

MARKING SCENTS OF BELONGING

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DAVID SANDS discusses spray marking in domestic cats and offers advice on how to counter this behaviour when it becomes a problem around the home

IT is known that the ancient Egyptians worshipped cats and mummified them in death. In sharp contrast, huge numbers were burned in the 15th century because Pope Gregory IX declared all black cats had a direct link with the devil, and during the 17th century even more were killed after being erroneously associated as plague carriers.

These days, domesticated cats have a much easier life and have never been more abundant, with estimated numbers exceeding that of the domesticated dog by at least 25 per cent.

In the UK, cat numbers have continued to increase over the past decade, and they are now the number-one companion pet in terms of population. The independent nature of felines means owners who are out during the day need not worry about them. Cats require minimum supervision, but often become part of the rescue statistics simply by wandering off, when kittens are abandoned or when a litter is discovered with the mother busy elsewhere. Success means a quarter of the UK's estimated 8,000,000 cats and kittens are taken into rescue and held for adoption during their lifetime.

Popularity

So why are cats so incredibly popular as companion animals? *Felis catus* could not be more different from the dog in terms of behaviour, despite sharing a common ancestor millions of years ago. Cats live a solitary life as territorial predators – rarely coming together in nature other than to

mate or compete over sex, food and territory.

Dog and wolf cousins, by comparison, have evolved a pack structure to hunt as a social unit. Some notable exceptions to the rules are large felines, such as female lions or cheetahs, which will hunt in groups, and foxes or coyotes are examples of canines that hunt alone. By hunting together, groups can attack larger prey, whereas small to medium-sized wild, feral and domesticated cats are able only to prey on small mammals.

Domesticated cats are, genetically, only a whisker away from their wild cousins, and many food-contented cats still have a need to hunt “trophy” prey. Dogs, however, have been adapted to channel their hunting and foraging instincts into energies for urban and rural walks.

Groups of feral cats do occur when food is not a plentiful resource and people are actively feeding them; this is often seen in holiday destinations. In this situation, it is difficult for one cat to focus its competitive attentions on to another.

The fundamental differences explain why dogs, rather than cats, are described as man’s best friend. Man and dog – both being social animals – have adapted to each other. In another sharp contrast, cats have a historically strong connection with females, not simply because they were once known as a familiar for witches, but because they appear to interact in a way considered as unconditional love.

Nothing could be further from the truth. Cats could be described as odour-marking machines in that they have scent glands – from head to toe. Almost all the cat’s contact behaviour with people involves using scent to confirm ownership. Most owners prefer to believe their purring cat is displaying affection as it slides against a leg or brushes its head forcefully against them. In this situation, the cat is using its scent glands situated throughout the head, paws and body to mark targets, including people and territory boundaries. Scratching is included in marking behaviour because of the scent glands situated within the paws.

Tom the territorial

Cats perceive two distinct territories: home and the outside world. The second comprises potential threats from other cats and some delights (prey). If the outer territory holds a trauma association, because of aggression, then a cat will retreat into the inner territory of the home and attempt to make that secure by scent marking.

Generally, a neutered cat will rarely stray beyond the local houses and streets. Entire cats, especially toms, require a greater territorial range that may be 10 to 20 times further than a contented house cat. The distance a cat travels away from its inner home territory is also influenced by the density of the local cat population. In urban areas, where cat populations are highest, a wandering or exploring cat may remain within a few streets. In this scenario, a great deal

of cat behaviour is dominated by positioning itself stationary, watching the world at dusk, or by monitoring competitors or potential prey as they come into view. In rural areas, a cat may have to wander across fields to see feline-related action.

Most of a cat's brain is wired for basic territory maps, which are built up with scent analysis and through powerful predator and prey associations. Cats cannot think "I am a cat and owners are humans". A female owner, for example, is highly likely to be viewed by cats of either sex as a replacement litter mother. To a tom, a male owner is likely to be seen as potential competitor and to a queen, a non-aggressor.

Why get off the mark?

Although spraying behaviour is usually associated with entire tom cats, it is not exclusive to them. Both neutered and entire cats are known to display this behaviour when competition occurs for a known territory or resource and feline ownership is challenged.

Anecdotal evidence suggests that when cats display antisocial behaviours in the home, such as spraying, urinating or aggression, they may be deliberately turned away by their owners. Cats become antisocial, and a natural behaviour escalates from scentmarking into urine spraying when they feed the drive to make a definite territorial message to secure the home.

However, cats defecating or spraying in the home are not simply inappropriately toileting. Felines like to leave behind information or scent signals for each other. In nature, such messages are intended to offer and discover information about other cats that may be invading or crossing an existing territory. Scent messages mark territorial boundaries and offer gender information through testosterone or oestrogen.

Fresh, foreign scents made by other cats and other animals may cause alarm, while old scents can be ignored or over-marked.

Top marks

When a cat begins to spray indoors it is to make a perceived home territory secure. Practitioners use this behaviour as a sign of feline territorial insecurity. An additional issue is that scentmarking behaviour provides a cat with temporary relief through the production of the "reward" hormone serotonin. This offers a cat momentary release from stress resulting from any emotional problems, such as continuing competition with another cat. The production of serotonin has a temporary effect because the hormone is quickly reabsorbed into the brain. The progression of the condition means a spraying cat obtains a regular "fix" and, as with most addictions, it is a self-reinforcing cycle.

Scent-marking behaviour in the home usually occurs when clients have succumbed to what I have

named the ark syndrome. This is where companion animals are thought to be correctly cared for by being kept in the biblical number. The common perception is that two cats will strike up a relationship and keep each other company. It is this myth that is often the start of much antisocial behaviour in domesticated cats.

My statistics, and those of my colleagues, support the theory that owning two or more cats increases the chance of feline behavioural problems occurring in the home. It would appear that a single cat is much less likely to spray in the home, whereas according to the majority of cases, two or more maintained together are more likely to spray.

Pairs of cats will usually compete with each other for human contact (possession of owners) and over a food source in the home territory. This observation applies even to sibling kittens once sexual maturity arrives. Case histories have revealed it is possible to own a single cat that displays antisocial behaviour, but issues are usually linked to a feline-to-human feline-attachment disorder or disrupted socialisation during the early litter stage.

I explain to clients in these terms how introducing another cat into their home that already houses a cat can cause issues: they have brought a stranger into the home, and it is impossible to discuss the introduction with the existing cat. In human terms, this is not dissimilar to a stranger entering their living room unannounced, taking up a space on the sofa, switching the television channel and demanding food.

Of course, other major influences for feline antisocial behaviour exist in the home. Especially relevant would be a lack of early socialisation, or if the cat was the product of feral mating. It is also known that the introduction of other feral or dominant cats into a neighbourhood can cause an emotional upheaval.

Moving house, intrusive surgery, hormonal changes and variations in the social situation of owners – such as partner loss, illness, family or partners moving in or out, and the introduction of human babies – can also have a significant effect on feline behaviour. All these factors can complicate the emotional life of our domestic cats.

Countering feline scent-marking

Artificial pheromone plug-ins and aerosol spray products on the market are said to deflect marking behaviour in cats. In my experience, these merely direct the cat to find an alternative area. It is widely known among behaviour practitioners that it is not advisable for clients to clean a marked area within visual contact of a scent-marking cat. This is because a cat might perceive this action as over-marking.

I have found that clients have increased success when using a biological cleaner rather than a strong disinfectant. It may be that the less-powerful odour from a biological cleaner reduces a cat's

desire to over-mark in the chosen area.

One significant aspect of clinical treatment is to offer a scent-marking cat an alternative for its need to mark the territory. This can be achieved by installing several indoor tall scratching posts in the home. Most scratching posts sold in pet stores are far too short – an ideal scratching post should be at least one metre high.

Visual and olfaction information is given by cats when displaying scratch-marking behaviour. Research has strongly indicated a cat needs to fully stretch out its body length when scratching a vertical surface for it to be fully satisfied that it has successfully left its territorial mark. It is advisable to place tall scratching posts in, or close to, a prominent area where scent-marking has taken place. In some cases, posts should be established in an experimental room of reduced area.

A cat's interest in a post can be reinforced by spraying them liberally with catnip and initially placing special food treats on or near to the base. Cats respond positively to the availability of indoor scratching posts and, in the case of cats restricted to indoors, a covered litter tray should also be installed nearest to the area where most indoor marking has occurred.

It is usually necessary to reduce (or control) the handling of a cat or cats to encourage them to be more independent. This will also prevent an owner from inadvertently marking cats with their scent, thus promoting competition between them for attention or from reinforcing any feline insecurity.

The human benefit to stroking and petting cats is significantly greater than it is to cats. In my clinical case notes it is not unusual to find a comment that owners find it difficult to reduce physical contact with their cats. This is despite explaining to them that controlling physical and emotional interaction will help prevent continual or increased competition.

The way to a cat's heart is through its stomach

Research has indicated that feral and wild cats spend at least 40-50 per cent of their time hunting, stalking and foraging. In contrast, domesticated cats often obtain food easily. One method to counter food boredom is for the owner to play a game by partially hiding special food to encourage the cat to use its natural hunting skills. Daily food rations can be offered at various times in small portions, divided inside fairy cake paper cases or wrapped up in rice paper and signalled with a clicker to announce a kill is being offered. This will help the owner reproduce a mother cat role and should encourage the cat to feel well cared for, protected and safe from competition. However, if problem behaviours are persistent and involve continual marking or aggression, it is always advisable to refer a client to a specialised feline behaviourist.

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References and further reading

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