

# Perspectives On Cats

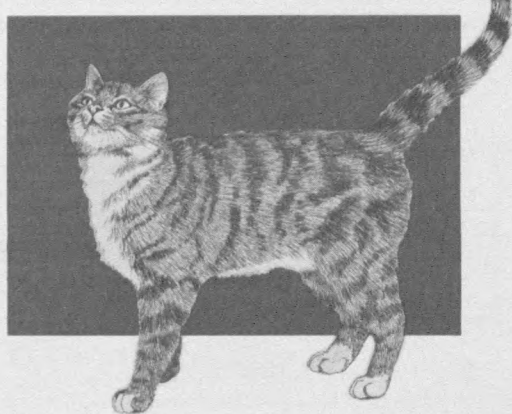
A Newsletter for Cat Fanciers  
From The Cornell Feline Health Center

Summer 1986  
N. Y. S. COLLEGE  
VETERINARY MEDICINE

JUL 3 1986

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## New Studies Identify Cause of Cat Scratch Disease



A cat scratch or bite can be a minor injury or it could be the start of cat scratch disease (CSD) -- also known as cat scratch fever, cat scratch syndrome, or benign lymphoreticulosis. Even though about 90% of CSD patients had contact with a cat, the cat's role in the disease still remains a mystery.

Although the disease is self-limiting and not life-threatening, the painful enlargement of lymph nodes can be disconcerting to a person inflicted with the disease until a positive diagnosis of CSD is made. Other symptoms of the disease include lethargy, chills, inappetence, fever, and skin lesions. Most skin lesions persist one to three weeks. The enlarged lymph nodes usually develop about two weeks after the scratch or bite and may last for several months before gradual resolution.

Two recent studies have identified a bacterium as the causative agent. After studying a

single case in 1981, Wear and coworkers discovered a small, gram-negative bacterium in lymph node tissue of a CSD patient. Upon further investigation from 1982 to 1983, the same bacilli was identified in 34 of 39 CSD patients. To further substantiate their studies, Wear and coworkers isolated the same bacilli in conjunctival lesions in 9 of 24 patients with Parinaud's oculoglandular syndrome (POGS), thus indicating a common cause of the two diseases.

However, in 1985 Gerber and coworkers identified a gram-positive bacterium from a lymph node of a CSD patient. Further biochemical and physiological tests suggest that it may be a member of the genus *Rothia*. This particular genus is comprised of organisms which are common inhabitants of the mouth and throat. Hadfield and Wear strongly refute Gerber's studies, since *Rothia* is not characteristic of the CSD bacilli they studied. Wear and coworkers believe that the causative agent of CSD, when isolated, will probably be a previously unknown bacterium.

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Presently, there is no reliable diagnostic test for CSD. Diagnosis is usually made on the basis of symptoms, contact with a cat, biopsy of an affected lymph node, and a hypersensitivity skin test. Also, there is no drug available to treat CSD patients because the causative agent is still questionable. Furthermore, no tests exist which can determine if a particular cat is a carrier of CSD. Therefore, it would be prudent to restrict the contact of a suspected CSD-carrier cat from close contact with children and family members that receive immunosuppressive drugs (i.e. cortisone), or are immunocompromised from other causes. ■

## Warning! Summer Heat Wave

When you're hot you're hot, but for a cat it could be deadly. Unfortunately, cats are very intolerant of high environmental temperatures, which their owners can well withstand. Man has a very efficient built-in cooling system--sweating; whereas a cat's only defenses against high temperatures are rapid breathing and licking its fur. If the cat is exposed to a situation where the air it's breathing is warmer than its internal temperature, heat stroke (hyperthermia) is inevitable. A poorly ventilated car parked in the sun, restriction to a concrete run without shade, or confinement to a cat carrier can easily become death-traps for a cat. Short-nosed cats (i.e. Persian), asthmatic cats, or overweight cats are especially prone to heat stroke.

On a hot, summer day if your cat suddenly begins rapid breathing, panting, salivating and/or vomiting, it may indicate that your cat is on the verge of a heat stroke. These signs should be a red flag to you.



### Treatment

You can treat a mild case of heat stroke by immersing the cat in cool water or wrapping it in cool, wet towels to reduce its body temperature. However, if the cat shows signs of weakness or torridness, it should be taken to your veterinarian for treatment. The treatment may consist of administering oxygen (prevents brain damage), fluid therapy (treats dehydration), measures to reduce the body temperature below 103° F, and other supportive care. In very severe cases, blood may ooze from the cat's

nostrils. This is indicative of disseminated intravascular coagulopathy (DIC), a bleeding disorder aggravated by prolonged, excess body heat. Unfortunately, if the cat reaches this stage, response to therapy is poor.

### Prevention

You can prevent your cat from becoming a heat stroke victim. When traveling with your cat always provide adequate ventilation. When parking a vehicle, locate it in a heavily shaded area and keep the windows open; but preferably do not leave cats (or any animal) in a parked vehicle. Always provide plenty of fresh drinking water. Also, long-haired, matted cats will dissipate body heat better if they are clipped for the summer months. Remember, you can tolerate heat better than your cat, so if it is hot for you it is far worse for your cat. ■

## Perspectives On Cats

*A Newsletter for Cat Fanciers  
From The Cornell Feline Health Center*

The ultimate purpose of the Cornell Feline Health Center is to improve the health of cats everywhere, by developing methods to prevent or cure feline diseases, and by providing continuing education to veterinarians and cat owners. All contributions are tax-deductible.

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**Editor:** June E. Tuttle  
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JUL 3 1986

## *Sending Your Cat to Summer Camp*

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For many people *summer* and *vacation* are almost synonymous. Considerable time is spent by people planning for that annual, getaway excursion. However, in most cases, their pet's "vacation" receives little or no thought whatsoever. Generally, pets are not welcomed guests at motels or campgrounds, so alternative arrangements must be made. Boarding your cat or arranging with a neighbor or friend to "cat-sit" during your absence are the most common options. Boarding facilities tend to fill up just as readily as motels, so advanced reservations are recommended.

### **Where to Begin**

Having a responsible and reliable neighbor, friend or relative to care for your cat is oftentimes the best way to care for an elderly cat. As a cat grows older its tolerance for change diminishes. "Cat-sitters" should be informed as to your cat's feeding and watering schedule and instructed on cleaning litterboxes and daily monitoring of your cat's health. Always provide the phone number and address of your veterinarian in case of a medical emergency.

If you decide on a boarding facility, your veterinarian may be able to suggest reputable, local boarding facilities. However, if he/she is unable to, then contact the your cat's breeder or check with other local cat owners for their recommendations. Also, the American Boarding Kennel Association (311 N. Union, Colorado Springs, CO 80909) can provide a list of member kennels that board cats. Once you have a list of possible facilities, you should make an appointment to visit each one before making any boarding arrangements.

### **Visiting the Facility**

When visiting the facility you should be observant of the following:

1. Is there excessive noise from a nearby highway, airport, or from other animals being boarded (i.e. dogs)?

2. Are there any noticeable, offensive odors?
3. Is there adequate ventilation sunlight and climate control? (The best ventilation system is one that draws fresh air through the cage. Usually the vents are located at the back of the cage.)
4. How large are the cages? Is there a problem of overcrowding?
5. Is there an adjacent area provided for supervised exercise? (This is especially important for pets that are boarded for an extended period of time.)
6. Are flies, roaches, or fleas a problem?

You should also ask the manager such pertinent questions as:

1. Does the facility require a current vaccination certificate before they will board your cat?
2. What are the cats fed? If necessary, will they feed special diets? Should you bring the cat's food and water containers with the cat?
3. Will they administer medications if your cat requires it?
4. Are the cats individually housed in cages?
5. How often do they disinfect the kennels?

Your reactions to the facility's environment and the answers you receive from the manager will provide you with a solid basis to make an informed decision.

### **When You Leave Your Cat**

A change in environment, especially being confined to a cage, can be very stressful to a cat. You can lessen the mental trauma for your cat by providing it with a familiar object, such as a toy or bedding. Remember to give the facility manager the name of your veterinarian in case of emergency.

You will have a better summer vacation knowing your cat is being cared for by a reliable "cat sitter" or is at a "summer camp" that meets your personal approval. ■

## Solving House

Dale

*Fluffy's owner is very distraught. It seems that after moving into a new home, Fluffy has forgotten the purpose of a litterbox. The new shag carpet in the livingroom has become Fluffy's new "litterbox".*

This case illustrates one of the most common forms of feline misbehavior -- housesoiling. In a recent survey of cat owners, 24% reported that their cats did not use the litterbox. This is further substantiated by 59 cases presented at Cornell University's Small Animal Clinic from 1979 to 1985. Of these cases, 38 involved spraying or inappropriate urination, 10 involved defecation, and 11 involved both urination and defecation. Interestingly, both sexes were equally represented. However, there were dis-

tinct differences in the sexual representation of the problems presented (figure 1). Under normal circumstances the cat is fastidiously clean in their elimination manners, therefore an underlying cause(s) for such misbehavior must exist.

### Causes of Housesoiling

Feline urologic syndrome (cystitis, urethritis, urethral blockage), commonly referred to as FUS, accounted for a significant number of the cases (figure 2). Symptoms associated with FUS include inappropriate urination and bloody urine. The aversion to the litterbox results from an association with painful urination or as an urgency to urinate.

Territorial marking by urine spraying (depositing urine on vertical surfaces) is common for intact male and female cats. The frequency increases with hormonal changes during the breeding season. However, spraying can also occur with neutered male and female cats. Usually a neutered cat's spraying is associated with conditions of overcrowding and/or aggressive behavior toward other cats.

Moving to a new home, a change in the owner's schedule, or the addition of a new cat, dog or person to the household can cause sufficient change in a cat's normal habits to initiate problems. Although these environmental factors often cannot be altered by the owner, recognizing them can lead to a solution which can compensate for the change. Other factors include placing the litterbox too close to a cat's food and water, since cats do not like to eat in the same area in which they eliminate. Placement of the litterbox in a busy kitchen or in a laundry room may be convenient for the owner, but may encourage a sensitive cat to seek a quieter, less trafficked area. One owner moved her cats' litterbox from the floor to a dresser to prevent her dog from getting into the litter. Subsequently, one of the cats stopped using it.

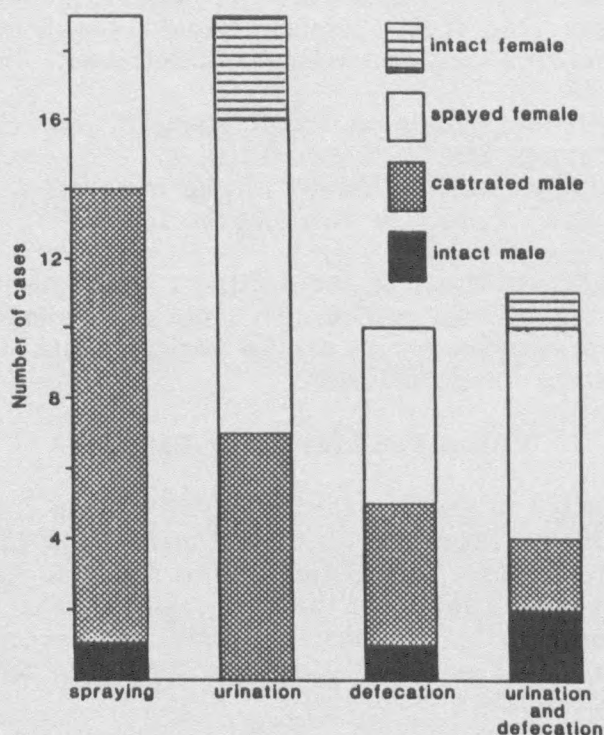


Figure 1. Sex distribution of housesoiling problems presented at the Cornell Small Animal Clinic, 1979-1985.



# iling Problems

Olson, D.V.M.

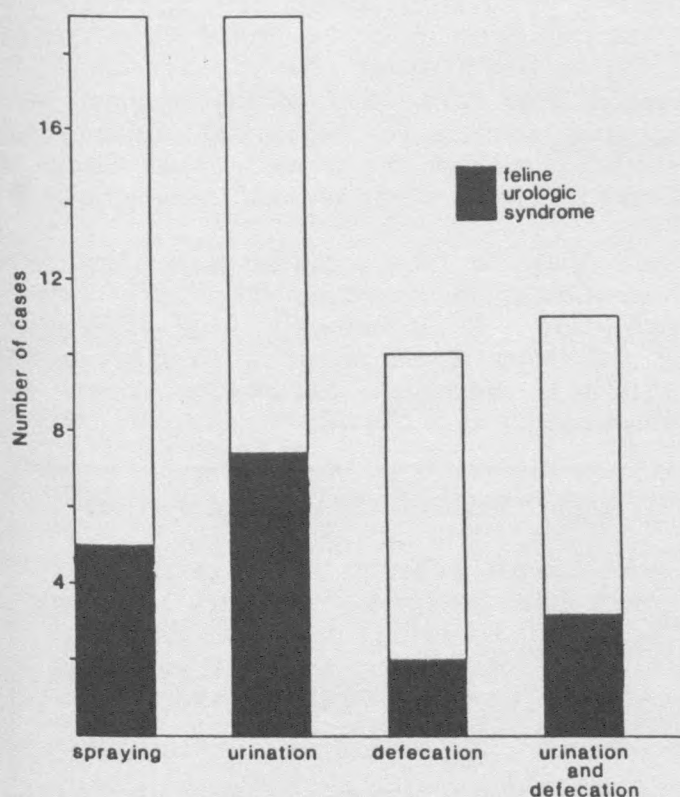


Figure 2. Incidence of FUS in housesoiling problems.

To re-establish consistent use of the litterbox, it should be made as attractive to the cat as possible. Cleanliness and accessibility of the litterbox are essential. The litterbox should be cleaned daily with fresh litter added to replace the soiled litter, particularly where housesoiling problems exist. The entire contents should be replaced at least once or twice a week. When rinsing the litterbox use vinegar or lemon juice to neutralize any remaining urine odor which is offensive to the cat and owner. *Never use cleaning products with ammonia as this will only intensify the urine odor. Also, strong perfumed products may deter the cat from using the litterbox.*

## Litterbox and Litter:

The number of litterboxes should be increased to at least one box per cat, preferably more.

This can be of particular benefit in multi-cat households where a cat may be prevented from using the community litterbox by another cat, or where the cat simply prefers not to eliminate in the same area of another cat. Some owners have observed that their cats will use one box exclusively for defecation and another for urination. Some cats just prefer larger boxes. Others prefer to perch on the edge of the box; a box with a platform built around the outside can make these cats more comfortable when using the box. Therefore, providing different sizes and types (covered and uncovered) of litterboxes in multiple locations can help immensely to eliminate bad habits.

If a change in litter has occurred recently, the owner is encouraged to use the former material. Also, offering several types of material in the different litterboxes, such as sand or soil, alfalfa pellet type, clay type (scented and unscented), sawdust, paper, or corncobs can help bypass aversions to a specific material. If the cat has been eliminating on rugs, placing a small section of carpeting in the litterbox or attached to the rim has been successful for those cats that prefer a material other than the plastic bottom of a litterbox to scratch while making burying movements. Remember, cats are creatures of habit and minor changes can create confusion. Sight, smell, shape, and to some degree, color, are daily stimuli which elicit either a positive or negative response by the cat.

## Retraining:

In cases of overcrowding, owners are encouraged to spend some time alone with the cat. This can include grooming the cat or permitting it to sleep on the owner's lap. This tender loving care or stroking has helped cats which appear to be reacting to too much competition from other cats in the household. Another solution is to decrease number of pets by finding a new home for one or more pets; or by providing greater access to other parts of the house.

Even after the above steps have been taken, some cats require retraining to the litterbox. Confinement to a small room or a cage with a litter box can assist in this process. Cats are strongly inhibited from elimination in confined areas because they do not like to soil their sleeping quarters. When the cat begins to consistently use the litterbox again, it can have access to increasingly larger areas of the house.

Placing the litter box on top of a favorite elimination site and then slowly moving it to a more desirable location has also been used. A different approach has recently been published in which the owner retrained her two cats to use the litter box, similar to housetraining dogs. After feeding, the cats were brought to the litterbox and praised for using it.

The owner is dissuaded from punishing the cat for housesoiling because punishment can cause a negative response. Furthermore, physical and harsh vocal punishment can result in the cat's avoidance of the owner. Occasionally, spraying the cat with water or making a loud noise when the cat is caught in the act of housesoiling has helped to discourage it from using a specific spot. However, this usually results in the cat inappropriately eliminating when the owner is not present. Therefore, other methods are usually more effective.

If the cat is spraying, it is particularly important to try to resolve the initiating causes, such as exposure to unaltered tomcats or to overcrowding. Since a cat first sniffs an area before actually spraying, using a odiferous repellant on the location may avert the cat from spraying the area. However, this may result in the cat finding a new location. Owners are encouraged to castrate tomcats or spay queens that spray, thus reducing their natural inclination to mark their territory. As a final resort, a tranquilizer (Valium<sup>R</sup>) or a synthetic progestin (Ovaban<sup>R</sup>) can be prescribed. Unfortunately, progestins can have potentially serious systemic side effects.

### Summary

The first step to solving inappropriate elimination behavior is careful observation by the owner of the offending cat. Bloody urine usu-

ally indicates FUS which requires the attention of your veterinarian for medical treatment. Environmental factors (e.g., overcrowding, unacceptable litter or litterbox, dirty litter) can result in housesoiling. Physical punishment appears to adversely affect cats, and therefore a reward system should be used when retraining a cat to the litterbox. If you are unable to resolve your cat's housesoiling problem, consultation services for behavioral problems are available through the Small Animal Clinic at Cornell University (see accompanying article). ■

*Dale Olm is a 1986 graduate of the New York State College of Veterinary Medicine at Cornell University. He is currently staff veterinarian at the Henry Bergh Memorial Hospital of the ASPCA in Manhattan, NY and an animal behavior consultant at Cornell.*

### Animal Behavior Consultation Services

The Animal Behavior Clinic at the New York State College of Veterinary Medicine at Cornell University provides consultation services, for a fee, to the Small and Large Animal Clinics in the college and to other referring veterinarians.

The initial interview with the cat owner includes an extensive history of the cat's behavior problem, its environment, training, medical history, as well as information on feeding, sexual, maternal, grooming and social behavior. From this information, and when possible, observation of the cat in its environment, the behavior problem is identified.

Following the initial interview, the problem and possible causes for the behavior are discussed with the owner. Punishment, particularly when administered long after the cat has misbehaved, is discouraged. Recommendations are made verbally to the owner and then reinforced by providing a written copy of the recommendations to the owner and to the referring veterinarian. The owner is encouraged to contact the clinic if further information is desired or if there is a problem with the suggested therapy.



## Honor Roll

The following individuals have contributed \$100 or more to support the Cornell Feline Health Center's work on feline diseases. We are most grateful for their support. We also wish to thank those individuals that have also contributed during the last few months, but who are not listed on the honor roll. We also wish to express our thanks to the following cat clubs. They are very special because they have shown their commitment to promoting better health care for all cats by supporting the Cornell Feline Health Center.

### Name

Mr. and Mrs. Don Blackburn, Texas  
 Mr. and Mrs. Vernon Bonacci, New York  
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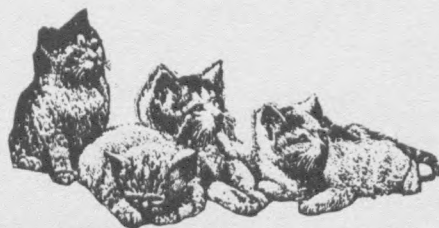
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### CAT CLUBS

Circle City Cat Club, Indiana  
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 Mohawk Valley Cat Fanciers, New York  
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THE CONESTOGA CAT CLUB  
 ESTABLISHED A SPECIAL FUND TO  
 HONOR A UNIQUE SEAL POINT  
 BIRMAN, KUMAR MAO TAL, OWNED  
 BY TAFFY MARTIN. THIS FUND  
 WILL BE USED BY THE FELINE  
 HEALTH CENTER TO DEVELOP  
 TREATMENTS AND VACCINES FOR  
 FELINE INFECTIOUS DISEASES.



Although the Christmas holiday decorations are safely stored until December, we have not forgotten the generosity of the following people who responded to our 1985 Christmas Wishlist. We are extremely grateful for their contributions which provided sufficient funds to purchase much needed equipment and ancillary laboratory supplies.

Candace Fitzwater, Wisconsin  
 Calla Fricke, New York  
 Mr. and Mrs. John J. Goodrich, Pennsylvania  
 Ellen B. Hatch, Maine  
 Paul Heyer, New York  
 Loretta Kuehn, New York  
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## *For the Health of Your Cat Tomorrow . . . Become a Member Today*

IF THIS ISSUE'S MAILING LABEL IS IN RED INK ...

it means that we have not received your membership dues for 1986. We can appreciate how easy it is to forget. We have received numerous memberships since January, however, we need your support to help us continue the fight against important feline diseases.

Membership dues are only \$15. Your dues will be used to help educate others about feline health care and support the vital work of the Center in developing new methods of prevention and treatment for feline diseases. To show our appreciation for your support we will send you:

- ★ a certificate of membership
- ★ a special membership decal
- ★ the quarterly newsletter, *Perspectives on Cats*.

To become a member send your name, address and \$15 check or money order (made payable to the Cornell Feline Health Center) to:

**Membership  
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College of Veterinary Medicine  
Ithaca, NY 14853**

*(If you recently sent in your membership dues, please disregard this reminder notice.)*



Have a friend or relative that loves cats? Consider giving a gift membership. Include the complete address of the person who is to receive the gift membership and indicate that you are giving the membership. We will send a special acknowledgement letter to the recipient of your gift.



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