

Animal welfare provisions in cattery: an observational study



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Abstract The present study had the objective of proposing adaptations for a permanent housing environment for neutered cats. Priorities and management practices were characterized by better animals health and quality of life. An animal observation survey was carried out on two different types of catteries: A, where the animals had an environment with greater freedom of movement, and cattery B, with animals with a reduced environment. The problems encountered in each were observed, such as sanitary, nutritional, and especially environmental management. Behavior was taken into account, according to the environment experienced by domestic cats castrated in confinement in the two different types of catteries. Based on the frequency and behavioral sequence of the groups analyzed, it was concluded that the environment of the cattery A promoted greater well-being of the animals.

Keywords: animal, behavior, feline, well-being

1. Introduction

Combining charm with utility, the cat is no longer just a companion animal or an irreducible rat hunter. The cat's enigmatic personality makes it an enthralling object of study that always surprises its observers. The knowledge of their physiology, their dietary needs, their customs and their psychology never cease to enrich, for the greatest pleasure of those who love them and those who discover them to become attached definitively (Rousselet-Blanc 2005).

An animal's well-being concerns its attempts to adapt to its environment. The degree of well-being can be high or low; however, in both cases, in addition to direct checks on the animal's condition, attempts should be made to measure the feelings inherent to its physical and behavioral condition (Broom and Molento 2004).

Well-being must be defined in a way that allows a ready relationship with other concepts, such as: needs, freedoms, happiness, adaptation, control, ability to predict, feelings, suffering, pain, anxiety, fear, boredom, stress and health (Broom and Molento 2004).

To survey the conditions of an animal kept in captivity and its real needs for improvement, both behavioral observations and physiological indications can be used. In the physiological approach, records are taken such as the levels of certain steroids in the blood or stool, which are associated with stress (since they are secreted in situations involving physical injury or the need to deal with environmental challenges) (Vasconcellos 2005).

Studies involving cats in shelters or catteries predominantly focused on various environmental and social aspects. These studies have shown that the environment can significantly impact on a cat's stress level, and that unpredictable environments increase the animal's stress. In contrast, constantly enriched environments help reduce stress. Stress can affect the immune system, creating a situation that increases the animal's susceptibility to disease (Dybdall et al 2007).

Behavior is one of the most important properties of animal life. It has a fundamental role in the adaptations of biological functions, and represents the part of an organism through which it interacts with the environment. An animal's beauty includes its behavioral attributes (Sowdon 1999). In this way, the appropriate enclosure must make the feline interact with the environment in which it lives to preserve its natural behaviors.

The felines have their social relationship, in free life, of short duration. Usually the groups, formed are of females or females with their young. Males are only seen close to these groups during the reproductive period (Crowell-Davis et al 1997 cited by Souza 2007; Beaver 2005) and castration (Mertens and Schar 1988 cited by Oliveira 2002).

Some factors are particularly valuable in researching behavioral differences between animals, age, sex, reproduction, personality, experience, learning, and castration (Mertens and Schar 1988 cited by Oliveira 2002). The latter greatly influences



the modification of cats' lives, since it can affect their spatial, social (Mertens and Schar 1988 cited by Oliveira 2002) and sexual behavior (Hart and Eckstein 1997 cited by Oliveira 2002).

Cats spend up to 19 hours a day sleeping, so the cat's environment must meet basic maintenance needs. The environment allows and encourages the cat to behave close to natural and offers good opportunities for interaction with other cats (Jongman 2007). The present research emerged from a visit to two catteries, and from the observation of the conformation of each of them, and the problems related to environmental management, and animal welfare. These problems caught our attention the most, leading us to think more carefully about how to try to solve them, and how to make the environment more conducive to a greater degree of well-being for animals.

The objective of the research was to study the animal welfare measures provided in the different types of catteries and to suggest measures to address the problems by carrying out observations of the confined animals.

2. Materials and Methods

The study was conducted in two different catteries: cattery A (Figure 1), where the animals had an environment with greater freedom of movement and cattery B (Figure 2), with a more reduced environment (restricted).



Figure 1 Cattery A.



Figure 2 Cattery B.

The research was carried out using an exploratory method in addition to highlighting the reality experienced in catteries (cattery A and cattery B), their dimensions, the animals' environment, and other related factors. Twenty visits with 5 hours of observation time were made to each cattery.

3. Results

The two catteries used to carry out the work were located in the city of Piracicaba, SP, Brazil, in a residential neighborhood of farms, both on the same street, approximately 5,000 meters away from each other, with different owners as responsible.

Cattery A had a larger free area of 2000 square meters for cats to move around with no spaces confined by screens. It was surrounded by masonry walls, with a large green area of grass and trees. It had sheds that served as shelters/dorms. This cattery contained approximately 200 animals, all castrated.

Cattery B, with a smaller free area of 160 square meters, housing 40 castrated animals, is insufficient for the free movement of animals. It consisted of shelves used as dormitories, a place for defecation, an isolated area within the confinement to separate some animals in case of a fight, or an area of 8 meters wide and 20 meters long.. This one was fenced in with mesh, and had animals that requiring treatments. Part of the enclosure was covered with tiles, but it was open and vulnerable to wind and rain.

Both had plastic feeders and drinkers, which facilitated cleaning. They had cardboard boxes scattered around the enclosures to serve as a dormitory or refuge for some cats and a toy for others.

During visits while observing the formation of groups, there were those cats that circulated among all without any problem, those that were not part of any group, and those that were isolated. Young animals sought to interact more with the environment, than older animals. However, in the cattery, where young and older animals had a greater free area to explore, there was greater interaction with the environment to which they were confined.

In the cattery, where space was more limited, some abnormal reactions were observed in the behavior of some cats, such as, excessive meowing and aggression.

Regarding the places for shelter, the outdoor cattery had better resources, as it had already shed in the confinement where the animals were exposed to climate changes, even having an area covered with tiles, but open on the sides was not ideal for the confinement of cats. Considering the works consulted on the subject and ours, all are unanimous in affirming that the open-air cattery had the best conditions for housing animals.

4. Discussion

Considering the evaluations carried out in the two catteries, cattery A was the closest to an ideal cattery. This is because the structure maintained was adequate, so that the animals were protected from injury and unable to escape, is also restricted to other animals' access. Feed and bedding were apparently protected from infestation by worms, insects, vermin, fungi and moisture, and above all due to easy and efficient cleaning and waste disposal, to minimize parasite infestation, odors and moisture. This agrees with Pedersen (1991), who stated that interior surfaces should be constructed with materials and structures impervious to moisture and easy to clean.

The interior protected the cats from inclement weather and climate change, promoting health and comfort maintenance, and providing fresh air and adequate ventilation through windows and doors to minimize odors and moisture.

The lighting supply was evenly distributed and its intensity was appropriate. Boxes were placed to allow the felines to hide or have some privacy and security for some situations like the need for the natural expression of behavior. Covered areas must be constructed and maintained to keep animals dry and clean, and provide convenient access to food and clean water. Trays containing sanitary substrate must be sufficient to contain excreta.

Outside, shelters should provide enough shade to allow cats to protect themselves from direct sunlight and to remain dry during the rain. According to Pedersen (1991), the exterior part has to be half to two-thirds of the unit and contain an area large enough to house all the animals, with structures to sit, rest or feel in a comfortable way and to go and come freely. The bedding must be clean enough and other means of supplementary protection when the temperature drops. The shelter must be provided from cold and heat, from wind and rain; clean, dry bedding, and a separate outside shade area large enough to shelter all the animals from the sun and protect them from the sun's rays. At least one shelf for each animal must be attached at various heights to the walls of each of the interior and exterior parts.

5. Conclusions

For a cattery to be considered ideal, it must be planned to provide for the physical, mental, and natural needs and comply with the relevant, sanitary and environmental legislation. Besides, it must have a platform with thermally insulating material, easy to clean and hygienic. Food and water must be of good quality and sufficient in quantity. Porting cattery A was the one that presented the best conditions for the confinement of the felines.

Ethical Considerations

It is not necessary because it was only a comparison study of the catteries.

Conflict of Interest

There was no conflict of interest

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References

- Beaver BV (2005) Feline behavior: a guide for veterinarians. 2nd edition Rock. Sao Paulo, 372p.
- Broom DM, Molento CFM (2004) Animal welfare: concept and related issues. Archives of Veterinary Science 9:1-11.
- Dybdall K, Strasser R, Katz T (2007) Behavioral differences between owner surrender and stray domestic cats after entering an animal shelter. Applied Animal Behaviour Science 104:85–94.
- Jongman EC (2007) Adaptation of domestic cats to confinement. Journal of Veterinary Behavior 2:375-386.
- Oliveira APF (2002) Social behavior of castrated males and females of the domestic cat (*Felis catus* L.) in confinement, 2002. 85p. Dissertation (Master of Science in Psychobiology) Faculty of Philosophy, Sciences and Letters of Ribeirão Preto – USP.
- Pedersen NC, Pratt PW (1991) Feline Husbandry Diseases and Management in the Multiple Cat Environment. Edition: illustrated Published by American Veterinary Publications, Copyrighted, 459p.
- Rousselet-Blanc P (2005) Larousse of cats: bahavior, care, breeds. Larousse do Brazil, São Paulo, 356p.
- Souza JOT (2007) Behavior of Domestic Cats (*Felis catus* – Linnaeus, 1758): Orchiectomy and Development. 2007. 78p. Dissertation (Master in Biological Sciences, Area of Concentration in Animal Behavior and Biology). Juiz de Fora, Minas Gerais.
- Sowdon CT (1999) The meaning of behavioral research. Animal Psychology Study 4:365-373.
- Vasconcellos AS (2005) Environmental enrichment and well-being. Dissertation (Master in Experimental Psychology) – Institute of Psychology, University of São Paulo, 86p.