

= Fancy rat =

The fancy rat is a domesticated brown rat (*Rattus norvegicus*), which is the most common type of pet rat . The name fancy rat derives from the idea of animal fancy (promotion of domesticated animals) or the phrase " to fancy " (to like , or appreciate) .

Fancy rats have their origins as the targets for blood sport in 18th- and 19th @-@ century Europe . Specially bred as pets since then , fancy rats now come in a wide variety of colors and coat types and are bred and raised by several rat enthusiast groups around the world . Fancy rats are commonly sold as pets in stores and by breeders .

Domesticated rats are physiologically and psychologically different from their wild relatives , and ? when acquired from reputable breeders and shops ? pose no more of a health risk than other common pets . For example , domesticated brown rats are not considered a disease threat , while exposure to wild rat populations could introduce pathogens like *Salmonella* into the home . Fancy rats experience different health risks from their wild counterparts , and thus are less likely to succumb to many of the same illnesses as wild rats .

Fancy rats care for themselves , and are thus very affordable compared to even other small pets . This is one of the biggest draws to them . Additionally , fancy rats are quite independent , loyal and easily trained , earning them comparison to both cats and dogs . This comparison is merited given fancy rats are considered more intelligent than any other domesticated rodent .

= = History = =

The origin of the modern fancy rat begins with the rat @-@ catchers of the 18th and 19th centuries who trapped rats throughout Europe . These rat @-@ catchers would then either kill the rats , or , more likely , sell the rats to be used in blood sport . Rat @-@ baiting was a popular sport until the beginning of the 20th century . It involved filling a pit with several rats and then placing bets on how long it would take a terrier to kill them all . It is believed that both rat @-@ catchers and sportsmen began to keep certain , odd @-@ colored rats during the height of the sport , eventually breeding them and then selling them as pets . The two men thought to have formed the basis of rat fancy are Jack Black , rat @-@ catcher to Queen Victoria , and Jimmy Shaw , manager of one of the largest sporting public houses in London . These two men are responsible for beginning many of the color varieties present today . Black , specifically , was known for taming the " prettier " rats of unusual color , decorating them with ribbons , and selling them as pets .

Rat fancy as a formal , organized hobby began when a woman named Mary Douglas asked for permission to bring her pet rats to an exhibition of the National Mouse Club at the Aylesbury Town Show in England on October 24 , 1901 . Her black @-@ and @-@ white hooded rat won " Best in Show " and ignited interest in the area . After Douglas ' death in 1921 , rat fancy soon began to fall back out of fashion . The original hobby formally lasted from 1912 to 1929 or 1931 , as part of the National Mouse and Rat Club , at which point Rat was dropped from the name , returning it to the original National Mouse Club . The hobby was revived in 1976 with the formation of the English National Fancy Rat Society (NFRS) . Pet rats are now commonly available in stores and from breeders , and there exist several rat fancier groups worldwide .

= = Differences from wild rats = =

While domesticated rats are not removed enough from their wild counterparts to justify a distinct subspecies (compare *Canis lupus familiaris*) , there are significant differences that set them apart ; the most apparent is coloring . Random color mutations may occur in the wild , but these are rare . Most wild *R. norvegicus* are a dark brown color , while fancy rats may be anything from white to cinnamon to blue .

Behaviorally , domesticated pet rats are tamer than those in the wild . They are more comfortable around humans and known to seek out their owners while roaming freely . They have decreased reactions to light and sound , have less cautions to new food , and have better tolerance to

overcrowding . Domesticated rats are shown to mate earlier , more readily , and for a longer period of time over their lifespan . Also , domesticated rats exhibit different behaviors when fighting with each other ; while wild rats almost always flee a lost battle , caged rats spend protracted amounts of time in a belly @-@ up or boxing position . These behavioral traits are thought to be products of environment as opposed to genetics . However , it is also theorized that there are certain underlying biological reasons for why some members of a wild species are more receptive to domestication than others , and that these differences are then passed down to offspring (compare Domesticated silver fox) .

The body structure of domesticated rats differs from that of a wild rat as well . The body of a fancy rat is smaller , with larger ears and a longer tail than that of its undomesticated counterpart . They are generally smaller with sharper facial features as well .

Domesticated rats have a longer lifespan than that of wild rats . Because domesticated rats are protected from predators and have ready access to food , water , shelter , and medical care , their average lifespan is around two to three years , in contrast to wild *R. norvegicus* which average a lifespan of less than one year . However , wild rats generally have larger brains , hearts , livers , kidneys , and adrenal glands than laboratory rats . The fancy rat and wild rat also both face a multitude of differing health concerns ; the former is at risk of developing a pneumococcal infection from exposure to humans , while the latter may harbor tapeworms after coming in contact with carriers like cockroaches and fleas .

= = Social behavior = =

Generally speaking , rats are quite sociable and function best with at least one cage mate . It is generally ill @-@ advised to keep a singular rat unless there are severe behavioral problems , such as those that can be seen in some older males . The earlier rats are introduced to one another , the better and oftentimes , rat breeders will encourage new owners to take two or more rats of the same gender from the same litter for starters .

Particularly with males , there can be some fighting in the beginning , but once an alpha rat has been determined , the rats should get along well . Within two weeks to a month , the rats will most likely have adjusted and become friendlier with each other . Rats are generally very friendly to other cage mates , particularly with females . They will even sometimes help or take care of other sick rats .

Generally when two or more rats from the same litter are of the same sex they live together with no disruptions but with the occasional friendly tussle and play fight . Although it is possible that rats from different litters can be integrated together , the integration process can be easy or hard . Several measures have to be taken to provide security for both rats . Techniques for integration include bringing them to neutral ground so they do not become territorial . The process of integrating is easiest with two rats of young age , generally less than six months old . The process of integrating is most difficult with two or more adult male rats , as adult males are the least likely to accept new cage mates , especially after an alpha has been established . Unless there is an issue integrating rats together , owners should always keep them in a group of at least three , as rats live in packs and a pack starts with three animals .

= = Varieties = =

As in other pet species , a variety of colors , coat types , and other features that do not appear in the wild have either been developed , or have appeared spontaneously . Any individual rat may be defined one or more ways by its color , coat , marking , and non @-@ standard body type . This allows for very specific classifications such as a ruby @-@ eyed cinnamon Berkshire rex Dumbo .

= = = Coloring = = =

While some pet rats retain the agouti coloring of the wild brown rat (three tones on the same hair) ,

others have solid colors (a single color on each hair) , a trait derived from the black rat . Agouti @-@ based colors include agouti , cinnamon , and fawn . Black @-@ based colors include black , beige , and chocolate .

Eye color is considered a subset of coloring , and coat color definitions often include standards for the eyes , as many genes which control eye color will also affect the coat color or vice versa . The American Fancy Rat and Mouse Association (AFRMA) lists black , pink , ruby , and odd @-@ eyed (two different @-@ colored eyes) as possible eye colors , depending on the variety of rat shown . Ruby refers to eyes which at a glance appear black but which are on closer observation a deep , dark red .

Color names can vary for more vaguely defined varieties , like lilac and fawn , while the interpretations of standards can fluctuate between (and even within) different countries or clubs .

== Markings ==

Further dividing the varieties of fancy rats are the many different markings . Pet rats can appear in any combination of colors and markings . The markings are typically in reference to the patterns and ratios of colored hair versus white hair . Two extremes would be a self (completely solid , non @-@ white color) and a Himalayan (completely white except blending into colored areas at the nose and feet , called points , as in a Himalayan cat 's markings) .

Markings have a strict standard , with detailed terminology , for showing in fancy rat pet shows . However , many domestic rats are not closely bred to any color standard ; many of those found in pet shops will have mismarkings from a formal breeding perspective , which are defined as variations in markings that are not recognized as conforming to a breed standard published by a rat fancier organisation .

Commonly recognized standards include :

Berkshire ? colored top , white belly

Hooded ? color runs in a saddle , a single , unbroken line from full head down the spine and possibly partly down the tail

Capped ? color on full head only

Blazed - Colored head (Capped) or body (Irish , Berkshire or self) , with a triangular wedge of white fur over the face .

Variegated ? Any form of mismatched , oddities in fur . Can be anything from broken or spotted hood or a misshaped blaze .

Irish or English Irish ? In England , the Irish is standardized by the NFRS as an equilateral triangle of white with a side that begins at the chest , or between the front legs , and where the point ends mid length . In the United States and elsewhere , clubs like the AFRMA distinguish this marking as the English Irish and allow for another standardized Irish in which the rat may have white of an even or symmetrical nature anywhere along its underside .

Other marking varieties include spotted or Dalmatian (named for the spotted Dalmatian dog) , essex , masked , and Siamese (typically a gradient of color along the body , darkest at the base of the tail and nose as in Siamese cats) , and downunder or downunders (an Australian variety which has a solid color stripe on the belly or a color marking there that corresponds to markings on top) .

== Body type ==

Two of the most prominent and standardized physical changes applied to rats through selective breeding are the development of the Manx and Dumbo . The Dumbo , whose origins are in the United States , is characterized by having large , low , round ears on the sides of its head , and was named for resemblance to the fictional Dumbo the Elephant . The Manx rat is tailless due to a genetic mutation , and was named for the Manx cat , which shares this feature , though not necessarily due to the same mutation .

== Coat types ==

There is a relatively small variety of coats in relation to the number of colors and markings , and not all are internationally standardized . The most common type is the normal or standard , which is allowed variance in coarseness between the sexes ; males have a coarse , thick , rough coat , while females ' coats are softer and finer . Other standardized coats include : rex , in which all the hairs are curly , even the whiskers ; velveteen , a softer variation of the rex ; satin or silky coat , which is extra @-@ soft and fine , with a sheen ; and Harley , characterized by wispy long straight hairs . Remaining coat types are not defined by the hair itself , but rather by the lack of it , such as hairless rats .

=== Hairless rats ===

Hairless rats are a coat variety characterized by varying levels of hair loss . Hairless rats , bred from curly @-@ coated rexes , range from having areas of very short fur to being completely bare . Hairless rats are genetically produced by breeding different combinations of the genes that cause Rex coats . Since rex is a dominant trait , there only needs to be one rex parent to produce curly rex @-@ coated offspring . However , when two copies of the trait are present , by breeding two rexes together , the coat is affected differently ? causing hairlessness , and earning the colloquial name , " double @-@ rex " . One subset of semi @-@ hairless rats , Patchwork rats , constantly lose hair and regrow it in different " patches " several times throughout their life .

=== Ethics of selective breeding ===

There is controversy among rat fanciers in regard to selective breeding . On one hand , breeding rats to " conform " to a specific standard or to develop a new one is a large part of what the fancy was founded on . On the other hand , the process results in many rats who do not " conform " , and are then either given away , sold as food , or killed ? referred to as culling .

There are concerns as to whether breeding hairless and tailless rats is ethical . The tail is vital for rats ' balance and for adjusting body temperature . Tailless rats have greater risk of heat exhaustion , poor bowel and bladder control , falling from heights , and can be at risk for life @-@ threatening deformities in the pelvic region like hind leg paralysis and megacolon . Similarly , hairless rats are less protected from scratches and the cold without their coat . Groups such as the NFRS prohibit the showing of these varieties at their events and forbid advertisement through affiliated services .

=== Availability ===

Because *R. norvegicus* and related species are seen as pests , their intentional import into foreign countries is often regulated . For example , the importation of foreign rodents is prohibited in Australia , and so various coat types , colors , and varieties have been bred separately from foreign lines , or are just not obtainable within that country (for example , hairless and dumbo @-@ eared fancy rats do not exist in Australia) . In other areas , like the Canadian province of Alberta , which is considered rat @-@ free , the ownership of domestic fancy rats outside of schools , laboratories , and zoos is illegal .

=== Health ===

Human @-@ raised *R. norvegicus* are more prone to specific health risks and diseases than their wild counterparts , but they are also far less likely to succumb to certain illnesses that are prevalent in the wild . The major considerations for susceptibility include exposure , living conditions , and diet .

Rats that live their entire lives indoors usually are able to avoid disease @-@ causing bacteria such as *Salmonella* and *Pseudomonas aeruginosa* ; the latter is absent in treated water . They may also more easily avoid vectors like cockroaches , beetles , and fleas which are essential for the spread of

endemic typhus and intestinal parasites like the Rat tapeworm . Additionally , pet or laboratory rats enjoy the intrinsic benefits of having a consistent and well @-@ balanced diet , along with access to medical care .

While living indoors decreases the risk of contracting certain diseases , living in close quarters with other rats , being unable to always seek proper protection from environmental factors (e.g. temperature , humidity) , being fed an unhealthy diet , and the stresses inherently associated with living in an unnatural habitat can all adversely affect a rat 's health to make them more prone to specific conditions . Specifically , Tyzzer 's disease , protozoic infections (e.g. *Giardia muris*) , and pseudotuberculosis are usually seen in stressed or young rats . Additionally , pet rats are exposed to *Streptococcus pneumoniae* , a zoonotic disease caught from humans , not the same bacteria associated with strep throat . A human @-@ associated fungus , *Pneumocystis carinii* (also found in almost all domesticated animals) is usually asymptomatic in the rat , unless the rat 's immune system is compromised by illness . If this occurs the infection can develop into pneumonia .

Several diseases , like Rat Coronavirus Infection (RCI) , Sendai virus , and Murine Respiratory Mycoplasmosis (MRM , *Mycoplasma pulmonis*) , are prevalent simply because their highly contagious natures work in tandem with the way rats are kept in laboratories , pet stores , and by breeders . It should be noted , however , that MRM is far less likely to occur in laboratory rats than in those kept as pets .

Pet rats can also develop pituitary tumors if they are given high @-@ calorie diets , and ringtail if they are placed in areas with low humidity or high temperatures . *Staphylococcus* spp. are a mostly benign group of bacteria that commonly reside on the top of the skin , but cuts and scratches from social and hierarchical fighting can open up the pathways for them to cause ulcerative dermatitis .

There is some evidence that spayed female rats (" does ") are less likely to develop mammary and pituitary tumors than non @-@ spayed females . Research into prevention of common diseases and health issues in rats is on @-@ going . Dietary changes are among the main suggestions for improved health and longevity in fancy rats , such suggestions included are feeding rat @-@ friendly superfoods in moderation to reduce the risk of cancers , heart disease and stroke .

= = = Risks to owners = = =

Keeping rats as pets can come with the stigma that rats supposedly transmit dangerous diseases to their owners . One fear is that all rats carry plague , when in fact *R. norvegicus* is not among the list of species considered a threat . In 2004 , an outbreak of salmonella in the United States was connected to people who owned pet rats . However , it has been determined that a pet rat 's initial exposure to salmonella , along with many other zoonotic rat diseases , typically indicates exposure to wild rodent populations , either from an infestation in the owner 's home , or from the pet 's contaminated food , water , or bedding .

Another risk to rat owners is Rat @-@ bite fever . This is a rare disease among domesticated rats and is most often found in rats from large chain pet stores who breed their stock of rats in masses (usually with the intention of being snake food rather than pets) or from breeders who fail to take good care of their rats . This disease is fairly unnoticeable in the rat , but is characterized by the swelling of the site of the bite or scratch where it was contracted , a fever , vomiting and body aches . It is contracted by being bitten or scratched by an infected rat .

= = Fiction = =

In fiction , pet brown rats are often depicted as tamed rather than domesticated , akin to when a character befriends a wolf . As tamed pets , they have been portrayed in roles that vary from evil to ambiguous to lovable .

Samantha Martin , a professional animal trainer for films , commercials , and music videos , has claimed that rats are one of the easiest animals to train due to their adaptability , intelligence , and focus .

The short novel *Ratman 's Notebooks* by Stephen Gilbert was the basis for the films *Willard* (1971)

and Ben (1972) , and a 2003 remake of the first film . Here , the protagonist befriends the rats found in his home and builds up a close relationship , only to have it end tragically . While these movies generally emphasize the popular perception of malevolence ? they kill people , cats , and ransack grocery stores ? other wild rats who become pets are portrayed in more neutral to positive ways ; the television show , House , briefly featured " Steve McQueen " , the pet rat of the titular character .

In many versions of the Teenage Mutant Ninja Turtles franchise , the master and adoptive father of the turtles is Splinter , who was once the pet rat of ninja Hamato Yoshi and learned his martial arts skills by imitating his owner .

In the 1996 point @-@ and @-@ click adventure game Phantasmagoria : A Puzzle of Flesh , the protagonist Curtis Craig owns a pet rat named Blob , which is seen various times in the game and is even involved in one of the many puzzles that the player must decipher .

= = = Organisations = = =

American Fancy Rat and Mouse Association (USA) (AFRMA)

The National Fancy Rat Society (UK) (NFRS)

Rat and Mouse Club of America (USA) (RMCA)

The Midlands Rat Club (UK) (MRC)

Rat Club (NZ) (RC)