



# Forgotten Ones Cat Rescue

## Mewsletter

Spring 2024

### TIME TO PAWS AND REFLECT



In the last few years, the importance of connecting with others has become increasingly evident, and having a sense of community and sharing common goals are vital in a world that continues to be so polarized. For many, volunteering has proven to

be a meaningful way to contribute to society and make a positive impact.

Volunteer Week is coming up in April, and it is a great time to acknowledge the many ways many people support Forgotten Ones. We have dozens of volunteers who are visible to the public: those who help at our Tru Pet adoption enclosure, or who foster cats and kittens, or who transport cats from municipal shelters and to-and-from veterinary clinics. But there are those who work behind-the-scenes, and

whose support is of immense value to our animal advocacy efforts.

We have sewers and knitters who volunteer their time to make beautiful handcrafted pet-themed merchandise for fundraising, as well as a group of amazing bakers who contribute to our popular bake sales. Additionally, we have people who volunteer their professional skills and help with our graphic design and editorial needs. We also have those who provide crucial help with administrative tasks and fundraising. An article published in *Psychology Today* in 2023 stated that “experiencing a sense of belonging is vital for our psychological well-being. Being a part of a healthy community can help us feel connected to others, as well as feel we're part of something larger than ourselves.”

Forgotten Ones continues to be a positive presence in our community, thanks to the dedication of volunteers, and, in return, I hope that the time people donate to Forgotten Ones is of positive benefit to them.

Laura Wyatt, Director, Forgotten Ones Cat Rescue

### ADOPTION ALUMNI: Suzy



Suzy was a stray kitten when she was rescued by Forgotten Ones. I started fostering her in late May 2015 and officially adopted her on Feb. 13, 2016. She is a smallish, very cute, black-and-white kitty with a pink nose.

One silly thing she has done since she was a kitten is a spinning ritual. If there is a strong overhead light that casts her shadow, she will spin around trying to catch the shadow or her tail—so I call her Suzy Snazzypants Spinarama.

Suzy has a long-standing hatred of going to the vet clinic. Once, during the COVID lockdown, she got loose from the staff in the exam room and ended up on top of the cabinets. I had to go into the clinic to coax her back down.

She has other life-long habits: if you start scratching her neck, she won't let you stop and will keep reaching out to grab your hand to continue; she also likes to watch sports on TV, and she tries to catch the ball or puck on the screen.

Suzy is fiercely independent. She doesn't really like the other cats in the house, yet, ironically, they all seem to like her. Even the other cats in the neighbourhood come by to see her.

Suzy doesn't seem to like other people either, but she loves her daddy!

~ Wayne





# CATching Criminals

## Shedding is No Longer Seasonal

Having a household pet makes it almost impossible to avoid cat hair on our clothing—particularly because domestic cats shed all year round.

Cats in the wild generally shed their coats twice a year, in the spring to lose the heavy winter undercoat and in the fall in preparation of the undercoat.

However, domesticated cats are subjected to air conditioning in the summer and home heating in the winter, so their systems are somewhat confused and are in a constant shedding state.



**Amazingly, advances in animal DNA technology now stand at the forefront of forensic science.** In recent years, studies have confirmed that a person's interaction with a pet can result in evidence being left behind when a crime is committed. Pet hairs transferred to a victim, suspect, or crime scene can help identify the perpetrator and, additionally, examining trace DNA transferred from a human to a pet might become a tool to help in police investigations.

## IDENTIFYING FELINES TO CATCH FELONS

A 2022 survey found there were an estimated 8.5 million cats in Canadian households, which means millions of Canadians bear evidence of a resident cat on their person every day. Anyone who has a cat knows that it's almost impossible to leave their house without cat hairs somewhere on their clothes. For most citizens, pet hair on one's clothing can be annoying; due to advances in forensic testing, for lawbreakers it can also be incriminating.

## Testing Feline DNA

Both nuclear DNA and mitochondrial DNA are used in forensic DNA identity testing. Nuclear DNA is found in the cell nucleus; mitochondrial DNA is found in cell cytoplasm, the fluid that surrounds the cell nucleus. The identification of humans through mitochondrial DNA testing has been used in forensic investigation for almost 30 years, but now it is being used to identify cats.

In a paper published in October 2023 in the journal *Forensic Science International Genetics*, researchers at the University of Leicester in England confirmed that cat hair DNA could link a suspect to a crime scene or a victim. Emily Patterson, the lead author of the study and a Leicester PhD student, described a novel method that can extract the maximum DNA information from just one cat hair. "Hair shed by your cat lacks the hair root, so it contains very little usable DNA," Patterson said. "In practice, we can only analyze mitochondrial DNA, which is passed from mothers to their offspring, and is shared among maternally related cats."

She went on to explain that the research team discovered a new process on the cutting edge of forensic science: "Our new method enabled us to determine the sequence of the entire mitochondrial DNA, ensuring it is around 10 times more discriminating than a previously used technique, which looked at only a short fragment."

### **Making Every Cat's DNA Identifiable**

Dr Jon Wetton, another member of the team behind the breakthrough technology, said, "Cat hair at crime scenes was disregarded until now, because cats have such similar DNA. But this method can identify individual cats, even decades after they have died, so could be invaluable in cold cases."

"In a previous murder case," Wetton continued, "we applied the earlier technique but were fortunate that the suspect's cat had an uncommon mitochondrial variant, as most cat lineages couldn't be distinguished from each other. But with our new approach virtually every cat has a rare DNA type and so the test will almost certainly be informative if hairs are found."

The team tested the new method in a lost-cat case where DNA from skeletal remains of a missing female cat was successfully matched with DNA from hair from her surviving male offspring.

The study's co-lead, Professor of Genetics Mark Jobling, added, "In criminal cases where there is no human DNA available to test, pet hair is a valuable source of linking evidence, and our method makes it much more powerful. The same approach could also be applied to other species—in particular, dogs."

### **CATS AS EVIDENCE COLLECTORS**

DNA analysis technology has become so sophisticated that even the most minute traces of genetic material can be relevant to a crime investigation. Touch DNA, also known as trace DNA, is a forensic method for analyzing DNA left at the scene of a crime. Touch DNA on its own isn't enough to positively identify a suspect, but it can be used to support other lines of evidence or to rule people out.



### **A Forensic Science Principle**

Dr. Edmond Locard (1877 – 1966) was a French criminologist, who was considered to be the father of modern forensic science.

Locard's most famous contribution to forensic science is known today as "Locard's Exchange Principle".

According to Locard, "it is impossible for a criminal to act, especially considering the intensity of a crime, without leaving traces of this presence."

This means that when an individual commits a crime they leave a trace of themselves at the scene while simultaneously taking something from the scene when they leave.

Modern forensic science classifies this phenomenon as trace evidence.



## Never Out of Touch

Since the first use of DNA evidence in a criminal case in 1986, forensic scientists have considered biological material (such as hair, skin, and bodily fluids) to be relatively reliable physical evidence.

While early technology required a substantial amount of biological material to extract enough DNA to build an individual profile for analysis, researchers have since discovered that they can obtain reliable DNA from more than just bloodstains or visible fluids; they can also obtain it from “touch DNA” that is left behind on surfaces or objects such as doorknobs, window latches, or steering wheels.

Touch DNA obtained from a surface doesn't even necessarily require the person to touch that surface. It can be transported by a number of means—in skin cells or hairs that drift from a passing body.

A cat hair floating in the air and landing on clothing could be a source of touch DNA, even if there was no physical contact with a victim or suspect.



In 2022, scientists from Flinders University in Adelaide, Australia, conducted tests to determine whether traces of human DNA could be detected on cats' fur, and the conclusions were published in *Forensic Science International: Genetic Supplement Series*. The research confirmed that the fur of cats can retain enough material shed by the people who have shared a space with the animal, even fleetingly, to allow for DNA to be recovered and help identify the individuals.

The Flinders University paper was the first to study how pets can act as vectors of DNA transfer and test results confirmed the significance of its findings. “Collection of human DNA is important in crime scene investigations, but there is a lack of data on companion animals such as cats and dogs in their relationship to human DNA transfer,” said forensic scientist Heidi Monkman of Flinders University. “These companion animals can be highly relevant in assessing the presence and activities of the inhabitants of the household, or any recent visitors to the scene.”

## The Study

To conduct the study, Monkman and Flinders University colleague Mariya Goray, an experienced crime scene investigator, teamed up with forensic scientist Roland van Oorschot of the Victoria Police Forensic Services Department.

Their study was performed on 20 cats from 15 households. At the homes of the study participants, the researchers swabbed the fur on the right side of each cat twice, and collected DNA samples from most of the human study participants (one was a minor child who was not sampled). The cat swabs and the human DNA samples were then processed.

In addition, the occupants of the household filled out questionnaires on the cats' daily behaviour and habits, as well as how often the pet was touched and by whom.

## The Results

The results of the test were impressive—detectable levels of DNA were found in 80 percent of the cat swab samples. Interestingly, for all cats, there was no significant difference between the amount of DNA present on the fur and the time since last contacted by a human. The length of hair on the cat also did not affect results.

In addition, the team was able to generate DNA profiles from 70 percent of the cats in the study that could be interpreted well enough to be linked to a human. Most of the DNA was from people in the cat's own household, but on six of the felines only unknown human DNA was detected.

Encouraged by the significance of the study results, further work on the transfer of human DNA to and from companion animals is being conducted at Flinders University. 🐾

# My Grandfather's Cat

**Everyone's life is a journey full of twists, turns, detours, and new directions. For Angela Rafuse, adopting her grandfather's cat led her down an unexpected path, where she found a purpose in life and founded a charity dedicated to rehoming pets.**

In 2018, Angela Rafuse's 85-year-old grandfather passed away, leaving his much-loved 14-year-old calico cat Mackenzie without a home. None of his relatives had the capacity to provide for her, nor did they really want to deal with the temperamental pet, so Angela decided she would be the one to take in her grandfather's cat.

During that unsettled period of Angela's life, her future was uncertain. She had just moved back in with her parents after splitting with her partner, and she was dealing with the sadness of her grandfather's death. "I was processing the grief and heartbreak of a break-up and losing my grandfather," she said. Still, she felt an obligation to give her grandfather's pet a home. "At the time, there wasn't any option, other than for a family member to adopt her or to put her into a shelter," said Rafuse. "I didn't want her to spend her final years in a shelter, so I decided to adopt her."

Mackenzie moved in with Angela, and the two became roommates in the basement apartment of Angela's parents' home. It quickly became evident to Angela that Mackenzie was not an easy-going companion. The calico was very grumpy and hissed a lot, but Angela realized Mackenzie was just scared because of all the changes she had gone through.

## An Idea for a Video

In December 2020, Angela had planned to post a cheerful *Merry Christmas* message on Facebook from Mackenzie and herself, but the fiery feline's message was the complete opposite of joyful. "Before I got to that [Merry Christmas] part, Mackenzie scratched me across the face... So dramatic," Angela said. "I thought it was a hilarious video. I posted it to Facebook and my family immediately thought it would go viral." And her family was right—it did go viral and, surprisingly, the post also became the catalyst for a change in Angela's life.

Within hours, the video had tens of thousands of views, and followers were curious about the sassy cat's history "They kept asking, 'Why did you call her Mackenzie?'" said Rafuse. "I always would respond with 'I didn't name her, she's my grandfather's cat.'" When Angela explained the reason she had adopted Mackenzie, others began sharing their own

## Honouring Both Grandparents

Angela's grandfather and his pet cat Mackenzie (below) were the inspiration behind the founding of My Grandfather's Cat, which was launched on his birthday in 2021.

My Grandmother's Pet Pantry was inspired by Esther, Angela Refuse's grandmother. Esther was a compassionate animal lover who would open her pantry to anyone in need. Her kindness and generosity were the foundation of the program which commenced this year on February 20th, Esther's birthday.

Each season, the program arranges for pet food to be shipped directly to the door of 25 seniors to help them offset the rising cost of pet food.





stories of having to find homes for pets whose senior owners had passed or had moved into assisted living.

### **An Idea for a Charity**

Believing that there must be resources available to help pets left homeless when their owners died, Angela researched available pet rehoming services so she could pass the information on to others. “I’ve worked in nonprofits for the majority of my career, so I’m very used to finding resources for people when they are in need,” she said. “I was Googling resources to send to these strangers... and nothing existed.”

Angela soon learned that there was very little help available for orphaned pets in need of a second home. Given her professional skillset, Angela made a life-changing decision to found a charity to fill the need. She described her reasoning behind the decision: “It’s just marketing cats, and it can be completely virtual. It’s just finding a home. I can do this!”

Angela said the decision was out-of-character for her: “I don’t know where my confidence came from, because I don’t consider myself a confident person whatsoever. I really see it as more-or-less a divine intervention that I was, like, ‘I’m going to start a business. I’m going to call it My Grandfather’s Cat.’” And she did.

### **Life Lessons**

Angela’s journey with Mackenzie has opened her eyes to many things. She learned that Mackenzie appeared to be aggressive, but is truly a loving and adventurous cat with just a bit of an attitude.

Through sharing videos of herself and Mackenzie on Facebook and TikTok, Angela learned that many seniors are worried about what would happen to their pets if they moved to a retirement home or when they passed away. Knowing she had the ability to help these seniors inspired Angela to found My Grandfather’s Cat.

Above: In February 2023, Angela and Mackenzie celebrated the first 100 adoptions arranged by the charity.

### **An Idea Comes to Fruition**

Since the charity’s inception in 2021, My Grandfather’s Cat has helped rehome 175 cats. The service is offered free of charge and is available in all Canadian provinces and territories. Most seniors who need to rehome their pets are referred to My Grandfather’s Cat by care homes or shelters. They submit an application to the charity, and the charity’s team then writes the pet’s profile to post on social media. Next, volunteers interview interested applicants to find a good fit for the feline and a family. The senior also has the opportunity to interview the applicant, which gives them reassurance and comfort throughout the rehoming processes.

The organization is volunteer-run, and Rafuse appreciates the work of her team, who have dedicated “countless hours” to rehoming animals and organizing fundraisers.

Angela’s journey has given her a new career and a new outlook. “It gives me so much purpose in life,” she said. As well, she has new insights: There are incredibly kind, generous, and selfless human beings in this world who are looking to make a difference.” 🐾



# The Many Ways Cats Have Their Say!



**Cats have been regarded as mysterious and aloof creatures for centuries but, in actuality, they are quite forthcoming and communicative.**

In the wild, big cats relay how they are feeling using body language and posture, vocalizations, and scent. Although the domestication of cats happened more than 10,000 years ago, our cat companions retain many of their ancestor's wild traits, and methods of feline communication have not altered much.

Cat talk and nonverbal messages can definitely be understood, so let's look at some methods cats use to convey their feelings.

## **Vocalizing with Meows, Purrs, and More**

Cats use vocalizations to express emotion. Meows, purrs, hisses, growls, and more are sounds included in the feline repertoire, each with special meanings depending on their context.

Although we tend to see meowing as the most common form of cat communication, adult cats normally don't meow at each other; domesticated cats have learned to meow at humans. Some scientists think the meow is a manipulative behaviour that cats adopt to get what they want from their owners.

Cats can become increasingly vocal as they age. Two possible reasons for this are age-related dementia and deteriorating eyesight. Both conditions can be confusing and stressful, and could cause an elderly cat to meow to seek reassurance.

## **Ear Talk**

Cats have 32 muscles in their ears, allowing them to make facial expressions to convey a broad range of emotions. A cat with

## **Here's Looking at You Kitty!**

Cat body language is a key way that felines communicate, but behavior is always contextual. It is important to pay attention to the cat's entire body signals.

### **A Relaxed Cat**

A relaxed cat will have loose, fluid movements. Their body will appear relaxed, and their tail will hang loosely or gently sway from side to side. Relaxed cats may also exhibit behaviors like kneading, purring, or stretching.

### **A Tense Cat**

A tense cat will exhibit stiff and rigid body language, indicating stress or unease. Their muscles may be visibly tense, and their tail may be held close to their body or tucked between their legs. Tense cats may also flatten their ears against their head and dilate their pupils as a defensive response to perceived threats.

Ears slightly forward is likely feeling content or even playful. When the ears are upright, it means the cat is on alert—some noise has caught his attention, and he is intent on listening to the sound. When a cat's ears are back and flat against the head, this is a sure sign he is scared and feeling defensive.

### **Eye Talk**

Like humans, cats communicate with their eyes. Interpreting the message involves noting how open or closed the eyes are, as well as the dilation of the pupil.

Wide-open eyes show trust, while narrowing the eyes to a slit can signal fear or aggression. Droopy, sleepy-looking eyelids are a sign that your cat is relaxed and trusting.

A quick dilation of the pupil results from sudden arousal, which could be due to fear, interest, or any other strong emotion.

A slow blink in your direction is how your cat sends a “kitty kiss” of affection. However, if your cat is staring at another cat without blinking, that is a sign of dominance or aggression.

### **Tail Talk**

The cat tail signals interest, affection, arousal, and more. The height of the tail, as well as the motion, has meaning. Cats hold their tails up when they want to be approached and they welcome interaction. When it is tucked between the legs, the cat is expressing fear.

A flailing or thumping tail usually is a signal for you to keep your distance. A tail that's swishing back and forth can convey mixed messages, either a sign that the cat is ready to play or that the cat is frustrated.

If the fur on the tail bristles, it shows defensiveness, and when the tail is held high and bristled, the cat is ready to fight.

### **Smell and Scent**

Cats are territorial, and the scents they leave behind are clearly designed to send the message “This territory is mine.” Territorial messages can be either positive or negative.

When your pet rubs against your legs or gives you head butts, it is the feline way of expressing love. Cats use the scent glands on their feet, cheeks, foreheads, tails, and paw pads to mark and claim a person as their own.

Cats will mark territory with urine as a way of indicating they are stressed. Cats are creatures of habit, and many react badly to even the slightest changes in their environment. Stressors can include a move, a new pet or baby in the house, a caretaker's absence, a strange cat in the backyard, and other environmental factors that we might not notice or understand. Marking territory with urine is a cat's way of trying to relieve their anxiety by staking out their boundaries 🐾

### **Can Cats and Dogs Communicate with Each Other?**

Dogs and cats can learn each other's body signals through observation, which enables them to communicate effectively. They already use body language in many similar ways, such as: flattening the ears, crouching, and retreating when afraid or staring intently as a sign of dominance.

Cats and dogs can sometimes integrate the other pet's communication techniques. For instance, well-socialized dogs are often willing to adapt by greeting cats with nose-to-nose sniffing and will accept head rubbing.







An edition of *Pussy and Her Language* is still being published today and has been selected by scholars as being culturally important.

Above: Current copies are reproduced from the original artifact, and include the original copyright references, library stamps, and other notations that prove authenticity.

Below: Grimaldi's essay includes cat to English translations.

#### 114 PUSSY AND HER LANGUAGE.

I have already given seventeen of the most important words of the feline language, with their English equivalents, as follows:

Aelio.....	Food.
Lae.....	Milk.
Parriere.....	Open.
Aliloo.....	Water.
Bl.....	Meat.
Ptlee-bl.....	Mouse meat.
Bleeme-bl.....	Cooked meat.
Pad.....	Foot.
Leo.....	Head.
Pro.....	Nail or claw.
Tut.....	Limb.
Papoo.....	Body.
Oolie.....	Fur.
Mi-outw.....	Beware.
Purrieu.....	Satisfaction or content.
Yow.....	Extermination.
Micouw.....	Here.

## A UNIQUE LINGUISTIC PURR-SPECTIVE

Being able to interpret the many ways a cat is trying to talk to us has been studied by scientists for decades. In the late 1800s, a French professor believed cats also had an actual language.

In 1895, Professor Alphonse Leon Grimaldi held a great admiration for cats, an attitude that was not widespread at that time. Before the 20th century, cats were primarily outdoor animals used to catch rodents, and they were infrequently brought indoors or loved as companions.

Grimaldi wrote an essay defending the merits of cats, and he took his argument a step further by asserting that cats have an actual language that can be understood by humans. The cat language included both vocalized words and physical signs.

As an example of a cat's physical language, Grimaldi wrote about the various meanings of tail movements. He stated that a tail straight up in the air indicates pride and satisfaction, a tail waving side-to-side shows dislike, and a tail curled under the body means fear. He also noted that a tail pointed towards the fire signifies rain is on the way. Interestingly, all but one of his examples remain a commonly held belief today.

With regards to cat vocalization, Grimaldi had a precise and detail-oriented approach to cat language. In his essay, he stated, "In the word part of the language of the Cat there are, probably, not more than six hundred fundamental words, all

others being derivatives. Consonants are daintily used, while a wide berth is given to explosives and the liquid letters 'L' and 'R' enter into the great majority of sounds."

Grimaldi was hesitant to make his findings public for fear of ridicule, but he gave permission for his essay to be included in a book called *Pussy and Her Language*, published by Marvin R. Clark in 1895. Grimaldi told Clark that he had not dared publish his findings since "he never could have lived through the sarcasm and taunts of those men of science, who would have over-whelmed him with abuse."

On the final page of his book, Clark expressed his firm conviction that there was great merit to the study of the cat language. He stated that there "can be no doubt that with the aid of the phonograph and other modern instruments...great progress will be made in translating and disseminating the feline language." And this, Clark stated, "is a subject of vast importance." 🐾



### **Buddy – A Second Chance for Love**

Buddy is a black cat, so the irony of us getting him right around Halloween 2018 was not lost on us. When Forgotten Ones volunteers first brought Buddy to our home, they explained that his last adoption attempts had not gone well. Buddy would hide and would not come out to eat or drink, or even to use the litter box. Well, he did the same thing with us! He hid and would not come out, and no amount of gently speaking to him or trying to lure him out with food would work. This went on for about 48 hours.

The evening of the third day he was still hiding, but we just kept talking to him and petting him—when he was not hissing at us. We would leave him alone for about 15 minutes and then we would try again. At about 10 p.m., I guess he thought we would not harm him, and he came out of hiding, and we had an amazing love fest with him.

He was head butting us and accepting a lot of love. He ate and drank, and then he took full advantage of the litter box. That was it—he decided this could be his home and that we were okay! Within a few days he owned the joint.

Buddy is a big character and we love him to death. His greetings when we come home are always great and usually involve a bunch of head butts. He loves my beard for that purpose. My colleagues all know him from Zoom calls, and he will make guest appearances behind me. I know he is there because somebody will yell, “Hey, Buddy!”

His life was pretty rough before, from what we were told, and he can be skittish at times. I think it goes back to some tough living he had to endure. Mostly now Buddy just loves life and makes our lives better. ~ Mark & Mally



### **Poppy – An Endearing Introvert**

I learned about Poppy from the Forgotten Ones website, and we decided to adopt her because her picture was so sweet-looking. The kids came with me to meet her, and she was so sweet that we wanted her immediately.

Poppy settled in great with our family. We introduced her very slowly to the two other cats we had at the time, but there were no issues. To this day, she gets along well with our other cats, even the new ones we have introduced her to lately. She also has a guinea pig sister who she watches over.

Poppy doesn't like when people come to the house and she will hide. She is a very shy girl but she likes our family. She found her “person” in my 19-year-old daughter. She will sleep on my daughter's bed and follows her whenever she goes to her room.

Poppy LOVES to drink water from our bathtub tap and will race to the bathroom when she sees you are headed that

way. She's a very clean cat and grooms herself fastidiously to keep herself looking so clean and white. She also has the sweetest little meow!

We love Poppy because of her sweet nature, and she has a safe and happy home with us and three cat siblings to play with. The fact she is so shy makes us love her more because we want to protect her. ~ Tracy & Family