\$narrative.</a>

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