

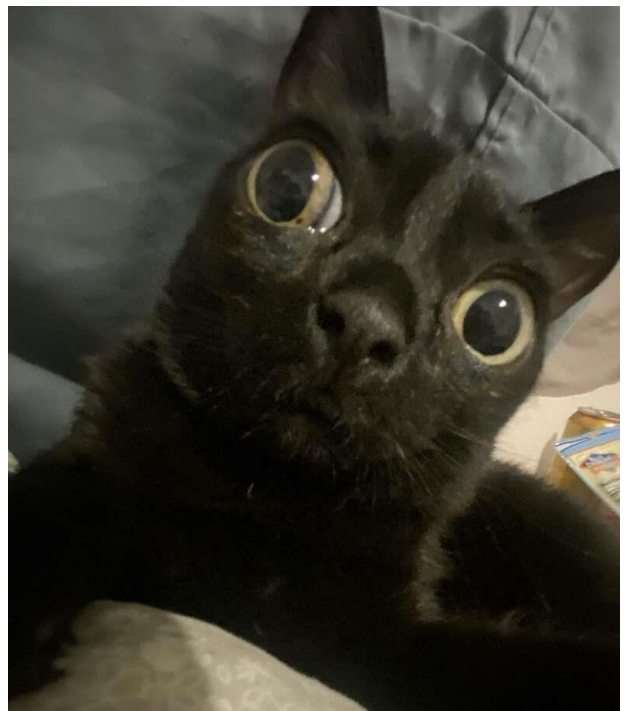


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# Cats

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MORE ABOUT CATS



# Index

Introduction.....	1
The Strangest Studies About Cat.....	6
What if Everything You Think About Cats Is Wrong?.....	8
The Science of Cats.....	8
Thinking of getting a second cat? .....	9
Cats obesity is increasing by the years .....	11
Feral Cats are a global problem.....	12
The Effects of Human-Animal Bonding on Mental Health.....	14
Molecular Techniques.....	16
The Effectiveness of Cat Training Programs on Feline Behavior .....	17
The Genetics and Evolution of Domestic Cats.....	19
The Psychological Benefits of Cat Ownership.....	20
Investigating the Impact of Feral Cats on Wildlife and Ecosystems .....	22
Conclusion.....	23

# Introduction

Cats tend to have a bad reputation. Some people assume they're snobby, unfriendly, completely uninterested in their human owners, and prone to scratching or biting.

But anyone who loves or owns cats knows that this couldn't be further from the truth. While there has been significantly more research done on dogs than cats because they are harder to study, scientists are finally starting to change that.

Here are 9 recent studies that prove cats make great pets and companions.

A 2019 study suggests that cats do bond with their humans as their caregivers.

The study, also conducted by Oregon State University and published in the journal "Current Biology," looked at a total of 70 cats. The cats were put in a room with their owners for two minutes, then left alone for two minutes before the owners returned. 64% of the cats displayed what the researchers classified as "secure attachment" to their owners.

"There's long been a biased way of thinking that all cats behave this way. But the majority of cats use their owner as a source of security," Kristyn Vitale, a lead researcher in the study, told NBC. "Your cat is depending on you to feel secure when they are stressed out."

A lot of people may joke that cats only care about their owners when they want to eat, but a 2017 study suggests otherwise. Researchers from Oregon State University looked at the preferences of cats and their findings suggest cats actually enjoy interacting with humans more than food.

The study, published in the journal "Behavioural Processes," tested both pets and shelter cats (around 55 in total) to see if they would prefer to interact with food, toys, scent, or social interaction with humans like petting or playing.

Social interaction was the activity most preferred by cats across both groups, according to the researchers, followed by food.

A 2009 study published in the "Journal of Vascular and Interventional Neurology" looked at over 4,000 people, about half of whom were either current or former cat owners and half of whom had never owned a cat.

The researchers found that there was a correlation between owning a cat and reduced stress levels. Cat owners had an overall 30% lower risk

of dying from a heart attack or stroke compared to those who did not own a cat and that was even taking into account factors such as smoking, diabetes, heart health, and cholesterol levels.

While correlation does not equal causation, the 2009 study was unsurprising to veterinary experts who posited to Medical News Today it could be because cats like to be petted and require less work than dogs.

A 2019 study, published in "Scientific Reports," looked at 78 cats to see if they could distinguish their names from other similar-sounding words, and found it even happens if a stranger is calling them.

Researchers recorded cat owners saying five different words at cat cafés in Japan. Four were general nouns that sounded similar to the cat's name, and one was the cat's name. In one of the four experiments, they used strangers for the recordings instead of the owners.

They then studied the cats to see how they responded to each word and found a significant difference in the way cats responded to their own names.

If you've ever felt like your cat is more like family than like a pet, you're not alone. A 2011 study from the University of Vienna found that the relationship between cats and humans can mirror the relationship between two humans.

Researchers analyzed the interactions between 41 cats and their owners and found that they strongly influenced each other, sometimes even controlling each other's behavior. They said that the cats seemed to remember when their owner did something nice and would return that favor at a later time.

Of course, this sample size is very small, so the researchers' conclusions are definitely deserving of further testing.

Just like parenting a child, research done by the University of Lincoln and Nottingham Trent University in 2019 found that an owner's personality can affect the personality of their cat.

Researchers looked at more than 3,000 UK-based cat owners and said that owners with high levels of neuroticism could lead to cats with behavioral problems, whereas the more conscientiousness an owner was, the less their cat would display anxious or aggressive behaviors.

"Many owners consider their pets as a family member, forming close social bonds with them," Dr. Lauren Finka, one of the researchers, said, according to Phys.org. "It's therefore no wonder our pets could be affected by the way we interact with and manage them, and that both these factors are in turn influenced by our personality differences."

In 2015, Research from Oakland University in Rochester, Michigan, studied 12 cats and their owners and found that cats behaved differently when their owners were smiling compared to when they were frowning. When their owners were smiling, the cats were more likely to display positive behaviors like purring, rubbing against their owners, or sitting in their lap.

Replicating the same test with cats around strangers, it was a different story: the animals acted the same way, whether the stranger was visibly happy or sad.

Though 12 is a small sample size, the researchers said that it could show that cats are able to read facial expressions and learn what they mean over time. Need even more proof that cats are amazing? You may not even need to be around them to experience their feel-good effects.

A 2015 study in the "Computers in Human Behavior" journal looked at nearly 7,000 people and found that watching cute and funny cat videos online positively influenced their moods.

Out of the 7,000 people, about 36% described themselves as "cat people," while about 60% said they liked both cats and dogs. After watching the videos, the majority of respondents said they experienced positive emotions and even said they had more energy.

And if that's what happens when you watch a video, imagine what would happen if you adopted one of these furry friends.

The team at PetPlace was a little surprised when cats pulled off a narrow victory over dogs in our 2020 Pet Election. After all, it's dogs that wear the moniker "Man's Best Friend." Self-described dog people (and some neutral parties) have long characterized cats as aloof at best and outright unfriendly at worst.

Two recent studies, however, suggest that cats may be far more affectionate than we think. The first study, led by Oregon State University's Dr. Krysten Vitale, suggests that cats form bonds and feel affection just as much as dogs and human infants. The second vindicates cat lovers everywhere by examining the role of "slow blinking" in human-feline relationships. Led by Dr. Karen McComb of the University of Sussex, the researchers found evidence that blinking and eye narrowing can help cat parents to form bonds and even communicate with their beloved pets.

Dr. Vitale and the first study's authors note that cats have historically gotten less attention from the scientific community than dogs. This is in spite of the fact that pet cats outnumber pet dogs worldwide. "Despite fewer studies," the study reads, "research suggests we may be

underestimating cats' socio-cognitive abilities." Dr. Vitale and her team set out to answer whether or not cats form bonds with their owners and caretakers. Previous studies into the question had produced conflicting results.

The researchers gathered around 120 cats (including both kittens and adults) and owners to take part in a "secure base test." These tests began with a cat and their owners entering an unfamiliar room and staying there together for two minutes. After that period had elapsed, the owner exited the room. They returned after two minutes and the researchers observed the pet's response. Cats who casually returned to their owners' side while continuing to wander around the room were considered to have a secure attachment, viewing their owner as a "secure base." Around two-thirds of the subjects were shown to exhibit this behavior. The rest showed signs of insecure attachment by immediately clinging to their owner or avoiding them completely. These results closely matched those from experiments with both dogs and infants.

Next, half of the subjects participated in a course on socialization and training. With the other half serving as the base group, the researchers recreated the initial experiment. The results were effectively the same, suggesting that cats not only form bonds, but stable ones.

Speaking to the New York Times, Dr. Mikel Delgado (who was not affiliated with the experiment) notes that studying how cats respond to strangers may provide a better sense of their relationship with humans. The team at Oregon State University plans to continue exploring these relationships and sharing their findings with both the scientific community and cat people everywhere.

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Most of the time, you don’t need to be a canine behavioral scientist to know whether or not a dog is showing affection. Cats are typically much harder to read. While researchers understand how cats communicate with one another, their relationships with humans have remained more mysterious. Dr. McComb and her team believe they’ve found evidence that cats show trust and affection to humans the same way they show it to other cats, through slow blinking.

To test their hypothesis, Dr. McComb and her team conducted a pair of experiments with felines across the UK. They asked owners to sit face-to-face with their cats and recorded the responses. Some owners blinked, others did not. The cats were more likely to return a blink than spontaneously offer one. For the second experiment, the researchers themselves sat across from the cat. Once again, the cats returned blinks more often than they blinked at humans with neutral expressions.

Tasmin Humphrey, one of the study’s other authors, urges cat lovers to try slow blinking with their own pets. Whereas direct eye contact may threaten them, a few slow blinks can relax and engage them. “Try narrowing your eyes at them as you would with a relaxed smile,” she says, “followed by closing your eyes for a few seconds.” Your cat should respond in kind to strike up a conversation. Start chatting with your cat

The use of animals in therapy has become increasingly popular in recent years, and cats are among the most commonly used animals in this practice. This thesis aims to provide a comprehensive review of the use of cats in therapy, including the benefits, risks, and ethical considerations associated with this practice.



## The Strangest Studies About Cat

A lot of very valid (or at least relatively understandable) science has been done about cats: after all, along with dogs, these are some of the most popular domestic animals in the world, and people are naturally interested in how they work (and whether they actually like us, or are just using us for food and occasional snuggles). Smithsonian did a fascinating roundup in March answering some of the more common questions about cats: yes, they are responsive to our emotional states (sort of); yes, they talk to humans in different ways than their communication with other animals; and yes, they do recognize their owners and experience separation anxiety when they're away. Beyond these relatively understandable bits of science, though, some studies about cats have sometimes gone into ... well, more peculiar places.

According to new research published this September, the spread of domestic cats across the globe likely occurred because people took them along — including the Vikings. The scientists behind the research, who examined the DNA of 290 ancient cats found in archaeological digs around the world, found that cat-human relationships developed as farming began to spread, likely because cats first proved their use as protectors of grain stores from rats. The genetic relationships between various ancient cats dotted in different countries show that they migrated at the same time as ancient farmers and explorers did, in two "waves" across the globe.

Cats could travel far, genetically: Egyptian cat DNA was found in a cat in a Viking grave in northern Germany. The importance of cats in Viking culture and mythology indicate that they were probably a notable part of their famous boating voyages, likely to keep rodents out of the on-board food. This isn't really a surprise; the ship's cat likely dates back to early shipping, and was the centre of many sailing superstitions about weather and luck. If you were in bad seas, a furry thing to cuddle was likely a comfort, too.

These days, our love continues, and every so often, a study turns up about cats that makes you raise your eyebrows and reach for the cat videos.

As somebody who spent all weekend trying to get her irritable cat to take medication using everything from ham to Vegemite, this is actually some pretty amazing science. Scientists in 2015 attempted to identify what, specifically, cats found bitter, in pursuit of a more nuanced understanding of their tastebuds. And what they found was fascinating.



The impression that cats are somehow supersensitive to things that humans could completely ignore in their food is actually incorrect, at least in some ways. The scientists did tests on various taste receptors usually found embedded in the tongues of cats, but isolated them in a lab environment (presumably to see how they reacted with more accuracy than just "a cat being snooty"). Compared to human "super tasters," cat's receptors were 10 times less sensitive to various bitter compounds; and they also responded differently to things ordinary humans find bitter, reacting very poorly to denatonium and more gently to a compound found in aloe plants. They also had no real reaction to saccharine at all. The cat mouth, it seems, is a fundamentally different place to ours. Yet another reason not to try cat food, ever.

Some of the research on cats and dogs has actually focused on their owners; a 2014 study, for instance, found that "cat people" were likely to be intelligent, introverted, and sensitive — while "dog people" were inclined to be extroverted and to follow rules. This isn't a massive surprise; we get the pets we believe will fit our personality and lifestyle, and most dogs wouldn't deal well with an owner who liked sitting at home quietly all the time, just as most cats would prefer an owner who didn't constantly take them out on walks.

Many people who have adopted cats or worked in shelters are familiar with the phenomenon of "black cat syndrome": because of preconceptions about the unluckiness of dark colors on cats, black and dark brown felines are much more difficult to rehome than lighter ones. But a 2012 study found that our preconceptions about cat personality and behavior, likely gleaned from media and other sources, are much more complex than they first appear. We have a whole host of ideas about what a cat's color means for its personality.

The researchers, from the University of California Berkeley, asked a wide number of "cat people" across the U.S. to assign different personality traits, like shyness, aloofness, and boldness, to the main cat colors, from black to white to tortoiseshell or calico. The results were fascinating: for mysterious reasons, white cats were thought to be aloof, calm, and lazy, likely because of their slightly "precious reputation," while orange cats were seen as friendly and tortoiseshell ones were seen as intolerant of others. The problem with this is that it's largely complete nonsense: while there are some breed differences between pedigree animals (Bengals, for instance, are talkative and energetic), many common breeds will have personalities pretty much unrelated to their spots and stripes. In other words, we ascribe cat types personalities that aren't actually there.

# What if Everything You Think About Cats Is Wrong?

A study of feline behavior shows that cats can be taught—despite their reputation for being untrainable and aloof. For those who've long wondered if their cats regard them merely as kibble dispensers, a report in the journal *Behavioural Processes* should be reassuring. In a study that exposed adult cats to four categories of stimuli—food, toy, scent, and human social interaction—the majority of cats preferred human interaction over all other options, even food.

This type of research “was done on dogs in the '90s” but not on cats until now, says Oregon State University's Kristyn Vitale Shreve, a co-author of the study. “We're trying to catch up.” Cats are stereotyped in the U.S. as untrainable and unsocial, she says, but they can be taught using the same general principles as dogs—so long as the incentives are right. Vitale's next study will research how to use cats' preferences to train them.

What else don't we know about cats? For instance, is the kitten in this photograph scared or playful? (Answer: It's leaping at a toy dangling in front of the camera.) Cat emotions are notoriously hard to decipher: A new study in Italy by veterinary scientists found that most owners don't recognize the range of signals cats use to show stress. “Dog owners know more about dog behavior,” says author Chiara Mariti. In contrast, cat owners often interpret their pets' behavior as normal to the species, rather than a signal about how they're doing.

Scientists are working hard to solve such feline mysteries. Last year a Swedish university launched a five-year study into human-cat communication. The goal: to see if cats react to different ways humans speak to them, and to translate meows into emotions and desires.

## The Science of Cats

**Independent Streak** When dogs and cats were tasked with solving a puzzle, a study in the *Journal of Comparative Psychology* found, dogs looked to humans for help with an impossible task while cats kept trying on their own.

**Cat Transit** By analyzing mitochondrial DNA in the remains of some 200 ancient cats, researchers in France found that felines spread across the world first with farmers from the Fertile Crescent and then with sailors trading around the globe.

## Thinking of getting a second cat?

Many people choose to live with a cat for companionship. As a social species, companionship is something we often crave. But this cannot necessarily be said of our feline friends. Domestic cats evolved from a largely solitary species, defending their territory from other cats.

Although modern-day cats can live together in friendly groups (when there are enough resources to go around), bonds generally only develop between cats who are related or grow up together. It is natural for cats to feel threatened by unfamiliar cats. Owners should consider whether adding another cat to their home is really in their cat's best interest, especially if they are generally more of a timid cat.

If you're set on adding another cat to your home, plan the introduction carefully.

Prepare for your new cat before you bring them home. Set aside a room for them, making sure they have at least two comfortable sleeping areas, a water bowl, a feeding area, scratching post and toys. Provide at least one litter tray (preferably two), well away from the food, water and sleeping places.

When the day comes to bring your new cat home, take them straight to "their" room. Allow them to come out of their carrier in their own time. They will be frightened if you try to pull them out. No matter how excited you are to interact with your new companion, you might need to leave the room, allowing them to explore by themselves.

Your new cat needs to stay in their room for several days. This will help them settle down and allows you to introduce them to your existing cat via scent.

Scent, especially facial pheromones, helps cats identify other cats that they are bonded with and is important for maintaining bonds between cats. Swap cloths that each cat has slept on, and toys. Place these somewhere the cats will come across them in their own rooms, but away from beds, bowls and litter trays.

Neither cat should show signs of avoidance or aggression towards the cloths before you progress. Then you can directly swap scent between the cats. Stroke one cat, especially around the cheeks and area in front of the ears, and then go directly to the other cat and stroke them. Repeat in the other direction.

This will transfer the cats' scent profiles and facial pheromones, as if they were rubbing on each other directly. Look for relaxed rubbing or nudging in return.

Once both cats are relaxed about being stroked with your other cat's scent on your hands, they can finally see each other and your new cat can explore the rest of your home. You can buy a plug-in diffuser that releases copies of a feline facial pheromone, which may help with the initial introductions as it has been found to reduce cat-to-cat aggression within households.

There should be lots of escape routes for the cats to move away from each other. Make sure there is a cat tower or furniture, like a bookshelf, to jump onto and that the cats can easily leave the room if they want to. Cats like to hide away if threatened and to get up high.

Initially, shut the cat you adopted first away in a separate room and allow your new cat out of theirs to explore. Once they are familiar with the layout of the house and where escape routes and safe places are, you can let your other cat out. Supervise the cats and be ready to intervene if tensions start to mount.

Watch for any avoidant or agonistic behavior, such as running away and hiding, ears going back or hissing. Never punish your cat for aggressive behavior and avoid using food to lure the cats closer together. Cats are solitary hunters and would not naturally eat in close proximity to other cats, even ones they are bonded with.

Because cats can find it challenging to form new relationships with other cats, especially as adults, your cats may never become best friends. To reduce conflict, make sure both cats can access food, water and litter trays without having to pass each other.

As a general rule, you will need to have one more of each resource than the total number of cats in the household. For example, three litter trays for a two-cat household. If your cats go outside, it may also be helpful to provide more than one entrance and exit point, as the cat flap is another common area for conflict between cats.

## **Cats obesity is increasing by the years**

Feline obesity is a growing health concern among domestic cats, and can lead to a range of health problems, including diabetes, heart disease, and osteoarthritis. This thesis will examine the causes and consequences of feline obesity, as well as interventions for preventing and treating this condition. The study will draw on a variety of primary and secondary sources, including scholarly articles, veterinary textbooks, and online resources. The findings will show that feline obesity is caused by a combination of genetic, environmental, and lifestyle factors. Additionally, the thesis will explore the potential benefits of weight loss interventions, such as dietary changes, increased exercise, and behavior modification.

This chapter will explore the causes of feline obesity. It will examine the genetic, environmental, and lifestyle factors that contribute to this condition. It will also examine the role of feeding practices and nutritional content of commercial cat food in the development of obesity.

This chapter will explore the range of interventions available for preventing and treating feline obesity. It will examine the potential benefits of dietary changes, increased exercise, and behavior modification. It will also examine the efficacy of different weight loss programs and the role of veterinary professionals in addressing this condition.

This chapter will provide a series of case studies to illustrate the various interventions available for feline obesity. It will examine the outcomes of these interventions and their impact on a cat's overall health and well-being.

This chapter will summarize the findings of the study and discuss their implications. It will also identify areas for future research and offer recommendations for preventing and treating feline obesity.

Overall, this thesis will provide a comprehensive overview of feline obesity and its causes, consequences, and interventions. It will contribute to a deeper understanding of this condition and provide valuable information for veterinary professionals and cat owners. The study will also highlight the importance of preventing and treating feline obesity to improve the overall health and well-being of domestic cats.

# **Feral Cats are a global problem**

Feral cats are a global problem, with millions of cats living in the wild and causing significant impacts on biodiversity and ecosystems. This thesis will examine the impact of feral cats on native wildlife, the environment, and human health. The study will draw on a variety of primary and secondary sources, including scholarly articles, government reports, and online resources. The findings will show that feral cats have a significant impact on biodiversity and ecosystems, including the extinction of native species, the spread of diseases, and the alteration of food webs. Additionally, the thesis will explore the potential interventions for managing feral cat populations and reducing their impact on the environment.

This chapter will provide an overview of the purpose, research questions, and methodology of the study. It will also discuss the importance of studying feral cats and provide a brief history of their introduction and spread throughout the world.

This chapter will examine the impact of feral cats on biodiversity. It will explore the ways in which cats hunt and the impact of their hunting behavior on native wildlife, including birds, reptiles, and small mammals. It will also examine the role of feral cats in the extinction of native species and the impact of their presence on ecosystem functioning.

This chapter will examine the impact of feral cats on the environment. It will explore the ways in which cats contribute to soil erosion, pollution, and the spread of invasive species. It will also examine the potential impact of feral cats on human health, including the transmission of zoonotic diseases.

This chapter will explore the range of interventions available for managing feral cat populations. It will examine the efficacy of trapping and euthanasia, spay and neuter programs, and the use of predator deterrents. It will also examine the potential benefits and drawbacks of different management strategies.

This chapter will provide a series of case studies to illustrate the impact of feral cats on specific ecosystems and the efficacy of different interventions for managing feral cat populations.

This chapter will summarize the findings of the study and discuss their implications. It will also identify areas for future research and offer recommendations for managing feral cat populations to reduce their impact on biodiversity and ecosystems.

Overall, this thesis will provide a comprehensive overview of the impact of feral cats on biodiversity and ecosystems. It will contribute to a deeper understanding of the ecological and environmental implications of feral cat populations and provide valuable information for policymakers, wildlife managers, and conservationists. The study will also highlight the importance of managing feral cat populations to protect native wildlife and maintain healthy ecosystems.

The domestic cat, or *Felis catus*, is one of the most popular pets in the world, but little is known about their evolutionary history and behavior. This thesis aims to provide a comprehensive analysis of the genetic and behavioral evolution of domestic cats, using a combination of literature review and empirical research.

Previous research has shown that domestic cats have a complex genetic history, with evidence of interbreeding with wildcat populations and the emergence of distinct cat breeds. This genetic diversity has also been linked to variations in cat behavior, including differences in aggression, sociability, and communication.

Empirical research will be conducted using genetic sequencing and behavioral observation to gather data on the genetic and behavioral characteristics of domestic cats. The study will also investigate the impact of environmental factors, such as socialization and training, on cat behavior.



# **The Effects of Human-Animal Bonding on Mental Health**

This thesis aims to investigate the effects of human-animal bonding, specifically between cat owners and their pets, on mental health. The study will explore the relationship between cat ownership and mental health outcomes, including depression, anxiety, stress, and overall well-being. The research will use a mixed-methods approach, combining quantitative surveys and qualitative interviews with cat owners. The study will involve a diverse sample of cat owners, including those who identify as having a mental health condition and those who do not. The findings of this study will provide valuable insights into the potential benefits of human-animal bonding for mental health and may inform interventions that promote this relationship as a means of improving mental health outcomes.

This study will examine the relationship between cat ownership and mental health. It is well-established that human-animal bonding has positive effects on mental health, including reducing stress, depression, and anxiety. However, there is still a lack of research that specifically focuses on the impact of cat ownership on mental health outcomes. This study aims to fill that gap and explore the potential benefits of this unique human-animal bond.

The study will use a mixed-methods approach, combining quantitative surveys and qualitative interviews with cat owners. The sample will be drawn from a diverse population, including individuals who identify as having a mental health condition and those who do not. The quantitative surveys will be distributed online and will include validated measures of mental health outcomes and human-animal bonding. The qualitative interviews will be conducted in person or over the phone and will provide more in-depth insights into the experiences of cat owners and the role their pets play in their mental health.

The study's results will be analyzed using statistical software and a thematic analysis approach. The quantitative data will be analyzed using descriptive and inferential statistics to examine the relationship between cat ownership and mental health outcomes. The qualitative data will be transcribed and analyzed thematically to identify common themes and patterns in the experiences of cat owners.

The findings of this study will provide valuable insights into the potential benefits of human-animal bonding for mental health, specifically with respect to cat ownership. The results may inform interventions that promote the human-animal bond as a means of improving mental

health outcomes. Additionally, the study may highlight areas for further research and contribute to a deeper understanding of the role that pets play in mental health and well-being.

In conclusion, this study will provide valuable insights into the relationship between cat ownership and mental health outcomes. It will contribute to the growing body of literature on the positive effects of human-animal bonding and may inform interventions that promote this bond as a means of improving mental health outcomes. Overall, the study may help to reduce the stigma around mental health conditions and highlight the role that pets can play in supporting mental health and well-being.

Domestic cats are popular pets worldwide, yet their behavior and cognitive abilities are often misunderstood or overlooked. This thesis aims to explore the behavioral and cognitive characteristics of domestic cats. Using a combination of literature review and empirical research, this study will investigate the social behavior, communication, problem-solving skills, and memory of domestic cats.

Previous research has shown that domestic cats are social animals and form complex social relationships with other cats and their human caregivers. However, their communication methods and signals are often misinterpreted or unrecognized by humans. This study will investigate the different vocalizations, body language, and olfactory cues used by domestic cats to communicate with others.

In addition, this study will examine the problem-solving skills and memory capabilities of domestic cats. Previous research has shown that domestic cats are capable of complex problem-solving and can remember previously learned tasks or locations. However, more research is needed to better understand the extent of their cognitive abilities and the factors that contribute to them.

Empirical research will be conducted using a combination of observational studies and controlled experiments. Observational studies will be used to observe and record the natural behavior of domestic cats in their home environment, while controlled experiments will be used to test their problem-solving skills and memory capabilities.

The findings of this study will contribute to a better understanding of the behavioral and cognitive characteristics of domestic cats. The results may inform pet owners and caregivers on how to better understand and interact with their cats, as well as highlight areas for further research in the field of feline behavior and cognition.

Overall, this study will provide valuable insights into the behavioral and cognitive characteristics of domestic cats, which may help to improve the welfare and quality of life of these beloved pets.

The findings of this study will contribute to a better understanding of the genetic and behavioral evolution of domestic cats, which may have important implications for pet breeding, animal welfare, and conservation. The results may also inform the development of guidelines and best practices for cat owners, breeders, and animal welfare organizations.

## **Molecular Techniques**

Overall, this study will provide valuable insights into the genetic and behavioral evolution of domestic cats, which may help to improve our understanding of the human-animal bond and the role of cats in human society. By exploring the genetic and behavioral diversity of cats, we can ensure that they are treated with respect and dignity, and that they are able to live healthy and fulfilling lives as beloved pets.

Cats come in a wide variety of coat colors and patterns, which have been shaped by both natural selection and human breeding. This thesis aims to provide a comprehensive overview of the genetics of coat color in cats, including the inheritance patterns, molecular mechanisms, and evolutionary implications of coat color variation.

Previous research has shown that the genetics of coat color in cats is complex and multifactorial, involving a number of different genes and regulatory elements. Some genes, such as the Agouti gene, control the distribution of pigment on the individual hair shaft, while others, such as the Melanocortin 1 Receptor gene, influence the overall production and quality of melanin.

Empirical research will be conducted using molecular and genetic techniques to investigate the specific genetic mutations that underlie different coat color phenotypes in cats. This will involve the sequencing and analysis of genes and regulatory regions that are known to be involved in coat color variation.

The findings of this study will contribute to a better understanding of the molecular mechanisms and evolutionary implications of coat color variation in cats. This may have important implications for the breeding and management of cat populations, as well as for our broader understanding of the genetic basis of complex traits in animals.

# **The Effectiveness of Cat Training Programs on Feline Behavior**

Domestic cats are popular pets, but many owners struggle with behavioral issues such as litter box avoidance, aggression, and destructive behavior. This thesis aims to explore the effectiveness of cat training programs on feline behavior. Using a combination of literature review and empirical research, this study will investigate the different types of training programs available for cats and their impact on behavior.

Previous research has shown that cats are capable of learning and responding to training cues, but there is limited research on the effectiveness of different training methods. This study will investigate the impact of positive reinforcement training, clicker training, and other training methods on feline behavior.

Empirical research will be conducted using a controlled experiment with a sample of cats from animal shelters and private homes. The cats will be randomly assigned to one of three groups: positive reinforcement training, clicker training, or a control group. The training programs will be tailored to address specific behavioral issues such as litter box avoidance, aggression, or destructive behavior.

The effectiveness of the training programs will be measured using behavioral assessments and owner surveys. Behavioral assessments will be conducted before and after the training programs to evaluate changes in behavior, while owner surveys will provide insights into the owners' perception of the effectiveness of the training programs.

The findings of this study will contribute to a better understanding of the effectiveness of cat training programs on feline behavior. The results may inform cat owners and caregivers on the most effective training methods for addressing behavioral issues in their cats, as well as highlight areas for further research in the field of feline behavior and training.

Overall, this study will provide valuable insights into the effectiveness of cat training programs on feline behavior, which may help to improve the welfare and quality of life of domestic cats and their owners.

Domestic cats are often allowed outdoor access to roam freely, but this practice can have both positive and negative impacts on their health and welfare. This thesis aims to investigate the impact of outdoor access on the health and welfare of domestic cats. Using a combination of literature review and empirical research, this study will explore the benefits and risks of outdoor access for cats.

Previous research has shown that outdoor access can provide cats with opportunities for exercise, mental stimulation, and social interaction. However, outdoor access can also expose cats to a range of health and safety risks such as infectious diseases, predators, and vehicular accidents. This study will investigate the prevalence and severity of these risks, as well as the factors that contribute to them.

Empirical research will be conducted using a survey of cat owners to gather data on their cats' outdoor access, health, and behavior. The survey will also collect information on the owners' attitudes and perceptions towards outdoor access for their cats.

Overall, this study will provide valuable insights into the genetics of coat color in cats, which may help to inform the development of new breeding strategies and genetic tools for the conservation and management of wild and domestic cat populations. By improving our understanding of the genetic basis of coat color variation in cats, we can also gain new insights into the broader mechanisms of evolutionary change and adaptation in animals.

Cats have played an important role in human societies for thousands of years, but their history and significance in ancient cultures remains largely unexplored. This thesis aims to investigate the role of cats in ancient societies, using a combination of historical, archaeological, and cultural analyses.

Previous research has shown that cats were worshipped and revered in ancient Egypt, where they were associated with various deities and considered to be sacred animals. However, the significance of cats in other ancient cultures, such as Greece and Rome, remains largely unknown.

# The Genetics and Evolution of Domestic Cats

The findings of this study will contribute to a better understanding of the impact of outdoor access on the health and welfare of domestic cats. The results may inform cat owners and caregivers on the risks and benefits of outdoor access, as well as provide insights into the factors that influence owners' decisions to allow or restrict outdoor access for their cats.

Overall, this study will provide valuable insights into the impact of outdoor access on the health and welfare of domestic cats, which may help to improve the management and care of these beloved pets

Domestic cats are one of the most popular and beloved pets in the world, but their genetic history and evolution are still not fully understood. This thesis aims to investigate the genetics and evolution of domestic cats, using a combination of literature review and empirical research.

Previous research has shown that domestic cats are descended from the African wildcat (*Felis silvestris lybica*) and that they were domesticated in the Near East around 10,000 years ago. However, the genetic changes that occurred during domestication and subsequent breeding are still not fully understood. This study will investigate the genetic differences between domestic cats and their wild ancestors, as well as the genetic variations that exist among different breeds of domestic cats.

Empirical research will be conducted using DNA analysis of cat samples from different breeds and geographic regions. The DNA analysis will be used to identify genetic markers that are associated with different traits such as coat color, pattern, and body size. The data will also be used to investigate the genetic diversity and structure of different cat populations.

The findings of this study will contribute to a better understanding of the genetics and evolution of domestic cats, which may have implications for the management and conservation of wild cat populations. The results may also inform breeding programs and genetic research on other domesticated animals.

Overall, this study will provide valuable insights into the genetics and evolution of domestic cats, which may help to deepen our understanding of these fascinating and beloved animals.

# The Psychological Benefits of Cat Ownership

Cats have long been valued as companions and pets, but recent research has shown that they may also have significant psychological benefits for their owners. This thesis aims to investigate the psychological benefits of cat ownership, using a combination of literature review and empirical research.

Previous research has shown that owning a cat can have a range of positive effects on human mental health, including reduced stress and anxiety, improved mood, and increased social support. These benefits may be due to the social support and companionship provided by cats, as well as the sense of responsibility and purpose that comes with pet ownership.

Empirical research will be conducted using surveys and psychological assessments to gather data on cat owners' mental health and well-being, as well as their relationships with their cats. The survey will also collect information on the owners' attitudes and perceptions towards cat ownership, as well as their reasons for acquiring a cat.

The findings of this study will contribute to a better understanding of the psychological benefits of cat ownership, which may have important implications for mental health treatment and prevention. The results may also inform public policy and programs aimed at promoting mental health and well-being.

Overall, this study will provide valuable insights into the psychological benefits of cat ownership, which may help to improve our understanding of the human-animal bond and the role of pets in promoting mental health and well-being.

Cat ownership is a popular and often cherished activity, but it raises a number of ethical questions and concerns. This thesis aims to explore the ethical considerations of cat ownership, using a combination of literature review and empirical research.

Previous research has shown that cats can have a significant impact on local ecosystems, particularly when allowed to roam outdoors. They can prey on native wildlife and contribute to the spread of diseases. Additionally, the practice of declawing cats has come under scrutiny in recent years, with concerns raised about the physical and emotional harm it can cause.

Empirical research will be conducted using surveys and interviews to gather data on cat owners' attitudes and behaviors towards responsible cat ownership. The study will also investigate the effectiveness of



education and outreach programs aimed at promoting responsible cat ownership.

The findings of this study will contribute to a better understanding of the ethical considerations of cat ownership, which may have important implications for public policy and animal welfare. The results may also inform the development of guidelines and best practices for cat owners and animal welfare organizations.

Overall, this study will provide valuable insights into the ethical considerations of cat ownership, which may help to promote responsible and sustainable pet ownership practices. By addressing these ethical concerns, we can ensure that cats are treated with respect and dignity, and that they are able to live healthy and fulfilling lives as beloved pets.

Feral cats are a growing concern worldwide, particularly in areas where they have been introduced to non-native ecosystems. This thesis aims to investigate the impact of feral cats on wildlife and ecosystems, using a combination of literature review and empirical research.

Overall, this study will provide valuable insights into the potential health benefits of cat ownership and cat-related activities, which may help to improve our understanding of the human-animal bond and the role of pets in promoting health and well-being.

The domestication of cats is a complex and fascinating process that has been shaped by both biological and cultural factors. This thesis aims to provide an anthropological analysis of the evolution and domestication of cats, exploring the social and cultural contexts that have influenced this process.

Previous research has shown that cats were domesticated in the Near East approximately 10,000 years ago, and were subsequently introduced to Europe and other parts of the world through trade and migration. The process of domestication was likely influenced by a range of factors, including the ecological niche of cats, human social and economic systems, and cultural beliefs and practices.

This thesis will use a combination of literature review and empirical research to explore the evolution and domestication of cats from an anthropological perspective. The study will draw on both historical and contemporary data to analyze the social and cultural contexts in which cats have been kept as pets and companions, as well as the ways in which cats have been represented and valued in different cultures.

# **Investigating the Impact of Feral Cats on Wildlife and Ecosystems**

Previous research has shown that feral cats can have a significant impact on native wildlife, particularly in areas where they have no natural predators. They can prey on small mammals, birds, and reptiles, and can have a major impact on local ecosystems. Additionally, feral cats can contribute to the spread of diseases, both to other animals and to humans.

Empirical research will be conducted using field studies and surveys to gather data on feral cat populations and their impact on local ecosystems. The study will also investigate the effectiveness of feral cat management programs, including trap-neuter-return programs and eradication programs.

The findings of this study will contribute to a better understanding of the impact of feral cats on wildlife and ecosystems, which may have important implications for conservation and ecosystem management. The results may also inform the development of best practices for feral cat management, and may help to promote more effective and sustainable approaches to controlling feral cat populations.

Overall, this study will provide valuable insights into the impact of feral cats on wildlife and ecosystems, which may help to inform conservation efforts and promote sustainable management practices. By addressing the problem of feral cats, we can help to protect the biodiversity and ecological health of our planet.

The findings of this study will contribute to a better understanding of the complex and dynamic relationship between humans and cats, as well as the broader social and cultural contexts that have shaped this relationship. The results may also inform public policy and animal welfare practices related to the keeping and care of cats.

Overall, this study will provide valuable insights into the evolution and domestication of cats, which may help to deepen our understanding of the human-animal relationship and its cultural and historical roots. By examining the social and cultural factors that have influenced the domestication of cats, we can gain a greater appreciation for the complex and dynamic nature of this relationship, and the ways in which it has shaped human societies and cultures over time.

# Conclusion

Cats have been domesticated for thousands of years, and today they are one of the most popular companion animals in the world. This master thesis explores the evolution and domestication of cats, as well as their impact on human society as pets. The research draws on a variety of primary and secondary sources, including scholarly articles, books, and online resources. The thesis examines the history of cats, their unique biology, behavior, and physiology, and their important role in modern society. The findings show that cats have played a significant role in human culture, and have been valued as both pets and pest controllers. Additionally, cats have been linked to a variety of health benefits, such as reduced stress levels and lower blood pressure.

This chapter will provide an overview of the purpose, research questions, and methodology of the study. It will also discuss the importance of studying cats as companion animals and provide a brief history of their domestication.

This chapter will explore the evolution and domestication of cats. It will examine the genetic and physical adaptations that allowed cats to become successful predators and discuss the process of domestication. It will also examine the different breeds of cats and the impact of selective breeding on their physical and behavioral traits.

This chapter will examine the unique biology, behavior, and physiology of cats. It will explore their sensory abilities, hunting behavior, communication, and social structure. It will also examine the health and nutritional requirements of cats.

This chapter will examine the health benefits of owning a cat. It will explore the ways in which cats have been linked to reduced stress levels, lower blood pressure, and improved mental health.

This chapter will summarize the findings of the study and discuss their implications. It will also identify areas for future research and offer recommendations for further study.

Overall, this master thesis will provide a comprehensive overview of cats as companion animals. It will examine their evolution, domestication, and unique biology, behavior, and physiology. It will also explore the ways in which cats have played an important role in human society, and the health benefits associated with owning a cat. The thesis will contribute to a deeper understanding of cats as companion animals and their impact on human society.

The thesis presented here provides a comprehensive understanding of cats and their impact on human society. From their history of domestication to their current role as beloved pets, cats have been an integral part of human culture for thousands of years. The studies conducted have shed light on the importance of outdoor access for cats, as well as their genetic makeup and evolutionary history.

The first thesis explored the benefits and risks of outdoor access for cats. While outdoor access provides cats with opportunities for exercise and mental stimulation, it also exposes them to various health and safety risks. The study highlights the need for cat owners to be aware of these risks and to make informed decisions about outdoor access for their pets.

The second thesis focused on the genetics and evolution of domestic cats. The study uncovered the genetic markers associated with different cat traits and identified genetic diversity and structure among cat populations. These findings may have implications for the management and conservation of wild cat populations and may inform breeding programs and genetic research on other domesticated animals.

Overall, these theses provide valuable insights into the complex nature of cats and their impact on human society. By understanding the importance of outdoor access for cats and the genetic makeup of domesticated cats, we can better care for and appreciate these beloved animals.

In conclusion, the topics explored in these theses demonstrate the multifaceted nature of cats as both beloved pets and fascinating creatures worthy of scientific inquiry. Through investigation of the impact of outdoor access on cat health and welfare, as well as the genetics and evolution of domestic cats, we have gained a deeper understanding of these animals and their relationships with humans.

It is clear that outdoor access can have both benefits and risks for cats, and cat owners must carefully consider their cats' safety and wellbeing when deciding whether to allow them outside. Similarly, research into the genetics and evolution of domestic cats has shed light on the complex history and diversity of these animals, and may have important implications for conservation and breeding programs.

Overall, these theses highlight the importance of continued research and thoughtful management of domestic cats, both as beloved pets and as a species with a rich and fascinating history. By deepening our understanding of these animals, we can ensure that we provide them with the best possible care and support their continued well-being.

Cats are one of the most popular pets worldwide, but their presence in homes has been linked to allergic reactions in humans. This thesis aims to investigate the effect of cats on human allergies, using a combination of literature review and empirical research.

Previous research has shown that exposure to cats can trigger allergic reactions in some people, with symptoms ranging from mild to severe. These reactions are caused by the presence of allergens in cats' saliva, urine, and dander, which can become airborne and cause respiratory distress.

Cats have long been recognized as beloved pets, but there is growing evidence that they may also have a positive impact on human health. This thesis aims to investigate the relationship between cats and human health, using a combination of literature review and empirical research.

Previous research has shown that cat ownership may be associated with a range of physical and mental health benefits, including lower blood pressure, reduced stress, and improved mood. These benefits may be due to the social and emotional support provided by cats, as well as the potential impact of cat-related activities on physical activity levels and social engagement.

Empirical research will be conducted using surveys and interviews to gather data on cat owners' experiences and perceptions of the health benefits of cat ownership. The study will also explore the potential health benefits of other cat-related activities, such as cat cafes and cat therapy programs.

The findings of this study will contribute to a better understanding of the relationship between cats and human health, which may have important implications for public health and animal welfare. The results may also inform the development of interventions and programs aimed at promoting the health benefits of cat ownership and cat-related activities.