

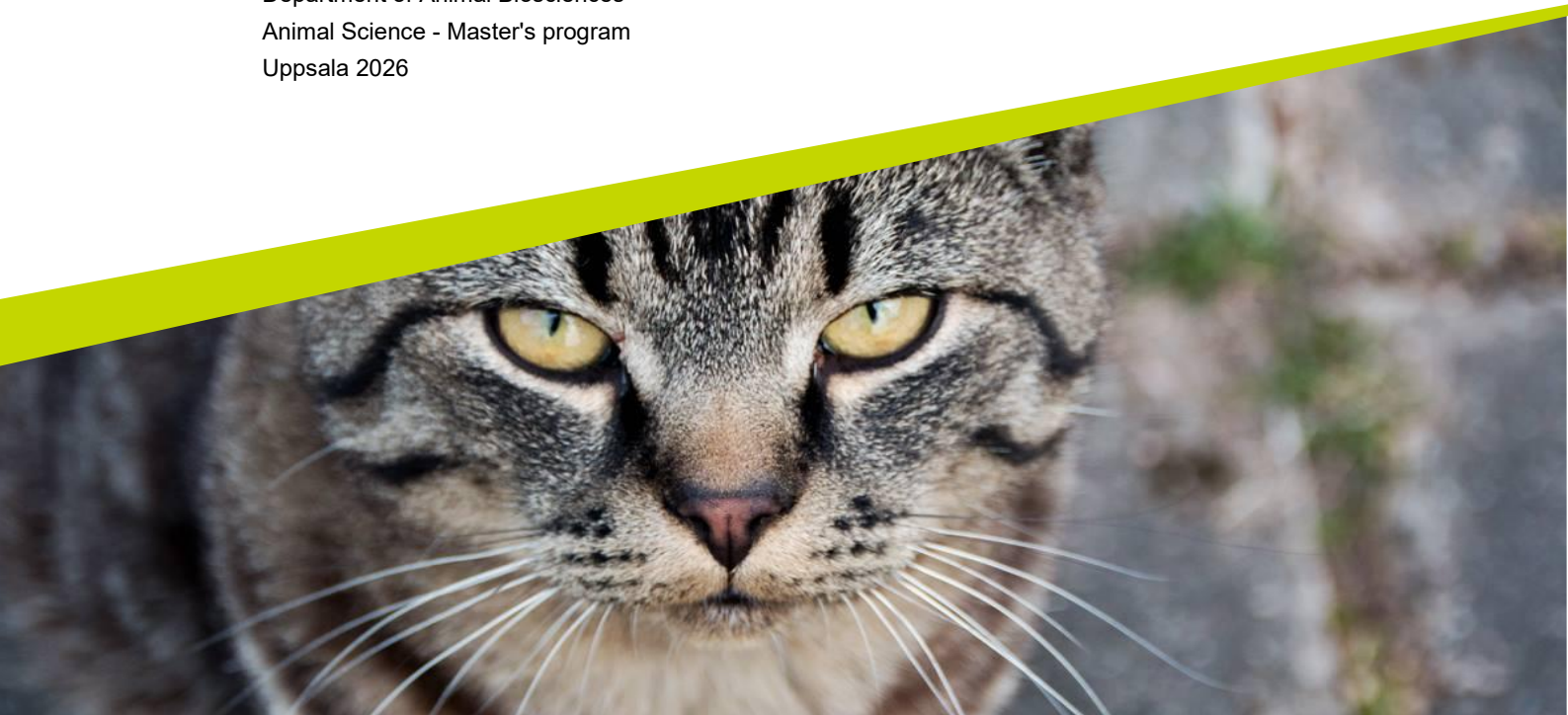


In the Service of the Cat

An assessment of information provided to new cat owners by cat shelters and rehoming organizations

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In the Service of the cat. An assessment of information provided to new cat owners by cat shelters and rehoming organizations

I kattens tjänst. En utvärdering av information försedd till nya kattägare av katthem och omplaceringsorganisationer.

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Abstract

Cats have complex behavioral, environmental, and physiological needs, and adequate knowledge is important for ensuring good welfare and a positive cat-owner relationship. However, there is limited knowledge regarding what information is provided to prospective cat owners by shelters and rehoming organizations. The aim of this study was to examine the availability, content, and scientific alignment of information provided by Swedish cat shelters and rehoming organizations. Publicly available information from organizations' websites (n = 104) and Facebook profiles (n = 21) was analyzed, together with additional written material (n = 34) provided by the organizations. Information was coded across predefined categories and assessed in terms of information depth, scientific alignment, and legal alignment. The results showed that information was unevenly distributed across categories, with a focus on medical and regulatory aspects, while behavioral and environmental needs were less frequently addressed and presented with lower depth. A significant association was found between information depth and scientific alignment, indicating that more detailed information was more likely to reflect current scientific knowledge. The use of source citations was limited, which may reduce transparency and make it more difficult for prospective cat owners to assess the reliability of the information provided. In conclusion, while the information provided generally meets basic expectations, current regulations do not specify what information should be communicated to prospective cat owners, and the information remains limited in scope and depth. Improving the depth, distribution, and transparency of information may support more comprehensive, consistent, and scientifically grounded guidance and improved welfare outcomes for cats.

Keywords: Feline welfare, Cat shelters, Behavioral needs, Rehoming organizations

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1. Introduction

Cats are the most common companion animal species in Sweden (Novus 2024). Purchasing a cat should be a thought-through decision as cats can live for over 20 years and require substantial knowledge of feline behavioral needs and correct management (Grigg & Kogan 2019). To ensure good welfare for the cat and a good cat-owner relationship, current and appropriate knowledge about cats' behavioral needs, management and the importance of veterinary care is essential (Grigg & Kogan 2019).

A study by Patronek et al. (1996) has shown that misunderstanding or knowledge gaps concerning the owner's expectation of the cat is a common cause behind relinquishment of cats to cat shelters. Likewise, insufficient knowledge about a cat's behavior, needs and management has been proven to lead to suppression of the cat's natural behavior (Gazzano et al. 2015). Suppression of natural behaviors can lead to behavioral issues and stress, instigating behaviors that cause conflict in the cat-owner relationship, increasing the risk of abandonment or rehoming of the cats (Casey et al. 2009, Gazzano et al. 2015).

Based on current scientific research, cats have a range of behavioral, environmental, and physical needs that are essential for their health and wellbeing and must be considered in their care and management to ensure good welfare (Ellis et al. 2013). These needs influence the cat-owner relationship, and when not adequately met, may lead to behaviors perceived as problematic by owners (Da Graça Pereira et al. 2014), such as out-of-box elimination (Ellis et al. 2017), aggression, and incompatibility with other pets (Casey et al. 2009). Among these, behavioral and environmental needs are particularly essential and form a basis for understanding feline welfare.

1.1 Behavioral and environmental needs

Behavioral needs are strongly motivated behaviors in animals that put specific demands on the animal's environment. The possibility to perform these behaviors is crucial to the animal's welfare, in addition these behaviors will be performed even in the absence of an appropriate environment or stimulus (Jensen & Pedersen 2008).

A cat's environmental needs are intrinsically linked to its behavioral needs, having a suitable environment that is adjusted to the cat's behavioral needs, is fundamental for the cat's wellbeing (Ellis et al. 2013). There are several elements that need to be addressed in the cat's environment to be able to fulfil environmental and behavioral needs, the most prominent being: social environment, safe spaces, food, water, and toilet areas, scratching opportunities and play and predatory opportunities (Rochlitz 2005, Ellis et al. 2013). These needs are further supported

by the Swedish Board of Agriculture's regulations and general advice (SJVFS 2020:8) on the keeping of dogs and cats, case no. L102, chap. 2, section 6, hereafter referred to as L102.

Most wild cats are solitary beings, indicating a solitary heritage for the domesticated cat (Yamane et al. 1997). Unlike many other domesticated species, such as dogs or livestock, cats were not actively domesticated through selective breeding for specific human purposes. Instead, their association with humans is thought to have originated as a commensal relationship, in which early wildcats were attracted to human settlements due to the presence of rodent pests infesting stored grain. Over time, this mutualistic interaction facilitated a gradual process of domestication, rather than a directed or controlled one (Driscoll et al. 2007).

When it comes to social environmental needs for cats today it gets more complex as cats living in a house have less control over their social interactions and possibilities to avoid each other in multi-cat households (Rochlitz 2005). Multi-cat households are feasible if the cats are well socialized towards other cats, have sufficient space for each cat and multiple places to eat, drink, eliminate, hide and sleep (Rochlitz 2005, Ellis et al. 2013).

Providing safe spaces for cats to both rest and hide in is an essential part of their environmental needs. Cats spend a great part of their day resting, preferably alone, which further emphasizes the need for multiple safe spaces with soft materials that enable sleep (Rochlitz 2005). Providing multiple safe spaces, preferably two or more per cat (Rochlitz 2005) is important to minimize the risk of aggression in a multi-cat household as several safe spaces limit resource competition, contributing to a well-adapted environment (Overall et al. 2005). Hiding is a coping behavior in cats, meaning that cats that experience stressful situations use hiding to avoid interactions with con-specifics, other animals and humans, and thus providing safe spaces, especially for hiding, is vital for the cats' wellbeing (Ellis et al. 2013).

The human-cat relationship is also part of the social environment for cats; it has been shown that early socialization between the second and seventh week of life for the kitten gives optimal possibilities for social attachments in the adult cat (Rochlitz 2005, Turner 2017). In addition, cats are often selective when choosing their affiliates, frequently choosing familiar humans as well as cats they are related to, indicating comfort in familiarity created early in life (Rochlitz 2005, Ellis et al. 2013).

Domesticated cats demonstrate feeding patterns that are consistent with their natural hunting behavior (Delgado & Dantas 2020), preferring up to 20 small meals distributed throughout the day (Overall et al. 2005). Cats feeding patterns may vary depending on food availability and management with many cats being either free-fed or fed scheduled meals. These variations can influence behavior, as more restrictive feeding has been associated with increased aggression compared to libitum feeding (Delgado & Dantas 2020). To minimize stress, especially in multi-

cat households, numerous feeding areas should be provided, enabling the cats to eat frequent meals alone (Sadek et al. 2018). Water access should also be provided in multiple places in the households, if possible, in a separate location than the food, to give each cat a chance to drink alone and not only when connected to feeding (Overall et al. 2005, Gazzano et al 2015, Sadek et al. 2018). Furthermore, many cats prefer to drink water from a dripping tap or a small water fountain, which in addition to regular water bowl can invite the cats to drink more (Rochlitz 2005). Toilet areas should be placed in secluded, calm areas far away from food and water (Sadek et al. 2018), preferably at least two litter boxes per cat in the household placed in various parts of the home giving each cat a choice of where to go (Ellis et al. 2013). In addition, litter boxes should be 1.5 times the length of the cat to enable full elimination, and it has been shown that cats spend more time in bigger litterboxes, indicating better elimination (Overall et al. 2005).

To give the cat scratching opportunities can be seen as an essential part in the cat's environment as scratching causes scent marking from the inter-digital glands in the paws, as well as maintaining proper claw condition (Rochlitz 2005, Overall et al. 2005). Most cats prefer vertical scratching posts, sturdy and long enough for the cat to properly stretch out their whole body, if possible, in multiple locations (Overall et al. 2005). Providing scratching opportunities can also contribute to a better cat-human relationship, minimizing the cat's need for scratching furniture and/or spraying urine as scent marking in the absence of a scratching pole (Rochlitz 2005).

Play and predatory opportunities stem from the cat's strong instinct to hunt, cats are highly motivated to perform predatory behavior that include locating, capturing, killing, preparing, and eating its prey (Ellis et al. 2013, Sadek et al. 2018). Hunting behavior will occur in cats even though they are well fed and have access to food, which shows a strong motivation for the behavior, making the opportunity to perform it an essential aspect of the cat's health and wellbeing. Inhibiting this behavior can lead to stress and symptoms like obesity, frustration, overgrooming, and aggressive behavior (Overall et al. 2005, Ellis et al. 2013). Hunting behavior can be engaged through providing toys, play-based interactions with the owner, feeding devices such as puzzles, and playing with other cats in the households (Overall et al. 2005, Ellis et al. 2013, Strickler & Shull 2014, Sadek et al. 2018). Enabling play and predatory behavior can be seen as enrichment in the cat's environment by providing environmental complexity and offering opportunities to fulfill a highly motivated behavior even in an indoor environment (Strickler & Shull 2014).

1.2 Diet and nutrition

Cats have unique nutritional and dietary requirements; these requirements define cats as obligate carnivores, which means that cats have evolved to eat a pray-

based diet that include nutrients found naturally in animal tissues (Laflamme 2020). Dietary and nutritional needs differ in cats depending on age, health and living situation (Laflamme & Gunn-Moore 2014), putting great emphasis on owner knowledge regarding their cats' nutritional needs at different life stages.

Cats require a nutritionally balanced diet to meet their physiological needs, with high proportion of proteins and specific essential nutrients (Laflamme 2020). As obligate carnivores, they depend on nutrients such as taurine, arachidonic acid, and vitamin A, which must be provided through the diet (Verbrugghe & Bakovic 2013, Kremen et al. 2013). Lack of these essential nutrients can, amongst others, lead to dry lusterless hair, dermatological issues, fatty liver and compromised immune function (Shastak & Pelletier 2024, Trevizan et al. 2012). Commercial cat foods vary in composition, particularly between wet and dry food, which may influence nutritional intake (Laflamme 2020, Plantinga et al. 2011). Adequate knowledge of feline nutrition requirements is therefore important to ensure appropriate feeding and to support overall health and wellbeing.

1.3 Daily care and management

Cats require good husbandry routines, which include management of litterboxes, grooming, safe handling and management of food and water (Ellis et al. 2013). Cats kept indoors often have a predictable and unchanging environment, something that could result in stress and inactivity if a cat's needs are not addressed properly (Strickler & Shull 2014). That being said, it is important to note that cats having outdoor access do not compensate for an insufficiently adapted home environment, as this could still cause stress in the cat (Rochlitz 2005).

Litterboxes should have a sufficient amount of litter that enables the cat to rake and dig (Ellis et al. 2013), type of litter may depend on cat preferences, and it might be necessary to provide a range of different litter types and designs of litter trays to find the optimal one (Rochlitz 2005). Litter boxes need to be regularly cleaned at least once a day and refilled when necessary (Rochlitz 2005), minimizing stress and risk of wrongful elimination (Overall et al. 2005).

Depending on breed, cats require grooming, but even cats with shorter fur can enjoy grooming sessions. Grooming can help minimize stress in both cats and humans, as well as tending to the coat health of the cat (Overall et al. 2005, Rochlitz 2005). Some cats in multi-cat households also enjoy allogrooming, where the cats groom each other, often as a sign of contentment and bonding (Ellis et al. 2013).

Handling cats in a safe way is important, according to Ellis et al. (2013) cats prefer being petted on the cheek, chin, and head, as these facial regions are used in both tactile and scent affiliative communication and have been shown to be the areas that produce the most positive responses to human contact. Kittens are especially receptive to positive handling experiences as this can reduce future stress, minimize fear, and enable better coping mechanisms (Ellis et al. 2013). Cats,

especially young ones, should be handled frequently, with a pleasant and gentle hand and it can advantageously include checking ears, brushing teeth, if necessary, clipping claws and in addition, rewarding the cat for cooperation can further the positive experience (Overall et al. 2005). Safe handling is also a great way to practice for future veterinary visits, helping the cat to feel safe when handled and enabling better welfare for the cats (Overall et al. 2005, Ellis et al. 2013).

Food and water access should be adjusted to the number of cats in the household, with a minimum of one food bowl and one water bowl/fountain per cat (Ellis et al. 2013, Sadek et al. 2018). Another important aspect is age of the cats as elderly cats require more easily accessible food and water, including raised food and water bowls, still separate from each other (Laflamme & Gunn-Moore 2014). Water in bowls should be replaced at least once a day and food refilled/replaced according to the cat's dietary and nutritional needs (Rochlitz 2005, Overall et al. 2005).

1.4 Veterinary care for the cat's welfare

Owning and caring for a cat is both steered by regulations and recommendations. In the Swedish act on the Supervision of Dogs and Cats (2007:1150) it is stated that cats need to be ID-marked to assure proper identification in a way that is durable over time. In addition, owners are required by law to register their cats in the official registry run by the Swedish Board of Agriculture.

For cats, primary vaccination programs are important to uphold a defense against several diseases. There are three vaccinations that count into the core vaccines for cats, vaccination against: Feline Parvovirus (FPV), Feline Calicivirus (FCV) and Feline Herpesvirus-1 (FHV-1) (Windahl & Ingman 2009). All vaccinations are to be done by licensed animal health personnel. For cats in risk groups, or cats that have been exposed to infection there are recommendations to give vaccinations against Feline Leukemia Virus (FeLV) and Feline Immunodeficiency Virus (FIV) (Andersson et al. 2025).

If the cat is to be kept free roaming outdoors, it is up to the owner to make sure that the cat does not reproduce unplanned, unwished or at an excessive pace. This is regulated in L102, chap. 6, section 2, where it is stated that cats roaming freely outside should be castrated, sterilized or in other ways hindered to procreate in an uncontrolled manner.

Early veterinary visits and positive handling of kittens can enable positive experiences for kittens, making veterinary visits a pleasant experience that promotes positive behaviors for the cat in the future (Gazzano et al. 2005). Moreover, regular veterinary visits can keep obesity problems in line, minimize stress when doing necessary procedures and handling, promote fewer behavioral

problems and encourage good cat health and welfare (Overall et al. 2005, Ellis et al. 2013).

1.5 Environmental adjustment during rehoming

Ensuring a stable and safe transition from the shelter to the cats' new home is a crucial part of the acclimatization for both cat and owner. Most failed adoptions take place within two weeks, in which the cats are returned to the shelter (Stella & Croney 2016). Cats are individuals, and it has been shown that some cats acclimate easier to new environments than others, some cats find the transition more stressful and that a few in fact never acclimatize at all (Kessler & Turner 1997). For rehoming, the greatest period of risk seems to be when the cat is acclimatizing to the new home environment, which indicates that the transition from shelter to home needs clear directives on how to support the cats to fully adapt to the new home (Stella & Croney 2016).

Safeguarding a good transition begins with seeing to the cats' individual needs, it has been shown in a study by Ellis et al. (2025) that poorly socialized cats may experience ongoing fear, have limited positive interactions and develop chronic stress during the rehoming procedure. The study further suggests that a regular home environment might not be enough to support highly unsocialized cats, addressing the serious issue that these cats might learn to tolerate human company but not fully adapt to an indoor home environment, causing chronic stress and thus bad welfare for the cat. This is further supported by L102, chap. 8, section 1, where it is stated that cats that are waiting for rehoming are not to be put through prolonged stress, especially feral cats used to living outside.

Cats capable of adapting to a home environment require thoughtful environmental modifications to ensure successful adjustment. Recommendations advise that complexity and quality in the environment matter more than the size of the environment the cat is kept in, emphasizing the importance of vertical space with elevated resting and hiding areas enabling the cat to feel in control of possible interactions and reducing stress by enabling observations from above (Rochlitz 1999). Keeping the cat in a secluded area of the home when the cat first arrives, as long as the room has adequate vertical spaces, can help the cat feel less stressed and adjust better to the new home environment (Rochlitz 1999).

Recommendations further state that one of the most important aspects of adjustment is retreating areas, enabling the cat to hide, and have control of interactions with humans and other animals in the new home (Rochlitz 1999). A slow integration into the home enables the cat to always have a safe area to go back to, minimizing risk of chronic stress, enabling slow and steady acclimatization to the unfamiliar environment, slowly building the cat-human relationship, and ensuring good cat health and welfare in the process (Ellis et al. 2013, Rochlitz 1999).

Taken together, these aspects illustrate that ensuring good welfare in cats requires knowledge across multiple domains, including behavior, environment, nutrition, and health. Ensuring that these needs are met in practice requires cat owners to possess sufficient knowledge and understanding of feline behavior, management, and care.

1.6 The role of owner knowledge in cat welfare

Given the complexity of a cat's behavioral and environmental needs, cat owner knowledge and understanding are central to ensuring appropriate care and welfare for the cat. Increasing the knowledge of a cat's needs and behaviors can contribute to higher owner satisfaction while owning a cat, as well as reducing the risk of abandonment and rehoming (Casey et al. 2009). Ensuring adequate knowledge and high welfare standards for cats' benefits not only the cat but also supports a positive cat-owner relationship. Interactions between cats and humans, especially cat-human cohabitation, have been shown to lessen the feelings of loneliness and depression in humans (Turner & Rieger 2001) and give a lowered risk for cardiovascular diseases (Qureshi et al. 2009).

There is no collected information about what knowledge a new cat owner needs or should have when adopting a cat in Sweden. One source of information could be the seller of the cat, but no current regulations or legislation state what kind of information is required from seller to buyer. In contrast, commercial pet stores are required through the Swedish Board of Agriculture's' regulations and general advice (SJVFS 2019:15) on the keeping, breeding and sale etc. of animals intended for companionship and hobby purposes, case no. L80, chap. 3, section 2-4, hereafter referred to as L80, to give out information sheets about the specific animal that is sold to the new owners. However, in the Swedish Animal Welfare Act (SFS 2018:1192) it is stated that the owner or keeper of an animal is required to have sufficient knowledge to see to the animals' needs and management, which entails that both seller and buyer should have sufficient knowledge of the species, this is further specified in L102, chap. 2, section 6.

Ensuring that potential cat owners receive sufficient, science-based information regarding feline behavioral needs and management before or during the adoption process may contribute to reducing the number of cats being abandoned or relinquished to cat shelters, which often operate at, or beyond, capacity (Casey et al. 2009). Despite this, it remains unclear what information is currently provided to prospective cat owners and what information should be provided. This lack of clarity introduces the need to investigate the information communicated by cat shelters and rehoming organizations and how it aligns with scientific knowledge.

1.7 Research purpose and questions

The purpose of this project was to assess what kind of information was accessible through Swedish cat shelters and rehoming organizations websites, Facebook profiles and, additional written information handed out, in relation to adoption of cats and if this information was grounded in current scientific knowledge and consistent with legislation regarding cat management, behavior, and needs. The following research questions will be answered:

1. How many Swedish cat shelters and rehoming organizations provide information about the cat's behavior and management on their website?
2. What information about the cat's behavior and management is given to people that adopt cats from Swedish cat shelters and rehoming organizations?
3. Is there a scientific and legal basis that supports the information provided to new cat owners by Swedish cat shelters and rehoming organizations at the time of adoption?

2. Material and Methods

2.1 Study design

The study used a qualitative approach to evaluate information provided by cat shelters to prospective adopters. Publicly available material on websites and Facebook profiles as well as additional information provided from cat shelters and rehoming organizations were analyzed using a predefined coding framework derived from current scientific literature and legal requirements related to feline behavior, management, and needs. The material analyzed consisted of informational content directed at new cat owners, rather than the practices of the organizations themselves.

2.2 Data collection

Potential cat shelters and rehoming organizations were identified through the County Administrative Boards' registry over organizations with permits in accordance with chap 6, section 4 of the Swedish Animal Welfare Act (SFS 2018:1192) and that works with rehoming of cats. All 21 County Administrative Boards in Sweden were contacted and asked for all permits concerning cat shelters and rehoming of cats.

The collected permits were all reviewed through the same process starting with a systematic read of the permit and identifying one or several key words such as *adoption, selling, foster home, re-homes* etcetera that indicates that the organization includes rehoming of cats (see Appendix 1 for full list of key words). Translation of the key words from Swedish to English was made with the help of AI (ChatGPT) to generate a stable back and forth translation between the languages.

If at least one key word was present in the text of the permit, the organization was deemed relevant for the thesis, and the permit was moved to a sub folder for further review. In the occasion that no key words were found the permit was placed in an archive folder. In unclear cases where relevance or imprecise key words were found, the permit was left in the review folder, and the remaining researchers were contacted, and a group decision was made. In the case of multiple permits for the same organization the most recently approved was moved to the sub folder for further reviewing and the older version was put in a separate archive folder.

All permits moved for further review were then reviewed again. The second process involved going through information in the permit consisting of county, document ID, name of organization, website, and/or Facebook profile, active or inactive company, any premises, any foster home operations, uncertainties concerning the organization and other kinds of operation alongside cat rehoming. All information was put into an excel file.

To check if organizations were active or inactive, they were checked against the website allabolag.se. If the column “Status” said “Active” the company was deemed active. If the column “Status” said “Registered” or the organization could not be found the company website and/or Facebook profile was checked for recent activity. If there were no activity during the year 2025 the organization was deemed inactive. See Appendix 2 for number of organizations included per County Administrative Board.

A comparison was made against the website kattly.se, a non-profit website with the aim to keep a complete data base regarding cat shelters in Sweden. If an organization was encountered that was not in the initial send out from the County Administrative Boards, the information about the specific organization was noted and an e-mail was sent to the relevant County Administrative Board requesting the permit. The number of missing organizations are marked with a parenthesis in Appendix 2.

All private people with permits for cat shelter operations that did not have a website and/or Facebook profile linked to their name and organization were removed from the study since information regarding cat adoption was not obtainable within the time limit of the study. Likewise, organizations without a website and/or Facebook profile were excluded due to lack of obtainable information.

In cases where multiple organizations held separate permits but were linked to the same website or shared information source, they were treated as a single unit during data collection, as the information available to adopters was identical. This approach ensured that the analysis reflected adopter-accessible information rather than administrative distinctions between organizations.

Data collection was guided by a predefined coding framework developed from scientific literature using different coding schemes. Collected data was stored in different excel files, describing county, document ID, name of organization, date of collection, collection type and numerous categories concerning feline behavior, management and needs (table 1) depending on the origin of data. Again, translation of the categories from Swedish to English was made with the help of AI (ChatGPT) to generate a stable back and forth translation between the languages.

Table 1. Feline management, behavior and needs categories used when collecting information from cat shelter organization websites and Facebook profiles.

Swedish category names	English category names
Social omgivning	Social environment
Säkra sov-/viloplatser	Safe resting and sleeping areas
Mat och vatten	Food and water
Kattspecifik diet	Cat-specific diet
Kattlåda	Litter box
Klösmöjligheter	Scratching opportunities
Lek- och jaktbeteende	Play and predatory behavior
Fysisk omvårdnad	Physical care
Anpassning till nytt hem	Adjustment to a new home
Märkning	Identification
Registrering	Registration
Vaccination	Vaccination
Fortplantningskontroll	Reproductive control
Preventiv veterinärvård	Preventative veterinary care
Försäkring	Insurance
Källhänvisning	Source citation
Hänvisar vidare	Referral to external sources

Data collection from websites consisted of systematic reviews of each organization's official website. Information related to cat adoption and cat management was identified and recorded in a predefined Excel file.

When no website could be retrieved, data were collected from the organization's Facebook profile through review of publicly available content. Retrieved information was subsequently reviewed and recorded in the same Excel workbook, using a separate worksheet to maintain a clear distinction between website information and Facebook profile data.

In addition to publicly available information, further written material routinely provided to adopters was obtained through direct email with the organizations who had a publicly available website or Facebook profile. Each organization was asked to share any pre-existing written information distributed in connection with adoption. All participation was voluntary. Any additional material received was reviewed and documented using the same data extraction procedure and recorded in the same Excel workbook, using a separate worksheet to maintain a clear distinction between publicly available data and additional material obtained through direct contact for websites and Facebook profiles, respectively. This separation facilitated traceability and ensured transparency in the coding process.

A reminder was sent approximately ten days after the initial contact to organizations that had not responded to the initial request.

2.3 Coding framework development

To be able to evaluate information about cat behavior, needs, and management on cat shelter websites (i.e., organizations or individuals holding a permit from the Swedish Board of Agriculture for cat rehoming), a categorization framework was developed, grounded in current scientific literature on feline behavior, welfare, and management. The framework was constructed through targeted reviews of peer-reviewed, published, and current scientific research within animal welfare and veterinary sciences as well as legislation regarding cats. To find current research four databases were used, PubMed, Primo, Web of science and Google Scholar. When searching in the databases, similar search words were used. Some of the search words were; *cats AND adoption, cat shelter, cat needs, cat rehoming, cat behavior needs, cat AND social group, cat environment*. To find relevant articles the search was specified to only include felines.

2.3.1 Coding framework categories

Creating a scientific framework to be able to compare cat shelter website information with current research provides a structured, science-based way of organizing key aspects of feline health and welfare that is important regarding owning and caring for a cat. The framework has been designed to integrate multiple research areas: behavioral, environmental, management, health and nutrition while thematically dividing the areas up to enable future information assessment.

While the coding framework was grounded in categories identified in previous research as described in the introduction, minor adaptations were made to category labels and scope to ensure applicability to the empirical material and to facilitate systematic data collection. In some cases, broader concepts described in the literature were narrowed to reflect the type of information typically provided by adopters. For example, the category ‘Physical care’ was derived from the broader concept of routine husbandry described in previous research but was limited to aspects commonly addressed in adopter-directed information, such as grooming and claw maintenance. Similarly, legal and administrative aspects of cat ownership were separated into distinct categories to allow clearer differentiation between scientific recommendations and legal requirements. The categories were selected as they represent key information relevant to the care and management of a cat for prospective owners. The final framework categories and their operational definitions are presented in table 2.

Table 2. Description of the coding framework categories. The original Swedish version can be seen in Appendix 3.

Category	Definition
Social environment	Information concerning the cat's individual needs of social interaction, predictability, and relationships with humans and, if relevant, other animals.
Safe resting and sleeping areas	Information regarding access to safe, undisturbed, and appropriately placed areas for rest and sleep
Food and water	Information regarding access to, handling and placement of food and water.
Cat-specific diet	Information concerning nutritional requirements and feeding practices specific to feline physiology.
Litter box	Information regarding access to, placement of, and maintenance of the litter box.
Scratching opportunities	Information concerning the cat's need to scratch and access to appropriate scratching resources.
Play and predatory behavior	Information concerning the need for play and opportunities to express natural predatory behaviors.
Physical care	Information regarding basic physical care, such as grooming, claw trimming, and checks of ears and teeth.
Adjustment to a new home	Information on how the transition to a new home and new routines can be facilitated for the cat
Identification	Information concerning identification of the cat through ID-marking.
Registration	Information concerning the registration of cats at the Swedish Board of Agriculture's official registry
Vaccination	Information regarding vaccination as part of the cat's health care.
Reproductive control	Information regarding measures to prevent unwanted reproduction, such as neutering and other methods.
Preventative veterinary care	Information concerning preventative veterinary measures to promote good health and welfare.
Insurance	Information concerning the possibility and benefit of ensuring the cat and what this might entail.
Source citation	YES, if presence of explicit references to sources within the informational text. Otherwise, NO.
Referral to external sources	If references to external sources are provided, indicate YES and include relevant link.

Prior to data collection, a small pilot sample was done to test and refine the data collection and coding procedure using an online randomizing tool to choose three cat shelters. The pilot sample informed some revisions to the methodology. These included separating identification and registration into two distinct categories, which were initially combined and revising the scientific alignment (V) coding scale from an initial four-level scale (0 – 3) to a three-level scale (0 – 2). The additional scale level was found to introduce unnecessary complexity and increase the potential for subjective interpretation. The final scale was therefore adapted to improve clarity and reduce observer bias.

2.4 Coding schemes

To operationalize the coding framework, a structured coding scheme was developed to assess the information depth, scientific alignment, and legal alignment of the collected data within each framework category. The coding scheme consisted of three dimensions: information depth (I), scientific alignment (V), and legal alignment (L). All described criteria are the translated English version, see Appendix 4 for the original Swedish versions.

2.4.1 Information depth coding

To ensure consistent coding across all categories, general decision rules were applied to distinguish between limited and in-depth information using a coding scale from 0-2, where higher values indicated higher level of information depth, (table 3). These criteria were applied to all categories in the framework.

Table 3. Information (I) coding scale with general decision criteria distinguishing between limited and in-depth information applied to all categories in the framework.

Coding scale (I)	Criteria
0	The area is not mentioned
1	Limited information. At least one of the following applies: ▪ Only general formulations ▪ No justifications provided ▪ No practical guidance provided ▪ Only a listing of one or more needs
2	Clear and well-developed information. At least two of the following applies: ▪ Explains what is needed ▪ Explains why ▪ Explains how it should be applied ▪ Links the information to welfare, health, and/or behavior

Categories assigned a code 0 for information depth (I) were not further assessed for scientific alignment (V) or legal alignment (L) and were therefore coded as non-applicable (N/A) for these dimensions.

2.4.2 Scientific alignment coding

To reduce subjectivity, scientific alignment (V) was assessed in relation to predefined scientific and regulatory references based on the coding framework which was derived from peer-reviewed scientific literature. Coding decisions were based on explicit comparison with these sources rather than evaluative judgement. Category-specific criteria were developed for categories in which scientific alignment was applicable, where A and B represent alignment with current scientific knowledge and C represents contradiction to current scientific knowledge (table 4).

Scientific alignment (V) was assessed using a 0-2 coding scale, where higher values indicated a higher degree of alignment with current scientific knowledge, applied consistently across all relevant categories (table 5). When none of the specific criteria for $V = 0$ or $V = 2$ was met, the category was coded as $V = 1$. In cases where no information was provided ($I = 0$), scientific alignment was not assessed and was therefore recorded as non-applicable (N/A).

Table 4. Scientific alignment (V) individual criteria for each applicable framework category. A and B represent alignment with current scientific knowledge and C represents contradiction to current scientific knowledge.

Category	Criteria
Social environment	A. Is the cat's need to be able to avoid social contact acknowledged? B. Is social interaction presented as individual-dependent rather than general? C. Are cats described as social animals that should always be kept in groups?
Safe resting and sleeping areas	A. Is the need for secluded or protected resting areas mentioned? B. Is the need to be able to withdraw undisturbed acknowledged? C. Is the need for hiding places or resting in seclusion denied?
Food and water	A. Is the need for free access to water acknowledged? B. Is placement or the provision of multiple resources in multi-cat households mentioned? C. Is the exclusive use of a shared resource advocated?

Category	Criteria
Cat-specific diet	A. Is the cat described as an obligate carnivore? B. Is the need for animal protein and essential nutrients acknowledged? C. Are recommendations provided that contradict this (e.g., vegan/vegetarian diets?)
Litter box	A. Are multiple litter boxes recommended? B. Is placement mentioned (separate from food and water)? C. Are recommendations given that directly contradict this?
Scratching opportunities	A. Is scratching acknowledged as a natural behavior? B. Is vertical scratching surfaces proposed that allow the cat to stretch to full body length? C. Is punishment or prohibition of scratching suggested?
Play and predatory behavior	A. Are play and predatory behaviors acknowledged as fundamental needs? B. Is the need for stimulation mentioned also for indoor cats? C. Is it claimed that play is unnecessary if the cat is fed?
Physical care	A. Is the need for routine care (coat, claws etc.) acknowledged? B. Is the physical care linked to health and/or welfare? C. Is the need for physical care denied?
Adjustment to a new home	A. Is a secluded area for the home recommended? B. Is gradual introduction recommended? C. Is the need for an adjustment period denied?
Vaccination	A. Is vaccination acknowledged as preventive health care? B. Is protection against infectious disease mentioned? C. Is vaccination claimed to be unnecessary in general for indoor cats?
Reproductive control	A. Is the need to prevent uncontrolled reproduction acknowledged? B. Is neutering recommended?

Category	Criteria
Preventative veterinary care	C. Is allowing an unneutered cat outdoors without preventive measures proposed?
	A. Are regular veterinary visits recommended?
	B. Is preventive care linked to health and/or welfare?
Insurance	C. Is veterinary care presented solely as an emergency measure?
	A. Is it acknowledged that veterinary care may entail financial burden?
	B. Is insurance linked to the possibility of seeking veterinary care?
	C. Is insurance not mentioned?

Table 5. Scientific alignment (V) coding scale.

Coding scale (V)	Coding rules
N/A	Non applicable
0	C = yes
1	General information is correct but without nuance; some information may be outdated or overly general.
2	A and/or B = Yes and C = No

2.4.3 Legal alignment coding

Legal alignment (L) was assessed for categories subject to statutory regulation, in relation to current Swedish legislation and recommendations concerning cats. Coding decisions were based on explicit comparison with the corresponding legislation rather than evaluative judgement. Legal alignment (L) was assessed using a binary (0-1) coding scale, applied consistently across all relevant categories (table 6).

Legal alignment was assessed only for selected categories where relevant legal requirements were clearly defined, identification, registration, and reproductive control. Categories with less explicit or more interpretive regulatory guidance were not included. In cases where no information was provided (I = 0), legal alignment was not assessed and was therefore recorded as non-applicable (N/A).

Table 6. Legal alignment (L) coding scale.

Code scale (L)	Criteria
N/A	Non-applicable
0	Information contradicts or fails to meet current legal requirements
1	Information is consistent with current legal requirements

2.5 Coding procedure

All collected materials were systematically coded using a predefined coding framework and coding schemes as described above. Coding was conducted manually by a single researcher and followed a structured and standardized procedure to ensure consistency across all organizations and information sources. Predefined decision rules were applied throughout the process.

Coding was conducted sequentially within each category. For each category, information depth (I) was assessed first, followed by scientific alignment (V) and, where applicable, legal alignment (L). In cases where no information was provided (I = 0), scientific alignment and legal alignment was not assessed and was therefore recorded as non-applicable (N/A). Coding was conducted once for every category for each website, Facebook profile, and additional written information source.

2.6 Analytical approach

The coded dataset was compiled and analyzed to examine patterns in the information provided. Frequencies of information presence, information depth, scientific alignment, and legal alignment were calculated for each category. The frequencies were used to describe how often the categories in the coding framework were mentioned and how detailed the information was. N/A values within scientific alignment and legal alignment were excluded in the calculations.

Cross-tabulations were constructed to examine the relationship between information depth and scientific alignment, as well as information depth and legal alignment for websites, Facebook profiles, and additional information, respectively. The cross-tabulation tables allowed comparisons between categories and facilitated the identification of broader patterns across the dataset.

For comparative purposes, categories were also grouped into behavioral/environmental, medical, and regulatory domains to examine broader thematic patterns in the dataset. Behavioral/environmental categories included social environment, safe resting and sleeping areas, food and water, cat-specific diet, litter box, scratching opportunities, play and predatory behavior, physical care, and adjustment to a new home; medical categories included vaccination,

reproductive control, preventative veterinary care, and insurance; and regulatory categories included registration, identification, and reproductive control. Reproductive control was included in both the medical and regulatory category groups, as it was assessed in relation to scientific alignment as well as legal alignment.

2.7 Statistical analysis

To examine associations between information depth (I) and scientific alignment (V) as well as legal alignment (L), chi-square (χ^2) tests of independence were performed on contingency tables derived from the coded dataset. Statistical significance was evaluated at a significance level of $\alpha = 0.05$. Expected cell frequencies were examined to ensure that the assumptions of the chi-square test were met. Chi-square tests were not applied to the Facebook profile dataset due to the considerable number of zero counts which resulted in expected cell frequencies below acceptable thresholds for reliable chi-square analysis. The Facebook profile data is therefore only analyzed descriptively.

3. Results

A total of 125 registered organizations or individuals with a permit from one of the 21 Swedish County Administrative Boards for cat rehoming was included in the analysis: 104 organizations with publicly available websites and 21 with a Facebook profile. Results are presented by category and coding dimension to illustrate patterns of information presence, depth, scientific alignment, and legal alignment. All organizations with websites ($n = 104$) and Facebook profiles ($n = 21$) were asked for additional information. A total of 34 organizations provided additional written information. Of the organizations with websites, 29 submitted additional material, 20 reported that no additional information was available, and 55 did not respond. Among organizations with Facebook profiles, 5 provided additional information, 3 reported that none was available and 14 did not respond.

3.1 Information (I)

3.1.1 Websites frequency and depth

Out of 104 reviewed websites, 91 (87.5%) contained information related to feline behavior and management, and 13 (12.5%) contained no relevant information. Frequency of information ($I = 1$ and $I = 2$) varied across categories and between organizations. For websites, the three most common areas of information were *identification*, *reproductive control*, and *vaccination*. The least mentioned, all in the lowest percentages, were *physical care*, *safe resting and sleeping areas* and *play and predatory behavior* (table 7).

Table 7. Distribution of the frequency with which each category was mentioned on organizations websites ($n = 104$). Values represent the number and percentages of cases in which information was present ($I = 1 + 2$, including both limited and in-depth information) and absence of information ($I = 0$).

Category	I = 1+2	I = 1+2 (%)	I = 0	I = 0 (%)
Social environment	44	42.3%	60	57.7%
Safe resting and sleeping areas	17	16.3%	87	83.7%
Food and water	24	23.1%	80	76.9%
Cat-specific diet	18	17.3%	86	82.7%
Litter box	23	22.1%	81	77.9%
Scratching opportunities	23	22.1%	81	77.9%
Play and predatory behavior	19	18.3%	85	81.7%
Physical care	11	10.6%	93	89.4%
Adjustment to a new home	23	22.1%	81	77.9%
Vaccination	85	81.7%	19	18.3%
Reproductive control	86	82.7%	18	17.3%

Category	I = 1+2	I = 1+2 (%)	I = 0	I = 0 (%)
Preventative veterinary care	24	23.1%	80	76.9%
Insurance	52	50.0%	52	50.0%
Identification	86	82.7%	18	17.3%
Registration	44	42.3%	60	57.7%
<i>Median</i>	<i>24</i>	<i>23.1%</i>	<i>80</i>	<i>76.9%</i>

Information depth (I = 2) varied across categories and between organizations. The categories with most in-depth information were *vaccination*, *registration*, and *insurance*, being the only ones above 20 instances. The least in-depth categories, unable to reach double-digit counts, were *adjustment to a new home*, *preventative veterinary care*, *play and predatory behavior* and *cat-specific diet* (table 8).

Table 8. Distribution information depth for each category for websites (n = 104). Values represent the number and percentages of cases that had in-depth information (I = 2).

Category	I = 2	I = 2 (%)
Social environment	9	8.7%
Safe resting and sleeping areas	8	7.7%
Food and water	10	9.6%
Cat-specific diet	6	5.8%
Litter box	10	9.6%
Scratching opportunities	10	9.6%
Play and predatory behavior	6	5.8%
Physical care	9	8.7%
Adjustment to a new home	6	5.8%
Vaccination	21	20.2%
Reproductive control	18	17.3%
Preventative veterinary care	6	5.8%
Insurance	26	25.0%
Identification	10	9.6%
Registration	29	27.9%

Four organizations included source citations and 13 included referrals to external sources. These sources primarily consisted of publicly available information.

3.1.2 Facebook profiles both frequency and depth

Frequency of information (I = 1 and I = 2) was limited across all categories and organizations. The only mentioned categories were *vaccination* (n = 5, 23.8%), *reproductive control* (n = 5, 23.8%), *identification* (n = 5, 23.8%), *social environment* (n = 1, 4.8%), *insurance* (n = 1, 4.8%), and *registration* (n = 1, 4.8%). All other categories were defined as absent (I = 0).

Information depth ($I = 2$) collected from Facebook pages ($n = 21$) was largely absent across categories. The only category for which in-depth information was identified was *registration* occurring in one (1) instance (4.8%).

No source citations or referrals to external sources were identified.

3.1.3 Additional written information both frequency and depth

Frequency of information ($I = 1$ and $I = 2$) varied across categories between organizations. In several cases, additional written information included materials produced by external sources, such as insurance companies. Also here the most common areas of information were *reproductive control and vaccination*, with the least mentioned being *preventative veterinary care* and *safe resting and sleeping areas* (table 9)

Table 9. Distribution of frequency with which each category was mentioned in additional information handed out at adoption from a cat shelter ($n = 34$). Values represent the number and percentages of cases in which information was present ($I = 1 + 2$, including both limited and in-depth information) and absence of information ($I = 0$).

Category	$I = 1+2$	$I = 1+2$ (%)	$I = 0$	$I = 0$ (%)
Social environment	9	26.5%	25	73.5%
Safe resting and sleeping areas	8	23.5%	26	76.5%
Food and water	17	50.0%	17	50.0%
Cat-specific diet	12	35.3%	22	64.7%
Litter box	13	38.2%	21	61.8%
Scratching opportunities	9	26.5%	25	73.5%
Play and predatory behavior	11	32.4%	23	67.6%
Physical care	10	29.4%	24	70.6%
Adjustment to a new home	19	55.9%	15	44.1%
Vaccination	27	79.4%	7	20.6%
Reproductive control	28	82.4%	6	17.6%
Preventative veterinary care	7	20.6%	27	79.4%
Insurance	23	67.6%	11	32.4%
Identification	23	67.6%	11	32.4%
Registration	23	67.6%	11	32.4%
<i>Median</i>	<i>13</i>	<i>38.2%</i>	<i>21</i>	<i>61.8%</i>

Information depth ($I = 2$) varied across categories and between organizations. Overall, most categories contained relatively few instances of in-depth information, with only three categories reaching double-digit counts; *registration*, *vaccination*, and *insurance* (table 10)

Table 10. Distribution of information depth for each category for additional information handed out at adoption from a cat shelter ($n = 34$). Values represent the number and percentages of cases that had in-depth information ($I = 2$).

Category	$I = 2$	$I = 2$ (%)
Social environment	2	5.9%
Safe resting and sleeping areas	3	8.8%
Food and water	6	17.6%
Cat-specific diet	5	14.7%
Litter box	7	20.6%
Scratching opportunities	6	17.6%
Play and predatory behavior	4	11.8%
Physical care	2	5.9%
Adjustment to a new home	9	26.5%
Vaccination	14	41.2%
Reproductive control	5	14.7%
Preventative veterinary care	4	11.8%
Insurance	13	38.2%
Identification	5	14.7%
Registration	21	61.8%

One organization included source citations and four included referrals to external sources. These sources primarily consisted of cat product companies, publicly available information from the Swedish Board of Agricultural, animal organizations, and private websites.

3.2 Scientific alignment (V)

3.2.1 Websites

Scientific alignment (V) on organization websites showed that most information was classified as generally correct ($V = 1$), while fully aligned information ($V = 2$) was less common. Higher levels of scientific alignment were observed in categories such as *vaccination* and *insurance*, whereas categories related to behavioral and environmental needs more often contained partially aligned information. Instances of information contradicting scientific references ($V = 0$) were rare across all categories. Detailed category-level distributions are presented in Appendix 5 (table A).

3.2.2 Facebook profiles

Scientific alignment (V) information collected from Facebook pages ($n = 21$) was limited. No instances of information contradicting current scientific knowledge ($V = 0$) were found. Similarly, there are no instances of information fully aligned with the specific scientific criteria ($V = 2$). All cases were coded as partially aligned

($V = 1$), primarily relating to *vaccination* ($n = 5$, 23.8%) and *reproductive control* ($n = 5$, 23.8%) with single instances also observed for *social environment* ($n = 1$, 4.8%) and *insurance* ($n = 1$, 4.8%).

3.2.3 Additional written information

Scientific alignment (V) in additional written information varied across categories and organizations. Most categories were classified as generally correct ($V = 1$), including *vaccination*, *reproductive control*, and *insurance*, while fewer instances of full scientific alignment ($V = 2$) were observed. Categories with information contradicting scientific references ($V = 0$) were rare, including, amongst others, *food and water*, *cat-specific diet*, and *preventative veterinary care*. Detailed category-level distributions are presented in Appendix 5 (table B).

3.3 Legal alignment (L)

3.3.1 Websites

Legal alignment (L) regarding websites was overall very high for the categories *reproductive control* ($n = 82$, 78.8%) and *identification* ($n = 86$, 82.7%) when the categories were mentioned. *Registration* ($n = 36$, 34.6%) had a lower alignment. There were only a few instances of legal non-alignment in the categories *reproductive control* ($n=4$, 3.8%) and *registration* ($n = 8$, 7.7%).

3.3.2 Facebook profiles

No cases of non-compliance ($L = 0$) were identified on the Facebook pages. The legally relevant information presented showed legal alignment ($L = 1$) when mentioned, but the occurrence of information was very limited for all categories included in legal assessment, *reproductive control* ($n = 5$, 23.8%), *ID- marking* ($n = 5$, 23.8%) and *registration* ($n = 1$, 4.8%).

3.3.3 Additional written information

Legal alignment ($L = 1$) regarding additional written information was overall very high for all categories included in legal assessment, *reproductive control* ($n = 28$, 82.4%), *identification* ($n = 23$, 67.6%) and *registration* ($n = 21$, 61.8%) with only two (2) instances of legal non-alignment ($L = 0$) being observed for the category *registration* (5.9%).

3.4 Comparative analysis

To further explore structural patterns in the data set, cross-dimensional and domain-level comparisons were made. This section presents the relationship between information depth (I) and scientific alignment (V), the relationship

between information depth (I) and legal alignment (L) as well as differences between thematic category groups. To assess differences in information sources, chi-square (χ^2) tests were conducted.

3.4.1 Websites

Information depth and scientific alignment

When combined across all categories for which scientific alignment (V) was assessed, in-depth information (I = 2) was predominantly coded as scientifically aligned (V = 2), whereas limited information (I = 1) was most often classified as generally correct (V = 1). Instances of information contradicting scientific references (V = 0) were rare (table 11). A chi-square test confirmed a significant association between information depth and scientific alignment ($\chi^2 = 194.84$, df = 2, n = 449, $p < 0.001$), indicating that higher information depth was associated with stronger scientific alignment.

Table 11. Cross-tabulation of information depth (I) and scientific alignment (V) across categories for which scientific alignment was assessed on organization websites (n = 449). Values represent the number of cases coded at each combination of information depth (I = 1-2) and scientific alignment (V = 0-2).

I level	V = 0	V = 1	V = 2
I = 1	12	290	2
I = 2	1	15	129

Information depth and legal alignment

Legal alignment regarding websites was generally high across all categories for which legal alignment (L) was assessed. Instances on non-compliance (L = 0) were only observed when information was coded as limited (I = 1), whereas all cases of in-depth information (I = 2) were legally compliant (L = 1) (table 12). A chi-square test indicated a significant association between information depth and legal alignment ($\chi^2 = 4.62$, df = 1, n = 216, $p < 0.032$), indicating that categories with in-depth information were more consistently compliant with current legislation than categories with limited information.

Table 12. Cross tabulation of information depth (I) and legal alignment (L) across categories for which legal alignment was assessed on organizations websites (n = 216). Values represent the number of cases coded at each combination of information depth (I = 1-2) and legal alignment (L = 0-1).

I level	L = 0	L = 1
I = 1	12	147
I = 2	0	57

Differences between thematic category groups

When categories were grouped by thematic domain, medical and regulatory topics demonstrated a higher mean proportion of in-depth information ($I = 2$) compared to behavioral/environmental topics. A similar pattern was observed for strong scientific alignment ($V = 2$), with medical categories showing more than twice the proportion observed within behavioral/environmental categories, see Appendix 5 (table C).

3.4.2 Facebook profiles

Information depth and scientific alignment

Scientific alignment in the Facebook profile material was very limited. No instances of information contradicting scientific references ($V = 0$) or fulfilling the criteria for strong scientific alignment ($V = 2$) were identified, as well as no instances of in-depth information ($I = 2$). All occurring cases were coded as partially aligned ($V = 1$) within limited information ($I = 1$). Categories mentioned were *vaccination* ($n = 5$) and *reproductive control* ($n = 5$) with single instances regarding *social environment* ($n = 1$) and *insurance* ($n = 1$).

Information depth and legal alignment

All legally relevant information identified in the Facebook profiles material was compliant with current legislation ($L = 1$). Both *reproductive control* and *identification* had a count of five ($n = 5$) cases each within limited information ($I = 1$) and *registration* was mentioned only once ($n = 1$) within in-depth information ($I = 2$).

Differences between thematic category groups

In-depth information ($I = 2$) and strong scientific alignment ($V = 2$) were largely absent in the Facebook profile material. Only a single instance of in-depth information was identified in the category *registration* ($n = 1$).

3.4.3 Additional written information

Information depth and scientific alignment

Cross-tabulation of information depth (I) and scientific alignment (V) for additional written information across categories showed a consistent pattern. In-depth information ($I = 2$) was predominantly coded as scientifically aligned ($V = 2$), whereas information coded as limited ($I = 1$) was mostly coded as generally correct ($V = 1$). Instances of information contradicting scientific references ($V = 0$) were rare across both levels (table 13). A chi-square test showed that there was significant association between information depth and scientific alignment ($\chi^2 =$

173.72, $df = 2$, $n = 193$, $p < 0.001$), indicating that higher information depth was associated with higher scientific alignment.

Table 13. Cross-tabulation of information depth (I) and scientific alignment (V) across categories for which scientific alignment was assessed on additional information (n = 193). Values represent the number of cases coded at each combination of information depth (I = 1-2) and scientific alignment (V = 0-2).

I level	V = 0	V = 1	V = 2
I = 1	4	109	0
I = 2	1	4	75

Information depth and legal alignment

Legal alignment regarding written information was generally high across all applicable categories. Only two instances of non-compliance ($L = 0$) were observed when information was coded as limited ($I = 1$), whereas all cases of in-depth information ($I = 2$) were legally compliant ($L = 1$) (table 14). No statistical association was found between information depth and legal alignment ($\chi^2 = 1.41$, $df = 1$, $n = 74$, $p > 0.05$), indicating that compliance with legal requirements occurred largely independent of the level of information depth.

Table 14. Cross tabulation of information depth (I) and legal alignment (L) across categories for which legal alignment was assessed on additional information (n = 74). Values represent the number of cases coded at each combination of information depth (I = 1-2) and legal alignment (L = 0-1).

I level	L = 0	L = 1
I = 1	2	41
I = 2	0	31

Differences between thematic category groups

When categories were grouped by thematic domain, medical and regulatory topics demonstrated a higher mean proportion of in-depth information ($I = 2$) compared to behavioral/environmental topics. A similar pattern was observed for strong scientific alignment ($V = 2$), with medical categories showing almost twice the proportion observed within behavioral/environmental categories, see Appendix 5 (table D).

4. Discussion

The aim of this study was to assess information provided by cat shelters and rehoming organizations to new cat owners in relation to current scientific knowledge and current legislation on feline behavior, management, and needs. The results show that a majority of Swedish cat shelters provide some information on their websites, although the extent and depth vary considerably between organizations. The information provided primarily focuses on medical and regulatory aspects of ownership, while behavioral and environmental needs are less frequently described in detail. Scientific alignment was strongly associated with information depth, indicating that more detailed information was more likely to reflect current scientific knowledge. In contrast, legal alignment appeared independent of information depth, as most organizations provided legally compliant information regardless of level of detail. Explicitly incorrect information was rare. In addition, the limited use of source citations suggests that the transparency and traceability of the information may be insufficient to fully support prospective cat owners in evaluating its reliability and making informed decisions regarding husbandry and care.

4.1 Availability of information

Written information related to feline behavior and management was present across most organizations. However, the presence of information alone does not necessarily indicate that the information is accurate, comprehensive, current, or practically useful for prospective cat owners. Notably, none of the organizations with absent website-based information volunteered additional written information, suggesting that absent online information was not compensated for through other written sources.

At the same time, the availability of information on cat shelters and rehoming organization websites is difficult to reduce to a single measure of adequacy. This study assessed both the extent of information (i.e., whether topics are addressed) and aspects of information depth through a structured coding framework. However, these measures do not establish what constitutes “sufficient” or “adequate” information, as no objective threshold for adequacy currently exists. In the absence of established standards – particularly legal requirements specifying what information should be communicated to prospective cat owners – such assessment would require additional normative criteria beyond the scope of this study.

Nevertheless, although it is not possible to directly determine exactly how much information is “enough”, the information provided should reasonably support current and prospective cat owners in fulfilling the knowledge requirement established in the Swedish Animal Welfare Act (SFS 2018:1192), which states that

animal keepers must have sufficient knowledge to ensure that the animals' physical and physiological needs are met.

In addition, ethical considerations are important when conducting research that may influence shelter and organization practices and rehoming decisions. As research findings may influence adoption procedures and rehoming policies, it is important that conclusions are communicated accurately. As emphasized in a study by Wagner et al. (2018), decisions regarding housing, management, and rehoming practices can have substantial effects on feline welfare, highlighting the importance of ensuring that research-based developments are guided by both scientific evidence and ethical considerations.

Previous research shows that owner knowledge is an important factor influencing feline welfare, the cat-owner relationship, and long-term ownership outcomes. A greater understanding of feline behavior and species-specific needs has been associated with fewer owner perceived behavioral problems, suggesting that knowledge contributes to a more appropriate interpretation of normal feline behavior and better management of behavioral challenges (Grigg & Kogan 2019). Higher owner knowledge was also associated with lower use of punishment-based responses to unwanted behaviors and greater tolerance of behaviors perceived as problematic, indicating that owner knowledge may affect not only how cats are managed, but also how their welfare is safeguarded (Grigg & Kogan 2019). In addition, a study by O'Hanley et al. (2021) showed that correction techniques, such as positive punishment (e.g., making loud noises, verbal commands or holding the cat), increased the risk of aggressive behaviors, while positive reinforcement techniques (e.g., waiting for a wanted behavior and then rewarding) reduced aggressive behavior. These findings further demonstrate that owner knowledge has direct welfare implications, as inappropriate management strategies may increase stress and contribute to further behavioral problems.

A recurring issue in the literature is the persistence of misconceptions about cats, particularly the perception of cats as highly independent and self-sufficient animals. In a Swedish study, a majority of owners agreed, fully or partially, that cats can manage on their own, an attitude that the authors identified as potentially problematic from a welfare perspective (Hirsch et al. 2022). Similar misconceptions have also been identified internationally, including beliefs that cats are naturally solitary, low-maintenance and less socially dependent on humans, despite being in conflict with current scientific understanding of feline behavior (Machado et al. 2025). Furthermore, such beliefs may contribute to delayed veterinary care, insufficient monitoring of health and behavioral changes, and reduces owner engagement in preventative care. Since cats often mask signs of illness (Hirsch et al. 2022), owner awareness and knowledge become especially important for early identification of welfare concerns. Research further suggests that misconceptions about feline needs may influence practical care decisions, including environmental

provision, enrichment, grooming, and routine healthcare, with direct implication for feline welfare (Machado et al. 2025).

Owner knowledge also appears to influence how feline behavior is interpreted. Hirsch et al. (2022) found that owners with formal education in animal behavior were less likely to agree with the statement that cats misbehave “out of spite”, suggesting that education may reduce anthropomorphic interpretations of behavior. This is relevant because misinterpretation of species-typical behaviors, such as scratching, hiding, or avoidance, may increase owner frustration and the risk of inappropriate responses such as punishment or relinquishment. Differences between veterinary professionals and cat owners regarding perceptions of feline behavior and health further suggests that important welfare-relevant needs may not always be recognized or prioritized by owners (Bir et al. 2016)

The implications of insufficient owner knowledge extend beyond the individual cat-owner relationship and may affect society more broadly. Behavioral problems and owner-related difficulties are significant contributors to cat relinquishment. In a Danish shelter study covering over two decades, behavioral problems accounted for approximately one-quarter of cat relinquishments, while owner-related circumstances such as health and housing counted for the majority (Jensen et al 2020). Importantly, the authors note that behavioral problems are often closely connected to management, environment, and owner expectations, suggesting that some relinquishments may be preventable through owner education and preparation before adopting a cat. Beyond relinquishment, owner management decisions shaped by misconceptions may also have broader societal consequences. Free-roaming cats, for example, have been associated with increased risk of injury, disease transmission, wildlife predation, and community nuisance, highlighting how owner knowledge and management choices may affect not only the cat but also the surrounding environment and society (Awawdeh et al. 2026).

Together, these findings suggest that owner knowledge has practical implications across multiple levels: for the cat through improved welfare and reduced stress, for the owner through better understanding and stronger attachment, and for society through potentially reduced relinquishment rates and shelter burden, and fewer welfare and environmental consequences. This highlights the importance of evidence-based educational resources for both current and prospective cat owners as a preventative welfare strategy.

4.2 Content and distribution of information

Information related to medical and administrative requirements was most consistently available on Swedish cat shelter and rehoming organizations websites. Particularly regarding vaccination, reproductive control, and identification. In contrast, content addressing behavioral and environmental needs – such as physical care, appropriate resting areas, and cat-specific diet – was far less commonly

included. Overall, many topics were absent from the majority of websites, indicating an uneven distribution of information across categories.

The level of detail also differed between topics and organizations. More in-depth information was primarily found in areas related to registration, insurance, and vaccination, whereas behavioral aspects, including diet and natural behaviors such as play and predatory opportunities, were seldom described in detail. In general, comprehensive information was limited across most categories.

The fact that behavioral and environmental aspects were less frequently covered suggests that the information provided is selective and does not consistently reflect the full range of feline needs. A smaller subset of organizations also offered additional written information, which largely followed the same pattern as website content. Medical and regulatory topics remained most prominent, while behavioral and environmental information continued to be less emphasized. These supplementary materials did not substantially increase the depth of information overall.

In comparison, Facebook profiles contained very limited information with only six categories mentioned, concerning primarily medical and regulatory topics. Additional written information varied between organizations but generally reflected similar information as that observed on websites, primarily reinforcing information related to medical and regulatory aspects.

This pattern is also evident at an overall level, where categories related to behavioral and environmental needs consistently showed lower proportions on in-depth information and strong scientific alignment compared to medical and regulatory categories, see appendix 5 (table C and D). In both website and additional written information, the highest values were observed for regulatory and medical categories, whereas behavioral and environmental categories remained comparatively low. The higher values indicate that information within medical and regulatory categories was not only more frequently present, but also more often communicated in greater detail and with stronger alignment to scientific knowledge. In contrast, the lower values within behavioral and environmental categories suggest that these topics were more often addressed superficially or with less comprehensive information.

The findings suggest that the information provided by shelters and rehoming organizations is primarily focused on medical and regulatory aspects, while behavior and environmental needs are less systematically addressed, despite their central importance for daily management, welfare, and the prevention of owner-perceived behavioral problems. This pattern may partly be influenced by external actors, as insurance companies often are affiliated with shelters and rehoming organizations and may provide their own informational materials to adopters. Such materials typically focus on insurance related aspects, which may contribute to the

relatively high representation of these topics compared to behavioral and environmental information.

In addition, the distribution of information across categories may partly be explained by the regulatory framework, which has shifted from more prescriptive requirements towards function-based and outcome-oriented standards. The previous version of the Swedish animal welfare regulations concerning general advice for keeping of cats and dogs (SJVFS 2019:28), included more quantitative requirements, such as specifying number of resources, whereas the current regulation (SJVFS 2020:8) emphasize that resources should be sufficient and adapted to the needs of the cat.

This shift is also reflected in a greater emphasis on behavioral needs, environmental enrichment, and the importance of providing conditions that support natural behavior and minimize stress. Such a transition aligns with broader regulatory developments in which detailed rules are replaced by more flexible, context-dependent standards. While these standards allow for adaptation to individual circumstances, they also introduce a higher degree of interpretive ambiguity, as key concepts (e.g., what constitutes “sufficient” or “appropriate”) are not explicitly defined (Tampubolon 2025).

Consequently, greater responsibility is placed on animal keepers to interpret and apply the requirements based on their knowledge of feline behavior, management, and needs. Legal research indicates that when regulations rely on broadly formulated standards, the interpretation of requirements shifts from the legislator to the individual actor, increasing the potential and risk for variation in how rules are understood and implemented (Tampubolon 2025). This may partly explain the observed variation in content and depth of information provided by cat shelters and rehoming organizations. Less prescriptive regulations offer limited guidance on what specific information should be communicated, which may result in differences depending on the knowledge, experience, and priorities of the organization. In this way, the regulatory design itself may contribute to variability in both the scope and the scientific alignment in the information provided.

Another aspect of the information provided was the limited use of source citation and external references across platforms. Source citations were rare, which may reduce transparency, as it becomes difficult for prospective cat owners to identify where the information originates and how it is supported. This is particularly relevant in online environments, where traditional mechanisms for verifying information are often absent, placing greater responsibility on users to assess credibility themselves (Metzger & Flanigan 2013). Research shows that individuals rely heavily on source-related cues, such as source citations, when evaluating information, and the absence of clear source information can create uncertainty regarding trustworthiness (Metzger & Flanigan 2013). Including clear references to scientific or authoritative sources would therefore strengthen the

credibility and traceability of the information provided. This aligns with previous research demonstrating that source credibility and information quality significantly influence how individuals perceive, engage with, and act upon information (Shah & Wei, 2022).

Referrals to external sources were somewhat more common but varied in type, including authorities, pet companies, insurance companies, and private websites. This variation highlights the importance of carefully considering which sources are referred to, as these may influence how information is interpreted and applied by prospective owners. Prior research shows that factors such as source authority and transparency play a central role in shaping trust and credibility judgments in web-based information environments (Sbaffi & Rowley 2017). Referring to reliable, evidence-based sources may therefore be important for ensuring that the information provided is consistent and aligned with current scientific knowledge. This is particularly relevant given the observed association between information depth and scientific alignment, as both the inclusion of references and the selection of external sources may support more detailed, transparent, and scientifically grounded communication.

The results in this study show that information related to feline behavior and management is present across many organizations but unevenly distributed across topics and rarely comprehensive within individual websites. As a result, prospective cat owners are unlikely to obtain a complete understanding of a cat's behavioral and environmental needs from a single source. This suggests that the informational role of shelters and rehoming organizations is partial rather than comprehensive, with an implicit expectation that adopters seek additional knowledge independently.

4.3 Scientific alignment and legal alignment

The analysis showed a strong association between information depth and scientific alignment. In-depth information ($I = 2$) was predominantly classified as scientifically aligned ($V = 2$), whereas limited information ($I = 1$) was most often classified as generally correct ($V = 1$). This relationship was statistically significant, indicating that higher levels of information depth were associated with higher levels of scientific alignment. This finding was partly expected, as scientifically accurate information on feline behavior, management and needs often require more detailed explanations. Providing such explanations increases the information depth, making it more likely that the information is classified as both in-depth and scientifically aligned.

Nevertheless, the results indicate that limited information was rarely incorrect but tended to consist of simplified or generalized statements. While such information may be sufficient for basic understanding, it may not provide adequate guidance for more complex aspects of cat behavior and management.

Legal alignment (L) was overall very high across categories and organizations. A weak but statistically significant association was observed between information depth and legal alignment regarding website information. While information coded as in-depth (I = 2) was consistently compliant with current legal requirements (L = 1), limited information (I = 1) also showed a high level of compliance. This suggests that, although more detailed information might be slightly more likely to meet legal requirements, compliance is generally achieved regardless of the level of detail. In practice, this indicates that organizations are able to provide legally compliant information even when it is presented in a simplified form.

For additional written information, no statistical significance could be found between information depth (I) and legal alignment (L). This indicates that legal alignment occurred largely independent of information depth, further strengthening the indication that it is possible to provide legally correct information in a simplified form.

It is, however, interesting to note that the observed legal alignment values were higher for the categories *vaccination* and *reproductive control* than the category *registration*. Registration in the official registry run by the Swedish Board of Agriculture has been a legal requirement since January 1st, 2023 (2007:1150), giving cat shelters and rehoming organizations an adequate amount of time to update and/or change their information both on their websites but also in their addition written information given to adopters.

When considered together these findings highlight a clear distinction between scientific alignment and legal alignment. While higher levels of information depth were strongly associated with improved scientific alignment, legal alignment appeared to be achieved regardless of the level of detail. This suggests that providing information that meets legal requirements does not necessarily require extensive explanations, whereas alignment with current scientific knowledge is more dependent on the depth and completeness of the information provided. This could be one explanation to why behavioral and environmental needs have less in-depth information, as this would require the person editing the website and/or writing the additional information to either have current scientific knowledge about feline behavior, management and needs or the knowledge of where to find it. Recognizing that most personnel working in a cat shelter or rehoming organization are volunteers, this may not be the case.

While the result of this study suggests that organizations generally provide legally compliant information, the stronger association between information depth and scientific alignment indicates that more detailed knowledge may be required to ensure that the information reflects current scientific understanding of feline behavior and welfare. Current legislation on the keeping of dogs and cats' states that, in permit-required operations, competence in areas such as cat behavior,

physiological needs, and the provision of an appropriate social and physical environment is required (chap. 9, section 4, L102).

However, these requirements apply primarily to the permit holder and do not explicitly regulate how such knowledge should be communicated to prospective cat owners. Furthermore, it might not be the permit holder that manages the daily care for the cats or works hands on with rehoming and communication to prospective cat owners. At the same time, regulations governing commercial sales of animals, L80, require that written information about the animal and its care is provided on point of sale. This difference raises the question of whether provision of information to new cat owners could be more clearly regulated also in the context of cat rehoming, especially since cats have, as previously stated, specific behavioral needs, and failure to meet these needs can result in stress, anxiety, and the development of secondary problems (Da Graça Pereira et al. 2014).

Moreover, current research highlights ethical considerations concerning welfare of cats throughout the adoption process. Fragoso (2020) argues that shelters have ethical responsibility not only to ensure successful adoptions but also to safeguard animal welfare during the period of confinement in a cat shelter. While rehoming can improve welfare, shelter environments may also expose the cat to stress, fear and reduced welfare if their physical and behavioral needs are not accurately met. Although sustainability is not explicitly discussed in the literature, the findings in this study could be interpreted from a sustainability perspective, as previous research has shown that most failed adoptions take place within two weeks, in which the cats are returned to the shelter (Stella & Croney 2016), consequently successful long-term rehoming may contribute to more efficient use of shelter resources and improved welfare outcomes for cats over time.

Given that shelters and rehoming organizations represent a primary source of information for prospective cat owners, the extent to which knowledge held within organizations is translated into accessible and comprehensive information becomes an important consideration. This may indicate a gap between competence requirements within organizations and the information that is made available to prospective cat owners.

4.4 Practical implications

The findings of this study show practical implications for cat shelters and rehoming organizations. While information is generally provided and appears to meet legal requirements, the distribution and depth of this information is uneven across categories. This suggests that there is potential to strengthen the communication of information related to feline behavior, management, and needs.

In particular, increasing the depth of information, as the result showed a strong association between information depth and scientific alignment. Providing more detailed explanations rather than general or simplified statements may therefore

improve the extent to which the information reflects current scientific knowledge. This is especially relevant for behavioral and environmental aspects of cat care, which were consistently underrepresented across both websites and additional written material. This is notable, as previous research has shown that inadequate environments and inability to perform natural behaviors are key sources of stress and welfare problems in cats (Amat et al. 2016) and that environmental enrichments are essential for reducing stress related problems, promoting better welfare (Wojtaś et al. 2024)

From a regulatory perspective, current legislation demands competence in areas such as animal behavior, physiological needs, and environmental conditions in permit-required operations. However, these requirements primarily concern the knowledge held by the permit holder and do not explicitly regulate how such knowledge should be communicated to prospective cat owners, nor do they clearly establish responsibility for the accuracy and completeness of the information provided by the organization as a whole. In contrast, regulations governing the commercial sale of animals, L80, require that written information be provided at the point of sale.

This difference suggests that the regulatory framework for cat rehoming could be further developed by introducing requirements regarding the provision of information to new owners. For example, aligning these requirements more closely with those applied to commercial animal sales, clarifying the responsibility of the permit holder for ensuring that the information provided by the organization is accurate, consistent and reflects current knowledge. In addition, providing written information may enhance both transparency and accountability, as it provides a documented basis for what has been communicated and supports the transfer of responsibility from the cat shelter or rehoming organization to the new cat owner. Verbal information, by comparison, is more difficult to verify and may be subject to variation or misinterpretation. Providing consistent written information may contribute to more uniform and comprehensive information delivery, ensuring that new cat owners get sufficient information when adopting a cat.

The findings in this study also have implications for cat owners. As shelters and rehoming organizations represent a primary source of information for prospective cat owners, the content and depth of information provided can influence how cats are managed in the home environment. The limited representation of behavioral and environmental needs observed in this study suggests that owners may receive insufficient guidance on how to meet these needs in practice. This is relevant, as previous research has proven that opportunities for play and behavioral engagement, amongst others, are important for supporting natural behaviors, reducing stress, and strengthening the cat-owner relationship (Henning et al. 2023).

Moreover, previous research has shown that behavioral problems such as aggression, inappropriate elimination, and nocturnal activity negatively affect the

cat-human relationship and increase the risk of relinquishment as owners are more likely to perceive behaviors as problematic when they directly affect their daily life or environment (Powell et al. 2023). Ensuring that owners receive more comprehensive and behaviorally focused information may therefore contribute to improved welfare outcomes and more positive ownership experiences, once again minimizing the risk of cats being abandoned or relinquished to cat shelters as a consequence of inadequate knowledge and owner perceived behavioral issues. This is also supported by Grigg and Kogan (2019) showing that greater owner knowledge of feline behavior is associated with fewer reported behavioral problems and more appropriate responses to undesired behaviors.

An additional practical implication is the potential value of developing standardized, evidence-based informational materials for prospective cat owners. Previous research has shown that structured and clearly designed written materials improve comprehension and usability of information and that standardized formats support more effective communication of scientific evidence (Dunnett et al. 2025, Riera et al. 2023, Randell et al. 2025). A centrally developed information sheet, for example by the Swedish board of Agriculture or by the Swedish University of Agricultural Sciences (SLU), could support shelters and rehoming organizations in providing consistent, current, and scientifically grounded information, with possibilities for information in additional languages. Centralized and consistently designed information sources have also been shown to improve clarity and quality in public communication (Gagen & Kreps 2019). Centrally developed material also reduces the need for individual organizations to develop their own resources thereby supporting more efficient and uniform information distribution.

Taken together, the findings show that while shelters and rehoming organizations generally meet legal requirements, improving the depth and distribution of information – particularly regarding behavioral and environmental need – may contribute to better alignment with scientific knowledge and support more informed cat ownership, positively influencing the cat-owner relationship.

4.5 Methodological considerations and limitations

Only organizations with a website and/or publicly accessible contact information were included in the study. As such, the findings are limited to organizations with online presence, and the publicly available information analyzed may change over time, meaning that the results reflect the information available at the time of data collection. In addition, several organizations chose not to participate in the voluntary sharing of additional information or did not answer the request, which may introduce some selection bias towards more transparent organizations who were more willing to share information.

It is important to acknowledge that absence of information is not the same as absence of practice nor does willingly shared information guarantee that it is used

in practice. Therefore, the findings should be interpreted as reflecting the availability and content of communicated information, rather than actual practices within organization.

Another limitation of this study is that only written information was analyzed, and verbal communication between shelters and prospective adopters was not included. This may result in an underestimation of the total amount of information provided, as some organizations may convey important guidance through direct instructions. However, written information remains an important and consistent source of information for prospective cat owners, enabling cat owners to revisit information that might be needed in the future as well as ensuring consistent information being administered during adoption. Verbal communication is heavily dependent on the knowledge level of the information giver. Therefore, written material constitutes a relevant and meaningful basis for analyses.

In addition, the coding and categorization of information, including assessments of information depth and scientific alignment, involve a degree of interpretation. Although efforts were made to apply consistent criteria, some levels of subjectivity cannot be excluded.

Future research could expand on these findings by including observational or interview-based approaches to capture verbal communication between shelters and adopters, as well as by exploring how information is understood and applied by new cat owners. Further studies could also investigate whether differences in information provision are associated with outcomes such as owner satisfaction, behavioral problems, or rates of relinquishment of cats to cat shelters.

Despite these limitations, the study provides a structured overview of the availability, content, and scientific alignment of information provided by cat shelters and rehoming organizations, offering insight into how information is communicated to prospective cat owners.

4.6 Conclusion

Cats have a range of behavioral, environmental, and physical needs that are essential for their health and wellbeing, and adequate knowledge of these needs in owners is important for ensuring good welfare and a positive cat-owner relationship. This study examined the availability, content and scientific alignment of information provided by Swedish cat shelters and rehoming organizations. The results showed that while information is present for most categories, it is unevenly distributed, with a focus on medical and regulatory aspects of cat ownership and less attention given to behavioral and environmental needs. These topics were not only less frequently included but were also generally presented in lower depth, limiting the overall comprehensiveness of the information provided. A significant association between information depth and scientific alignment further indicated that more detailed information is more likely to reflect current scientific knowledge.

In addition, the limited use of source citations and the variation in external sources suggest that the transparency and consistency of the information provided may be insufficient to fully support prospective cat owners in evaluating reliability. While the information often appears to meet basic expectations and legal requirements, current legislation does not specify what information should be provided, nor do they clearly address responsibility for the accuracy and completeness of information communicated to adopters. Overall, the findings indicate that the informational role of cat shelters and rehoming organizations is important but currently limited in scope and consistency. Strengthening both the content and transparency of information – particularly regarding behavioral and environmental needs – may support more informed cat ownership and improved welfare outcomes. This could be facilitated through clearer guidelines or standardized, evidence-based informational material to support organizations in providing consistent and scientifically grounded guidance.

References

- Amat, M., Camps, T. & Manteca, X. (2016). Stress in owned cats: behavioural changes and welfare implications. *Journal of feline medicine and surgery*, 18 (8), 577–586. <https://doi.org/10.1177/1098612X15590867>
- Andersson M., Axén C., Lakic B., Blom I., Chenais E., Persson Y., Seligsohn D., Lindvall Wetter K., Windahl U. (2025). SVA: s vaccinberedskap för djur och näringens behov. SVA: s rapportserie 118. SVA. <https://www.sva.se/media/ejkhgaqy/svas-vaccinberedskap-foer-djur-och-naeringens-behov.pdf>
- Awawdeh, L., Waran, N., Pearson, M. & Forrest, R. (2026). Surveying pet owners' attitudes towards roaming cats in Aotearoa New Zealand. *New Zealand veterinary journal*, 74 (1), 29–37. <https://doi.org/10.1080/00480169.2025.2542377>
- Bir, Courtney, Widmar, Nicole and Croney, Candace (2016). The Whole “Kitten”-Caboodle: Perceived Differences in Veterinary and General Population Opinions Regarding Cat Behavior and Health. *Open Journal of Veterinary Medicine*, 06, p. 177–192, <https://doi:10.4236/ojvm.2016.612021>
- Casey, R.A., Vandenbussche, S., Bradshaw, J.W.S. & Roberts, M.A. (2009). Reasons for relinquishment and return of domestic cats (*Felis Silvestris Catus*) to rescue shelters in the UK. *Anthrozoös*, 22 (4), 347–358. <https://doi.org/10.2752/089279309x12538695316185>
- Da Graça Pereira, G., Fragoso, S., Morais, D., Villa de Brito, M.T. & de Sousa, L. (2014). Comparison of interpretation of cat's behavioral needs between veterinarians, veterinary nurses, and cat owners. *Journal of veterinary behavior*, 9 (6), 324–328. <https://doi.org/10.1016/j.jveb.2014.08.006>
- Delgado, M. & Dantas, L.M.S. (2020). Feeding Cats for Optimal Mental and Behavioral Well-Being. *The Veterinary clinics of North America. Small animal practice*, 50 (5), 939–953. <https://doi.org/10.1016/j.cvsm.2020.05.003>
- Driscoll, C.A., Menotti-Raymond, M., Roca, A.L., Hupe, K., Johnson, W.E., Geffen, E., Harley, E.H., Delibes, M., Pontier, D., Kitchener, A.C., Yamaguchi, N., O'Brien, S.J. & Macdonald, D.W. (2007). Near Eastern Origin of Cat Domestication. *Science (American Association for the Advancement of Science)*, 317 (5837), 519–523. <https://doi.org/10.1126/science.1139518>
- Dunnett, J., Holkham, J., Trebacz, A., Baldasera, C., Francis, C., Dawson, L., Swiers, R. & Christie-de-Jong, F. (2025). Effectiveness and acceptability of interventions to improve readability of patient healthcare materials: A narrative systematic review. *Public health (London)*, 248. <https://doi.org/10.1016/j.puhe.2025.105937>
- Ellis, S.L.H., Rodan, I., Carney, H.C., Heath, S., Rochlitz, I., Shearburn, L.D., Sundahl, E. & Westropp, J.L. (2013). AAFP and ISFM Feline Environmental Needs Guidelines. *Journal of feline medicine and surgery*, 15 (3), 219–230. <https://doi.org/10.1177/1098612X13477537>

- Ellis, J. J., Janke J. K., Furgala M. N., Bridge T. (2025). Post-Adoption Behavior and Adopter Satisfaction of Cats Across Socialization Likelihoods. *Journal of shelter medicine & community animal health*, 4(1). <http://10.56771/jsmcah.v4.116>
- Ellis, J.J., McGowan, R.T.S. & Martin, F. (2017). Does previous use affect litter box appeal in multi-cat households? *Behavioural processes*, 141 (Pt 3), 284–290. <https://doi.org/10.1016/j.beproc.2017.02.008>
- Fragoso, S. (2020). Shelter Cats: From Admission to Adoption-Ethical and Welfare Concerns. *Journal of applied animal ethics research*, 2 (1), 57–67. <https://doi.org/10.1163/25889567-12340015>
- Gagen, D.M. & Kreps, G.L. (2019). An Examination of the Clarity of Government Health Websites Using the Centers for Disease Control and Prevention’s Clear Communication Index. *Frontiers in communication*, 4. <https://doi.org/10.3389/fcomm.2019.00060>
- Gazzano, A., Bianchi, L., Campa, S. & Mariti, C. (2015). The prevention of undesirable behaviors in cats: Effectiveness of veterinary behaviorists’ advice given to kitten owners. *Journal of Veterinary Behavior: Clinical Applications and Research*, 10 (6), 535–542. <https://doi.org/10.1016/j.jveb.2015.07.042>
- Grigg, E.K. & Kogan, L.R. (2019). Owners’ Attitudes, Knowledge, and Care Practices: Exploring the Implications for Domestic Cat Behavior and Welfare in the Home. *Animals (Basel)*, 9 (11). <https://doi.org/10.3390/ani9110978>
- Hirsch, E.N., Geijer, J. & Andersson, M. (2022). Owner Perceived Behavior in Cats and the Influence of Husbandry Practices, Housing and Owner Attitudes in Sweden. *Animals (Basel)*, 12 (19), 2664. <https://doi.org/10.3390/ani12192664>
- Jensen, J.B.H., Sandøe, P. & Nielsen, S.S. (2020). Owner-Related Reasons Matter more than Behavioural Problems—A Study of Why Owners Relinquished Dogs and Cats to a Danish Animal Shelter from 1996 to 2017. *Animals (Basel)*, 10 (6), 1064. <https://doi.org/10.3390/ani10061064>
- Jensen, M.B. & Pedersen, L.J. (2008). Using motivation tests to assess ethological needs and preferences. *Applied animal behaviour science*, 113 (4), 340–356. <https://doi.org/10.1016/j.applanim.2008.02.00>
- Kessler, M.R. & Turner, D.C. (1997). Stress and Adaptation of Cats (*Felis Silvestris* Catus) Housed Singly, in Pairs and in Groups in Boarding Catteries. *Animal welfare*, 6 (3), 243–254. <https://doi.org/10.1017/S0962728600019837>
- Kremen N. A., Calvert C. C., Larsen J. A., Baldwin R. A., Hahn T. P., Fascetti A. J. (2013). Body composition and amino acid concentrations of select birds and mammals consumed by cats in northern and central California. *Animal Science*, 31, 1270-1276. <http://doi.org/10.2527/jas.2011-4503>
- Laflamme, D.P. (2020). Understanding the Nutritional Needs of Healthy Cats and Those with Diet-Sensitive Conditions. The Veterinary clinics of North America. *Small animal practice*, 50 (5), 905–924. <https://doi.org/10.1016/j.cvsm.2020.05.001>

- Laflamme, D. & Gunn-Moore, D. (2014). Nutrition of Aging Cats. The Veterinary clinics of North America. *Small animal practice*, 44 (4), 761–774.
<https://doi.org/10.1016/j.cvsm.2014.03.001>
- Machado, D. de S., Vicentini, R.R., Gonçalves, L. da S., Luchesi, S., Otta, E. & Sant’Anna, A.C. (2025). Unraveling Feline Myths: A Review About Misperceptions and Beliefs Surrounding Domestic Cat Behavior. *Pets*, 2 (3).
<https://doi.org/10.3390/pets2030032>
- Metzger, M.J. & Flanagan, A.J. (2013). Credibility and trust of information in online environments: The use of cognitive heuristics. *Journal of pragmatics*, 59 (Part B), 210–220. <https://doi.org/10.1016/j.pragma.2013.07.012>
- Novus, 2024, <https://novus.se/nyheter/2024/11/katten-sveriges-popularaste-sallskapsdjur/> [2026-02-04]
- O’Hanley, K.A., Pearl, D.L. & Niel, L. (2021). Risk factors for aggression in adult cats that were fostered through a shelter program as kittens. *Applied animal behaviour science*, 236. <https://doi.org/10.1016/j.applanim.2021.105251>
- Overall, K.L., Rodan, I., Beaver, B.V., Carney, H., Crowell-Davis, S., Hird, N., Kudrak, S. & Wexler-Mitchel, E. (2005). Feline behavior guidelines from the American Association of Feline Practitioners. *Journal of the American Veterinary Medical Association*, 227 (1), 70–80. <https://doi.org/10.2460/javma.2005.227.70>
- Patronek, G.J., Purdue U., Glickman, L.T., Beck, A.M., McCabe, G.P. & Ecker, C. (1996). Risk factors for relinquishment of cats to an animal shelter. *Journal of the American Veterinary Medical Association*, 209 (3), 582–588.
<https://doi.org/10.2460/javma.1996.209.03.582>
- Plantinga, E.A., Bosch, G. & Hendriks, W.H. (2011). Estimation of the dietary nutrient profile of free-roaming feral cats: possible implications for nutrition of domestic cats. *British journal of nutrition*, 106 (S1), S35–S48.
<https://doi.org/10.1017/S0007114511002285>
- Powell, L., Watson, B. & Serpell, J. (2023). Understanding feline feelings: An investigation of cat owners’ perceptions of problematic cat behaviors. *Applied animal behaviour science*, 266. <https://doi.org/10.1016/j.applanim.2023.106025>
- Qureshi, A.I., Memon, M.Z., Vazquez, G. & Suri, M.F.K. (2009). Cat ownership and the Risk of Fatal Cardiovascular Diseases. Results from the Second National Health and Nutrition Examination Study Mortality Follow-up Study. *Journal of vascular and interventional neurology*, 2 (1), 132–135
- Randell, R.L., Wilson, H.P., Ragavan, M.I., Collins, A.B., Vail, J., Ramirez, S., Amodei, J., Mickiewicz, E., Krieger, M.S., Macon, E.C. & Hornik, C.P. (2025). Communicating Health Research With Plain Language. *Inquiry (Chicago)*, 62, 469580251357755. <https://doi.org/10.1177/00469580251357755>
- Riera, R., de Oliveira Cruz Latorraca, C., Padovez, R.C.M., Pacheco, R.L., Romão, D.M.M., Barreto, J.O.M., Machado, M.L.T., Gomes, R., da Silva, S.F. & Martimbianco, A.L.C. (2023). Strategies for communicating scientific evidence on

- healthcare to managers and the population: a scoping review. *Health research policy and systems*, 21 (1). <https://doi.org/10.1186/s12961-023-01017-2>
- Rochlitz, I. (1999). Recommendations for the housing of cats in the home, in catteries and animal shelters, in laboratories and in veterinary surgeries. *Journal of feline medicine and surgery*, 1, 181-191. [10.1016/S1098-612X\(99\)90207-3](https://doi.org/10.1016/S1098-612X(99)90207-3)
- Rochlitz, I. (2005). A review of the housing requirements of domestic cats (*Felis silvestris catus*) kept in the home. *Applied animal behaviour science*, 93 (1), 97–109. <https://doi.org/10.1016/j.applanim.2005.01.002>
- Sadek, T., Hamper, B., Horwitz, D., Rodan, I., Rowe, E. & Sundahl, E. (2018). Feline feeding programs: Addressing behavioural needs to improve feline health and wellbeing. *Journal of feline medicine and surgery*, 20 (11), 1049–1055. <https://doi.org/10.1177/1098612X18791877>
- Sbaffi, L. & Rowley, J. (2017). Trust and Credibility in Web-Based Health Information: A Review and Agenda for Future Research. *Journal of medical Internet research*, 19 (6). <https://doi.org/10.2196/jmir.7579>
- SFS 2018:1192. (2018) *Djurskyddslag. Ministry of rural Affairs and Infrastructure* (Swedish government)
- Shah, Z. & Wei, L. (2022). Source Credibility and the Information Quality Matter in Public Engagement on Social Networking Sites During the COVID-19 Crisis. *Frontiers in psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.882705>
- Shastak, Y. & Pelletier, W. (2024). Pet Wellness and Vitamin A: A Narrative Overview. *Animals* (Basel), 14 (7). <https://doi.org/10.3390/ani14071000>
- SJVFS 2019:28. (2019) *Jordbruksverkets föreskrifter och allmänna råd om hållande av hundar och katter [The Swedish Board of Agriculture's regulations and general advice on the keeping of dogs and cats]* (Jönköping. Sweden: Swedish Board of Agriculture).
- SJVFS 2020:8. (2020) *Jordbruksverkets föreskrifter och allmänna råd om hållande av hundar och katter [The Swedish Board of Agriculture's regulations and general advice on the keeping of dogs and cats]* (Jönköping. Sweden: Swedish Board of Agriculture).
- SJVFS 2019:15. (2019) *Jordbruksverkets föreskrifter och allmänna råd om villkor för hållande, uppfödning och försäljning m.m av djur avsedda för sällskap och hobby [The Swedish Board of Agriculture's regulations and general advice on the keeping, breeding and sale etc. of animals intended for companionship and hobby purposes]* (Jönköping. Sweden: Swedish Board of Agriculture)
- Stella, J.L. & Croney, C.C. (2016). Environmental Aspects of Domestic Cat Care and Management: Implications for Cat Welfare. De Godoy, M.R.C. (ed.) (De Godoy, M. R. C., ed.) *TheScientificWorld*, 2016 (2016). <https://doi.org/10.1155/2016/6296315>
- Strickler, B.L. & Shull, E.A. (2014). An owner survey of toys, activities, and behavior problems in indoor cats. *Journal of veterinary behavior*, 9 (5), 207–214. <https://doi.org/10.1016/j.jveb.2014.06.005>

- Tampubolon, M. (2025). Decoding Legal Ambiguity: the Interplay between Law and Legal Semiotics in Modern Jurisprudence. *International journal for the semiotics of law = Revue internationale de sémiotique juridique*,. <https://doi.org/10.1007/s11196-025-10271-2>
- Trevizan, L., de Mello Kessler, A., Brenna, J.T., Lawrence, P., Waldron, M.K. & Bauer, J.E. (2012). Maintenance of Arachidonic Acid and Evidence of $\Delta 5$ Desaturation in Cats Fed γ -Linolenic and Linoleic Acid Enriched Diets. *Lipids*, 47 (4), 413–423. <https://doi.org/10.1007/s11745-011-3651-0>
- Turner, D.C. & Rieger, G. (2001). Singly Living People and Their Cats: A Study of Human Mood and Subsequent Behavior. *Anthrozoös*, 14 (1), 38–46. <https://doi.org/10.2752/089279301786999652>
- Verbrugghe A. & Bakovic M. (2013). Peculiarities of One-Carbon Metabolism in the Strict Carnivorous Cat and the Role in Feline Hepatic Lipidosis. *Nutrients*, 5 (7), 2811–2835. <https://doi.org/10.3390/nu5072811>
- Wagner, D., Hurley, K. & Stavisky, J. (2018). Shelter housing for cats: Principles of design for health, welfare and rehoming. *Journal of feline medicine and surgery*, 20 (7), 635–642. <https://doi.org/10.1177/1098612X18781388>
- Windahl U. & Ingman J. (2009). Grundvaccination av hund och katt. Sveriges veterinärmedicinska anstalt. https://www.sva.se/media/vzv320u/grundvacc_2009.pdf
- Wojtaś, J., Czyżowski, P., Kaszycka, K., Kaliszyk, K. & Karpiński, M. (2024). The Impact of Environmental Enrichment on the Cortisol Level of Shelter Cats. *Animals (Basel)*, 14 (9). <https://doi.org/10.3390/ani14091392>
- Yamane, A., Emoto, J. & Ota, N. (1997). Factors affecting feeding order and social tolerance to kittens in the group-living feral cat (*Felis catus*). *Applied animal behaviour science*, 52 (1), 119–127. [https://doi.org/10.1016/S0168-1591\(96\)01101-X](https://doi.org/10.1016/S0168-1591(96)01101-X)

Popular science summary

Many people adopt cats from shelters or rehoming organizations. For many new owners, the organization may also be their main source of information about how to care for a cat. This study assessed what kind of information Swedish cat shelters and rehoming organizations provide, and whether that information matches current scientific knowledge about cats. The results show that most organizations do provide information, but it is not evenly spread across topics related to cat behavior and welfare. Information about health, such as vaccinations and insurance, is common. However, information about cats' behavior and their need for a suitable environment is often more limited and less detailed. This is important, since these factors play a large role in a cat's wellbeing and in the relationship between the cat and its owner. The study also found that more detailed information was more likely to be correct and in line with scientific knowledge. At the same time, references and sources were rare, which can make it harder for new cat owners to know where the information comes from and how reliable it is. Overall, the results suggest that while shelters and rehoming organizations provide useful information, it is often not sufficient enough to include all information needed about feline management and needs to new cat owners. This means that new cat owners may need to look for additional information elsewhere to fully understand how to care for their cat. Improving both the amount and quality of information – especially about behavior and environment – could help support better cat welfare and more successful adoptions.

Appendix 1.

Key words in Swedish (original language) and the translation to English.

Key word Swedish	Key word English
Förmedlar	Acts as an intermediary
Omplacerar	Re-homes
Omplaceringsverksamhet	Re-homing operations
Adoption	Adoption
Sälja från annans uppfödning	Sell animals bred by another party
Försälja	Selling
Överlåtelse	Transfer of ownership
Jourhem	Foster home
Akuthem	Emergency foster home
Stödhem	Support foster home

Appendix 2

Number of cat shelters and rehoming organizations, together with number of reviewed websites and Facebook profiles, per County Administrative Board included in the study. Numbers in parenthesis indicate organizations included in the total count but not identified in the initial information provided by the County Administrative Boards.

County Administrative Board	Organizations	Websites	Facebook Profiles
Blekinge	5	3	2
Dalarna	6 (2)	5	1
Gotland	1		1
Gävleborg	5 (1)	5	
Halland	3	3	
Jämtland	1	1	
Jönköping	6 (1)	6	
Kalmar	5 (2)	4	1
Kronoberg	5	2	3
Norrbottn	1	1	
Skåne	15 (1)	11	4
Stockholm	12 (4)	12	
Södermanland	5	5	
Uppsala	5 (1)	3	2
Värmland	4 (3)	4	
Västerbotten	4 (1)	4	
Västernorrland	6	5	1
Västermanland	3	3	
Västra Götaland	23	19	4
Örebro	5	4	1
Östergötland	5	4	1
Total amount	125 (16)	104	21

Appendix 3

Swedish category names and descriptions used in the coding framework.

Category	Description
Social omgivning	Information som rör kattens individuella behov av social interaktion, förutsägbarhet och relationer till människor och eventuellt andra djur
Säkra sov-/viloplatser	Information om tillgång till trygga, ostörda och lämpligt placerade platser för vila och sömn.
Mat och vatten	Information om tillgång, hantering och placering av mat och vatten
Kattspezifisk diet	Information om näringsbehov och utfodring som är specifika för kattens fysiologi
Kattlåda	Information om tillgång till, placering och skötsel av kattlåda
Klösmöjligheter	Information om kattens behov av att klösa samt tillgång till lämpliga klösmöjligheter
Lek- och jaktbeteende	Information om behovet av lek och möjligheter att uttrycka naturliga jaktrelaterade beteenden
Fysisk omvårdnad	Information om grundläggande kroppslig omvårdnad, såsom pälsvård, kloklippning och kontroll av öron och tänder
Anpassning till nytt hem	Information om åtgärder som kan underlätta vid kattens anpassning till ett nytt hem och nya rutiner
Märkning	Information om identifiering av katt genom ID-märkning
Registrering	Information om registrering av katt hos Jordbruksverket
Vaccination	Information om vaccination som en del av kattens hälsovård
Fortplantningskontroll	Information om åtgärder för att förhindra oönskad fortplantning, såsom kastrering eller andra metoder
Preventiv veterinärvård	Information om förebyggande veterinärmedicinska åtgärder för att främja god hälsa och välfärd
Försäkring	Information om möjligheten och fördelen med att försäkra katten och vad detta kan innebära
Källhänvisning	JA om förekomst av explicita hänvisningar till källor i den löpande informationstexten finns. Annars NEJ.
Hänvisar vidare	Om hänvisning finns till externa källor fylls JA i samt relevant länk

Appendix 4

Original Swedish version of the information (I) coding scale and criteria.

Kodning (I)	Kriterier
0	Området nämns inte alls
1	Begränsad information. Minst en av följande: ▪ Endast generell formulering ▪ Inga motiveringar ▪ Inga praktiska råd ▪ Endast uppräknning av ett eller flera behov
2	Tydlig och utvecklad information. Minst två av följande: ▪ Förklarar vad som behövs ▪ Förklarar varför ▪ Förklarar hur de ska tillämpas ▪ Kopplar till välfärd, hälsa och/eller beteende

Original Swedish version of the scientific alignment (V) coding rules.

Kodning (V)	Beslutsregler
N/A	Ej tillämplig (non-applicable)
0	C = Ja
1	Generell information är korrekt men saknar nyanser; viss information kan vara föråldrad eller alltför generell.
2	A och/eller B = Ja och C = Nej

Original Swedish version of the scientific alignment (V) coding criteria.

Kategori	Kriterier
Social omgivning	A. Erkänns kattens behov av att kunna undvika social kontakt? B. Framställs social samvaro som individberoende snarare än generell? C. Beskrivs katter som flockdjur som alltid bör hållas i grupp?
Säkra sov-/vilo platser	A. Nämns behov av avskilda eller skyddade viloplatser? B. Erkänns behov av att kunna dra sig undan ostört? C. Förnekas behovet av gömställen eller vila i avskildhet?
Mat och vatten	A. Erkänns behov av fri tillgång till vatten?

Kategori	Kriterier
	B. Nämnas placering eller flera resurser vid flerkatthushåll?
	C. Förespråkas enbart gemensam resurs utan alternativ?
Kattspezifisk diet	A. Beskrivs katten som obligat karnivor?
	B. Erkänns behov av animaliskt protein/essentiella näringsämnen?
	C. Förekommer råd som motsäger detta (t.ex. vegansk/vegetarisk kost)?
Kattlåda	A. Rekommenderas flera kattlådor?
	B. Nämnas placering (avskilt från mat och vatten)?
	C. Förekommer råd som direkt strider mot detta?
Klösmöjligheter	A. Erkänns klösning som ett naturligt beteende?
	B. Föreslås vertikala klösytor för hela kattens längd
	C. Föreslås bestraffning eller förbud mot klösning?
Lek och jaktbeteende	A. Erkänns jakt- och lekbeteende som grundläggande behov?
	B. Nämnas behov av stimulans även hos innekatter?
	C. Påstås att lek är onödig om katten får mat?
Fysisk omvårdnad	A. Erkänns behov av rutinmässig skötsel (päls, klor etc.)?
	B. Kopplas omvårdnad till hälsa eller välfärd?
	C. Förnekas behovet av fysisk omvårdnad?
Anpassning till nytt hem	A. Rekommenderas avskild del av hemmet?
	B. Rekommenderas gradvis introduktion?
	C. Förnekas behov av anpassningsperiod?
Vaccination	A. Erkänns vaccination som förebyggande hälsovård?
	B. Nämnas skydd mot smittsamma sjukdomar?
	C. Påstås vaccination vara onödig generellt för innekatter?
Fortplantningskontroll	A. Erkänns behov av att förhindra okontrollerad reproduktion?
	B. Rekommenderas kastrering?
	C. Föreslås att släppa ut en okastrerad katt utan preventiv metod?
Preventiv veterinärvård	A. Rekommenderas regelbundna veterinärbesök?

Kategori	Kriterier
Försäkring	B. Kopplas förebyggande vård till hälsa och/eller välfärd?
	C. Framställs veterinärvård endast som akut åtgärd?
	A. Erkänns att veterinärvård kan innebära ekonomisk belastning?
	B. Kopplas försäkring till möjlighet att söka vård?
	C. Försäkring nämns inte

Original Swedish version of the legal requirements (L) coding scale and criteria.

Kodning (L)	Beslutsregler
N/A	Ej tillämplig (non-applicable)
0	Informationen strider mot eller uppfyller inte gällande lagstiftning
1	Informationen är förenlig med gällande lagstiftning

Appendix 5

Table A. Distribution of scientific alignment (V) across categories on organization websites (n = 104). Values represent the number and percentages of websites coded as contradicting scientific references (V = 0), partially aligned with scientific references (V = 1), or fully aligned with the defined scientific criteria (V = 2).

Category	V = 0	V = 0	V = 1	V = 1	V = 2	V = 2
		(%)		(%)		(%)
Social environment	3	2,9%	34	32,7%	7	6,7%
Safe resting and sleeping areas	1	1,0%	9	8,7%	7	6,7%
Food and water	0	0,0%	16	15,4%	8	7,7%
Cat-specific diet	2	1,9%	12	11,5%	4	3,8%
Litter box	1	1,0%	16	15,4%	6	5,8%
Scratching opportunities	0	0,0%	12	11,5%	11	10,6%
Play and predatory behavior	0	0,0%	14	13,5%	5	4,8%
Physical care	0	0,0%	3	2,9%	8	7,7%
Adjustment to a new home	0	0,0%	3	2,9%	8	7,7%
Vaccination	0	0,0%	64	61,5%	21	20,2%
Reproductive control	1	1,0%	68	65,4%	17	16,3%
Preventative veterinary care	5	4,8%	13	12,5%	6	5,8%
Insurance	0	0,0%	27	26,0%	25	24,0%

Table B. Distribution of scientific alignment (V) across categories for additional written information handed out at adoption from cat shelters (n = 34). Values represent the number and percentages of additional information coded as contradicting scientific references (V = 0), partially aligned with scientific references (V = 1), or fully aligned with the scientific references (V = 2).

Category	V = 0	V = 0 (%)	V = 1	V = 1 (%)	V = 2	V = 2 (%)
Social environment	1	2,9%	6	17,6%	2	5,9%
Safe resting and sleeping areas	0	0,0%	5	14,7%	3	8,8%
Food and water	2	5,9%	10	29,4%	5	14,7%
Cat-specific diet	1	2,9%	8	23,5%	3	8,8%
Litter box	0	0,0%	7	20,6%	6	17,6%
Scratching opportunities	0	0,0%	3	8,8%	6	17,6%
Play and predatory behavior	0	0,0%	7	20,6%	4	11,8%
Physical care	0	0,0%	8	23,5%	2	5,9%
Adjustment to a new home	0	0,0%	10	29,4%	9	26,5%
Vaccination	1	2,9%	14	41,2%	12	35,3%
Reproductive control	0	0,0%	23	67,6%	5	14,7%
Preventative veterinary care	1	2,9%	2	5,9%	4	11,8%
Insurance	0	0,0%	15	44,1%	13	38,2%

Table C. Mean proportion of in-depth information (I = 2) and strong scientific alignment (V = 2) across behavioral/environmental, medical, and regulatory category groups based on organizations websites (n = 104).

Category	Mean % I = 2	Mean % V = 2
Behavioral/Environmental	7,9%	6,8%
Medical	17,1%	16,6%
Regulatory	18,3%	N/A

Table D. Mean proportion of in-depth information (I = 2) and strong scientific alignment (V = 2) across behavioral/environmental, medical, and regulatory category groups based on additional written information (n = 34).

Category	Mean % I = 2	Mean % V = 2
Behavioral/Environmental	14,4%	13,1%
Medical	26,5%	25,0%
Regulatory	30,4%	N/A

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