

Disposable Pets: Exploration into the Relinquishment of Unwanted Reptiles

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Exploratory Study on the Relinquishment of Unwanted Pet Reptiles

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Abstract

The purpose of this study was to gain a better understanding of the unwanted pet reptile population in the United States with the future goal of helping shelters prepare for incoming reptiles and educating the public about responsible reptile ownership. This was accomplished through exploration into what species were admitted, the reasons for intake, differences between relinquishment of dogs, cats, and reptiles, as well as the fate of admitted reptiles by analyzing the databases of five sheltering organizations and interviewing of shelter employees.

Findings from the current study revealed that reptiles are an increasing face in shelters. The most commonly surrendered species were iguanas and turtles, but also included snakes, alligators, and amphibians. The major reasons for relinquishment to the shelters were that the owners were no longer interested in the animal or that they were moving and unable to take the animal with them. These reasons were similar to the main reasons for relinquishment of dogs, who were surrendered mainly due to lack of time or because the owner was moving. The main reason for cat relinquishment was because the owner had too many of them. Overall, it appears that whichever the specific reason for relinquishment, pets are surrendered because owners simply do not want the continued responsibility of taking care of the animal. Outcomes of reptiles admitted to shelters were generally positive, as most of them were transferred to sanctuaries or were adopted into private homes.

Due to welfare concerns of reptiles in the pet trade, laws should be implemented to enforce proper care, and public policy improvements should be made to increase public awareness of the true requirements and responsibilities of reptile ownership.

Introduction

Companion animals play an integral role in society and are frequently considered by their owners to be members of the family. Needless to say, not every animal is treated with that same love and respect nor maintained in the proper environment. Millions of unwanted animals are brought to shelters, euthanized, or abandoned each year. Pet reptiles are no exception. While studies on the reasons for relinquishment of cats and dogs have just begun to take place over the last decade or so, the data remains limited and sporadic due to the non-cohesive nature of animal shelters in the United States. What then of the other species of animals? Do reptiles share the same risk-factors for relinquishment as cats and dogs? Where do the unwanted reptiles end up? Due to the severely limited nature of publications on the subject of unwanted reptiles, this exploratory study will first address other areas of interest that may provide insight into the problem. Relevant literature about domestication, the human-animal bond, difficulty faced in caring for reptiles, the reptile trade, and relinquishment of other companion animals has been examined in order to gain a better understanding of reptiles as “disposable” pets, and will be discussed below.

Domestication

Domestication can be described as the process of animals adapting to live with humans in captive environments, in what can be considered a symbiotic relationship. While cats and dogs have been human companions for centuries, reptiles have not undergone the same long process. Edward Price’s *Behavioral Aspects of Animal Domestication* examines the behavioral characteristics that aid in the evolutionary

process of domestication. He claims that different species have certain preadaptations that make them more likely to be domesticated and discusses the questions of animal welfare that arise from this process. The primary question he asks is whether our common domestic animals are capable of adapting successfully to certain artificial environments and management practices that may be inhumane (Price, 1984). He goes on to describe that due to financial and other constraints, people may not provide adequate environments in terms of climate, shelter, and space. Price's work brings up a common theme throughout the literature: providing the proper environment and care for reptiles in captivity is a struggle. Although Price's article does not specifically address the issue of reptiles in captivity, it is helpful in addressing certain problems with trying to keep wild animals as pets. This is supported by research conducted on pet ownership, pet health, and relationships between owners and their pets by the Blue Cross, which is a United Kingdom based animal welfare organization. A national survey indicated that almost half of all reptile owners surveyed had experienced unexpected problems with their pets and had difficulty fitting reptiles into their lifestyle (Veterinary Record, 2005).

In a more philosophical piece, Stephen Budiansky describes why certain animals choose domestication. He claims that domestication of animals is not an act of exploitation but a brilliantly successful evolutionary strategy that has benefited humans and animals alike (Budiansky, 1992). One example provided is the overlapping of social structures. He argues that the natural instinct for dogs, cattle, and horses to groom one another is an area where human and animal social structures overlap, making acceptance of each other more feasible. While Budiansky may have some significant points on the relationships between humans and other mammals based on anthropological studies, I

don't think that his inferences can cross the border to reptiles. He doesn't fully support his claims in terms of species that do not relate well to human social patterns and are kept as pets, such as birds, for example. The keeping of reptiles appears to be an act of exploitation rather than an evolutionary strategy, as the animals themselves have made no attempt to connect with humans, and their capture for the pet industry is almost always for profit.

The Human-Animal Bond

People's relationships with their pets typically involve large amounts of physical contact and intimacy. Robinson (1995) argues that relationships are facilitated by "similarities in the social and communication systems of the interacting species". Due to the more primitive nature of reptiles, he claims that human's relationships with them are primarily one-way; "the non-human participant interacts but does not form a relationship" (Robinson, 1995). However, due to the popularity of these pets, Robison suggests that owners must be deriving some sort of satisfaction from the relationship. However, he leaves the door open to just what that satisfaction may be. A similar view is presented in Barbara Burn's *Guide to Impractical Pets*. While she endorses the keeping of certain reptiles as pets, she warns readers not to expect much bonding, as many of them do not like to be handled (Burn, 1997). She suggests that they make better pets to observe.

To further the discussion of the human-animal bond, Serpell (1986) discusses the ability of humans to generalize beyond the boundaries of their own species. Anthropomorphism, the habit of attributing human characteristics to animals and other

nonliving things, is a normal and immediate response of most people to animals (Serpell, 1986). This explains to some degree why so many people see their pets as part of the family, and therefore why they are treated with the same code of human morality. However, Serpell points out that the anthropomorphizing of pets depends greatly on the species involved. He claims that animals that resemble humans behaviorally and physically evoke sympathetic reactions and treatment from humans, such animals with large eyes and exaggerated facial features (Serpell, 1986). Psychologically, the closer the animals are to humans, the harder it is to remain detached from them. People have fewer inhibitions about killing fish as opposed to warm-blooded mammals (Serpell, 1986). This bias constitutes a hierarchy in which some species are valued more than others.

Likewise, researcher Elizabeth Hirschman found in her qualitative studies of consumers and their companion animals that pets are placed in what she calls a cultural hierarchy (Hirschman, 1994). The cold-blooded vertebrates such as fish, reptiles, and amphibians occupy the lowest rung of the ladder; while the most anthropomorphized (dogs and cats) occupy the highest (Hirschman, 1994). She found that the lower-end animals were more likely to be objectified, commoditized, and tossed out when no longer of use or wanted. These ideas provide insight into the issue of unwanted pet reptiles. Since they are a “lower” species, people may not consider abandoning them such a moral problem. Specieism, the theory of assigning different values and rights to beings based on their species membership, is suggested in the majority of the readings and seems to be an essential component in determining the way in which pet reptiles are treated.

Another insight derived from the article was the various roles animals play in consumer’s lives. Generally speaking, the roles of kept animals can be divided into two

broad categories, animals as companions, and animals as object/products (Hirschman, 1994). Based on Hirschman's explanation of the cultural hierarchy, it can be concluded that many reptiles fall into the category of object/product. This category is further broken down into animals as ornaments, status symbols, avocation, and equipment. In order to understand why so many reptiles are relinquished or abandoned, it is imperative to first understand why people are choosing to keep them as pets in the first place.

Caring for Reptiles

As reptiles have become increasingly popular additions to families and a fast growing hobby of enthusiasts, so too, has the information about proper reptile husbandry increased. However, these additions to knowledge have been accompanied by "revelations emphasizing the intricacies of reptilian biology and, further, the needs of the individual...In effect, the more that is learnt about reptiles, the more apparent become the potential deficiencies associated with their lives in captivity" (Warwick, Frye, and Murphy, 1995). Reptiles require control of a wide range of factors in captive environments such as heat, humidity, light, and nutrition, making them very difficult pets to properly care for. Warwick et al. explain that although people are consistently learning more about the needs of these creatures, much of what is known falls short and is largely based on human-perceived factors (Warwick, Frye, and Murphy, 1995). These revelations show the great need to learn more about a species before deciding to keep them as pets.

Due to the lack of information regarding the specific needs of the many species of reptiles owned as pets, it is no surprise that the most common reason for illness among

reptiles is due to inappropriate husbandry (Gosden, 2004). Recognition of normal and abnormal behaviors can alert practitioners of a medical problem at an earlier stage, but most owners have no idea what to look for (Bays et al., 2006). Compounding the problem of uneducated owners is the lack of knowledge of veterinary care providers. Since veterinary practices generally only treat reptiles on the rare occasion, there is not much incentive for practitioners to spend a lot of time and money to research problems with reptiles in captivity (Gosden, 2004). This explains why many people experience health issues with their reptiles that may not be able to be solved by taking the animal to a veterinarian. An untreatable or unexplainable illness or behavior problem might be an incentive to give up a pet.

An even more substantial issue that contributes to the lack of proper care of a reptile is that the buyer often does not know what they are getting themselves into when they purchase an animal. Frequently animals are purchased from pet shops at a low cost if you buy a tank and a light fixture. Employees may not know, or may not tell customers information about the proper care of the animal and problems that will arise at different life stages. The green iguana, for example, is one of the most popular pets in the United States. Purchased as babies or juveniles, they are fascinating and have a lot of appeal. However, if the animal survives, it can reach over six feet long as an adult, and be highly aggressive at sexual maturity (Burn, 1997). Fear of an animal's behavior provides a strong incentive to give the animal up. In addition to temperament issues, economic constraints will often inhibit people from properly providing for their animal. This also brings up questions of policy, such as, should pet stores be responsible for providing

accurate information about the animals they sell, or is learning about the reptile purely the responsibility of the purchaser?

Relinquishment of Other Companion Animals

Since the mid 1900's, the surplus of unwanted companion animals in the United States has been a major concern of the animal welfare community, as it results in the euthanasia of millions of animals each year. Some research has been conducted to look at the causes for this problem. One of the earliest studies examined the human and animal factors related to the relinquishment of dogs and cats in twelve selected animal shelters in the United States (Salman et. al, 1998). Shelters were selected by principal investigators in four regions who tried to represent urban, suburban, and rural areas. A personal interview form was designed to be completed by people surrendering their cats and dogs which asked questions pertaining to the owner's reasons and demographics, and information about the individual animal. Results concluded that most of the dogs relinquished to shelters were initially obtained from family and friends at no charge, and had most likely been relinquished because of lifestyle changes, such as moving, or because of behavioral problems. While this study represents the beginning of systematic data collection to examine the factors that produce the pet surplus, it is not a comprehensive national sample, and demonstrates the need for further investigation.

A number of the same investigators examined selected health and personal issues that could explain human reasons for pet relinquishment (Scarlett et. al, 1999). They found that the top three health and personal issues cited for giving up cats were allergies, owner's personal problems, and a new baby. As for dogs, the top three reasons

respectively were lack of time for the dog, owner's personal problems, and allergies. Owner's personal problems varied, but were commonly events such as births or deaths, or circumstances such as a new job or the need to travel. Data also showed that there was a high turnover of animals in some of the households, which researchers believed to suggest a lack of stability in the human-animal bond (Scarlett et. al, 1999). Another study looked at the characteristics of shelter-relinquished animals and their owners compared to animals and their owners in pet-owning households. The authors concluded that relinquishment is associated with the physical and behavioral characteristics of the animals as well as the characteristics, knowledge, experience, and expectations of the owners (Kass et. al, 2000). Reasons are further complicated by external factors such as changes in income, health, or location (Kass et. al, 2000). These explorations represent important descriptive studies of shelter relinquishments that can be useful in identifying key risk factors for cats and dogs. How effectively these studies pertain to other household pets is yet to be determined.

The Reptile Trade

One of the most comprehensive texts published on the reptile trade is *Reptiles as Pets: An Examination of the Trade in Live Reptiles in the United States*. Commissioned by the Humane Society of the United States, the report reviews the available information about a largely unstudied, but increasingly significant, segment of the pet industry: reptiles (Franke & Telecky, 2001). The review aimed to describe “implications for the humane treatment of reptiles that are traded and kept as pets, the conservation of reptile populations in the wild, and the health of humans, wildlife, and agricultural animals”

(Franke & Telecky, 2001). In summary, the practice of taking reptiles from the wild or breeding them in captivity has brought into the limelight significant concerns regarding humane treatment, over-collection, habitat destruction, introduction of non-native species, smuggling and policy issues, as well as health concerns to humans. Due to the comprehensiveness of the work, in this paper I will only be examining the entries specifically addressing reptile owners and what happens to the unwanted reptiles.

It is estimated that approximately 3.9 million U.S. households owned some nine million reptiles and amphibian pets as of 2001, and presumably that number has only increased (Franke & Telecky, 2001). According to surveys, most reptile and amphibian owners relied on pet store personnel or books for information about their pet reptiles as opposed to relying on a veterinarian as is the case for most dog and cat owners (Franke & Telecky, 2001). As touched upon in the care of reptiles section, misleading, false, and even dangerous information is all too often provided by pet stores. Such recklessness surely contributes substantially to owners becoming emotionally, physically, or economically unable to care for their pets, leading to relinquishment, euthanasia, or abandonment. Whether federal licensing of pet stores and animal dealers could be instituted in the present political climate is up for debate. At the current time, no federal law exists to regulate the care of reptiles offered for sale. There is also no federal requirement that people pass a course on reptile husbandry before purchasing a reptile (Franke & Telecky, 2001).

Furthermore, reptiles pose a threat to human health because they carry the potentially dangerous bacteria called *Salmonella*. This bacterium is naturally occurring in many reptiles and amphibians, and those animals infected usually do not appear to be

sick in any way. *Salmonella* cause a human disease called salmonellosis. According to the Center for Disease Control, reptiles cause an estimated 74,000 cases of human salmonellosis annually (CDC, 2007). Some severe cases may result in hospitalization and even death, especially in susceptible people such as children and the elderly. Owner knowledge of this human health risk, or contraction of the disease, may lead to the relinquishment of an animal.

Many reptiles that survive into adulthood find themselves at the end of their owner's affections and finances. Some owners incorrectly assume that if they no longer want the animal that they will be able to find a home for it at the local zoo (Franke & Telecky, 2001). The reality is that zoos are overwhelmed with offers and will most likely refuse to take in exotic animals that people can no longer care for due to their own goals for the collections of species at the zoo and the unknown origin of the animal. Shelters and rescue groups are also overwhelmed with unwanted reptiles. "The problem of unwanted reptiles is greatly exacerbated by the low retail price of many commonly abandoned species," which are attractive due to their low price but whose owners soon become disinterested (Franke & Telecky, 2001). Herpetologist, Melissa Kaplan, estimates the over 10,000 iguanas are being "dumped" on rehabilitators and herpetology societies every year (Kaplan, 2007). If owners can't find someone else to take the animal or don't try, many attempt to rid themselves of their problem simply by setting the animal free, which almost certainly is a death sentence and can lead to ecological problems such as the spread of disease. The fate of unwanted reptiles is a serious concern that needs to be acted upon.

Summary

This introduction has addressed reptiles in terms of domestication, the human-animal bond, caring for reptiles, factors in the relinquishment of other companion animals, as well as the reptile trade and some evidence of where unwanted reptiles are ending up. It is apparent from the literature that although the problem of reptiles as disposable pets is gaining some attention, few actions are being taken to deal with the issue. While organizations such as the Humane Society of the United States and the American Society for the Prevention of Cruelty to Animals have taken some initial steps to address the characteristics of reptile trade and the problems arising from keeping reptiles as pets, there is so much more that needs to be examined.

Methodology

Problem Summary; Justification, and Significance of Research

As the popularity of keeping reptiles as pets grows, so too does the number of unwanted animals. Some reptile owners may tire of the creature or simply not be able to provide proper care. Some reptiles are lucky enough to end up in shelters, and others are abandoned to fend for themselves outside in unnatural and often harsh environments. The fate of unwanted reptiles has been largely unaddressed by the animal welfare and sheltering communities. However, with more and more shelters seeing reptiles enter through their doors, the demand for better information about the animals and their owners increases. While significant advances have been made to understand the reasons for relinquishment of cats and dogs, the same studies have not been conducted for reptiles and other exotic species. What kind of overlap is there between species of such different taxonomies? Do owners develop weaker human-animal bonds with reptiles? What challenges are faced by reptile owners that could contribute to relinquishment? Where and in what numbers are unwanted animals ending up?

Only through investigation of the factors that drive people to own reptiles and the factors that make people no longer want their pets, can steps be taken to help solve the problem. While some of this information already exists in record form, it has not been compiled into any organized structure. The purpose of this research is to examine and assess the dynamics of the unwanted pet reptile population in terms of owner demographics, shelter preparedness, reasons for relinquishment, and the long-term fate of unwanted animals. The study's goal is to provide shelters and advocacy organizations with better information about why owners surrender reptiles and how various

organizations are managing the problem. Hopefully, this information will assist organizations in the development of new ideas to address the issue of unwanted animals, and to expand education programs regarding exotic pet ownership.

Project Design

Due to the difficulty in gathering data from private organizations, the initial plan for this research had to be altered. Originally, the intention was to gather numerical data from shelters nationwide in an effort to uncover national trends of relinquishment of pet reptiles. To solicit this information, a letter was sent to members of the Society of Animal Welfare Administrators (SAWA), which is an organization of administrators of humane organizations, requesting cooperation with data collection for this project (See Appendix A for the letter sent to SAWA members). However, due to the low response rate from shelters, I altered the research design to represent a more mixed methods approach. I decided to conduct an exploratory case study on the organizations that responded to the letter and agreed to spend the time and effort to assist me in my research. Five organizations agreed to participate. They consist of the Humane Society at Lollypop Farm, the Colorado Reptile Humane Society, the Massachusetts Society for the Prevention of Cruelty to Animals, and the Animal Rescue League of Boston.

The case study incorporated both quantitative and qualitative research methods and took on a descriptive, exploratory form. Initial contact was made with both the Massachusetts Society for the Prevention of Cruelty to Animals and the Animal Rescue League of Boston, who agreed to participate in the study. The other organizations agreed to participate after receiving the request sent to members of SAWA. Each organization

gave me access to their database records on reptiles. Amounts of data varied depending on how long each organization had kept accurate records via electronic databases, and what data they chose to record. In addition to the record data, a member of each organization was interviewed regarding their organization's shelter management policies and procedures for reptile surrenders and adoptions, public education programs, and any other areas in which reptiles played a role.

Data Sources and Collection

Shelter records provided the primary source of data for this study. The study population consisted of relinquished, confiscated, or abandoned reptiles and amphibians. The records were obtained via electronic file transfers. The Massachusetts Society for the Prevention of Cruelty to Animals, the Animal Rescue League of Boston and the San Diego Department of Animal Services all use a database system called Chameleon. The majority of my descriptive questions were able to be answered through this program. Files were received in Microsoft Excel and reformatted into the SPSS Statistical Software Program for Windows Version 13.0 for statistical analysis. The Colorado Reptile Humane Society and the Humane Society at Lollypop Farm used other types of databases. Their data was also put into Microsoft Excel and reformatted into SPSS. Specifically in the database reports, the relevant categories of information were: the species, the reason for intake, and the outcome.

As a descriptive, exploratory study, I was interested in obtaining aggregate information from a variety of sources in order to best characterize the state of the unwanted pet reptile population. Therefore, this record based information was

supplemented through interviews which discussed the organizations policies and procedures on reptiles, as well as obtained information about how reptiles were addressed or not addressed in their shelter education programs. A list of the types of questions asked during the interviews can be found in Appendix B. Data collection began in May of 2007 and ended in July of 2007.

Data Analysis

The data were analyzed using SPSS Statistical Software Program for Windows Version 13.0. All data was subject to descriptive statistics. Due to the wide range of species as well as numerous reasons for intake and various outcome categories at the five organizations, the data was recoded into simple, unified categories for all organizations. The reptile species were recoded into five categories. The snake category included all species of snakes, the turtle/tortoise category included all species of turtles/tortoises, the iguana/lizard category included all species of iguanas/lizards, the alligator/caiman category consisted of alligators, crocodiles, and caiman, and lastly the amphibian category represented all amphibian species. The reasons for intake included a wide array of answers, which were grouped into categories for simplification. The first category was deemed Personal Reasons. This included answers such as owner problems, child problems, divorce, a new baby or pregnant owner, and health reasons. The next category was called Temperament Issues. This represented the owners concerns about the reptile's temperament such as unfriendly, bites, too active, escapes, aggressive towards people, or aggressive towards other animals. The third category was called No Longer Want. This included the answers that the reptile was too time consuming, too much responsibility,

the owner no longer wanted it, were no longer interested, were afraid, or they didn't want the animal because it was a gift. The fourth category was called Expense/Space, which included the answers that the reptile was too costly, they had no room, it was too big, or they had too many. The fifth category was called Moving/Landlord and included answers that said that the owner was moving or wasn't allowed to have the animal due to the landlord. The sixth category was called Police Confiscation, and included animals that had been confiscated from their owners for unknown reasons. The seventh category was called Sick/Injured/Dead, and included reptiles that were brought in due to illness, injury, or were already dead. The last category, Wildlife/Stray, included all reptiles that were brought in and were not owned, such as wildlife, stray, or abandoned animals.

The outcomes of reptiles taken in by the shelters were divided into four self-explanatory categories. The first was Transfer, which says that the reptiles were transferred to another facility such as a rescue group or rehabilitator, in order to get the best care. The second category, Euthanized/Died, means that the reptiles were either euthanized or died due to health reasons or were unable to be adopted and were euthanized. The third category, Adopted/Reclaimed, means that the reptile was adopted or was returned to the rightful owner. The final category, Released, means that the reptile was a native, non-exotic species and could be returned to the wild.

The case study consists of the background information on the organizations, the analyzed statistical data, and the information gathered during the interviews with staff members of the organizations. The interviews were subject to content analysis and the answers were used in both the discussion and policy implications sections of the paper to explain the positions of the organizations on a wide range of issues concerning reptiles.

Case Study: Exploration into the Relinquishment of Unwanted Pet Reptiles to Five Organizations

Background Information and Goals of the Organizations (as posted on their personal websites)

The Animal Rescue League of Boston

The Animal Rescue League of Boston (ARL) is a non-profit organization dedicated to rescuing domesticated animals and wildlife from cruelty, suffering, abandonment, and neglect. Founded in 1899, the ARL strives to be a leader in animal welfare, providing rescue and law enforcement services, and promoting a compassionate and responsible attitude towards all living beings. The ARL has branches in Boston, Brewster, and Dedham, Massachusetts. They also run the Animal Friends Summer Camp located in Cataumet, MA. In addition to rescue and adoption, the ARL provides low-cost spay and neuter services, law enforcement for abused and neglected animals, public veterinary services, as well as behavior assessments and training courses (ARL, 2007).

Massachusetts Society for the Prevention of Cruelty to Animals

The Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA) is a national and international leader in animal protection. Founded in 1868, it is the second oldest humane society in the United States. Services include animal adoption and protection, advocacy, humane education, law enforcement, and state of the art veterinary care. The MSPCA has seven animal care and adoption centers in MA. They are located in the cities of Boston, Methuen, Centerville, Nantucket, Edgartown, Brockton, and

Springfield. These facilities take in and adopt out thousands of homeless and unwanted animals every year. Besides dogs and cats, the MSPCA has centers equipped to take in a variety of small animals, such as rabbits and guinea pigs, as well as centers to house farm animals, from goats to horses and cows. In addition to sheltering activities, the MSPCA strives to be a resource for the community in terms of providing animal related information and assistance. They offer advice on animal behavior, training, wildlife conflict, and educate the public on proper pet ownership, pet-population control, and rescue injured pets and wildlife. Their medical facilities are staffed by over 90 full-time veterinarians, and are open 24 hours a day. “In addition to investigating cruelty complaints, MSPCA law enforcement officers inspect facilities and events involving animals; testify in court; work with police and social-service agencies in animal-related cases; and speak to school and community groups about animal care and protection”. Advocacy staff lobby for better animal protection laws nationally and statewide, and help individuals and communities live with animals (MSPCA, 2007).

San Diego Department of Animal Services

The San Diego Department of Animal Services (DAS) is a government funded program that provides dog licensing and animal control services to the unincorporated areas of San Diego County and the cities of Carlsbad, Del Mar, Encinitas, San Diego, Santee, and Solana Beach. The DAS operates three shelters, located in San Diego, Carlsbad, and Bonita, California. Their mission is to “protect the health, safety, and welfare of people and animals”. In addition to sheltering unwanted or homeless animals,

the DAS provides a number of other services to the public. Their “Animal Control Officers are authorized to investigate possible animal related law violations and take appropriate enforcement action. Each year Department officers conduct thousands of investigations, ranging from relatively minor code violations to felony animal cruelty cases. In some cases, officers may promote voluntary compliance by educating owners about their animal care responsibilities; other situations may warrant administrative action and/or an arrest and criminal prosecution. Additionally, officers rescue animals that are stray, sick or injured, or endangered by floods, wildland fires, or other situations”. Furthermore, the DAS offers licensing, rabies vaccinations, and microchipping of pets (San Diego DAS, 2007).

The Colorado Reptile Humane Society

The Colorado Reptile Humane Society (CoRHS) is non-profit shelter located in Longmont, CO, serving Boulder Colorado and the surrounding counties. Unlike the other organizations profiled in this research, the CoRHS is specifically dedicated to helping only reptiles and amphibians. Founded in 1998, their mission is to bring humane care to unwanted reptiles and amphibians from the pet trade and also aid native Colorado wildlife species (reptiles and amphibians only). They work with individuals, humane societies, municipal animal shelters, and animal control departments all over Colorado to provide shelter for homeless and unwanted reptiles and amphibians. In addition, they receive referrals from pet stores and other animal control officers across the country for people who no longer want or are not able to care for their pets. Their programs include

“sheltering, fostering, and adoption of pet trade animals; rehabilitation and release of reptile and amphibian wildlife; training of animal welfare and medical professionals; and humane education” (CoRHS, 2007).

The Humane Society at Lollypop Farm

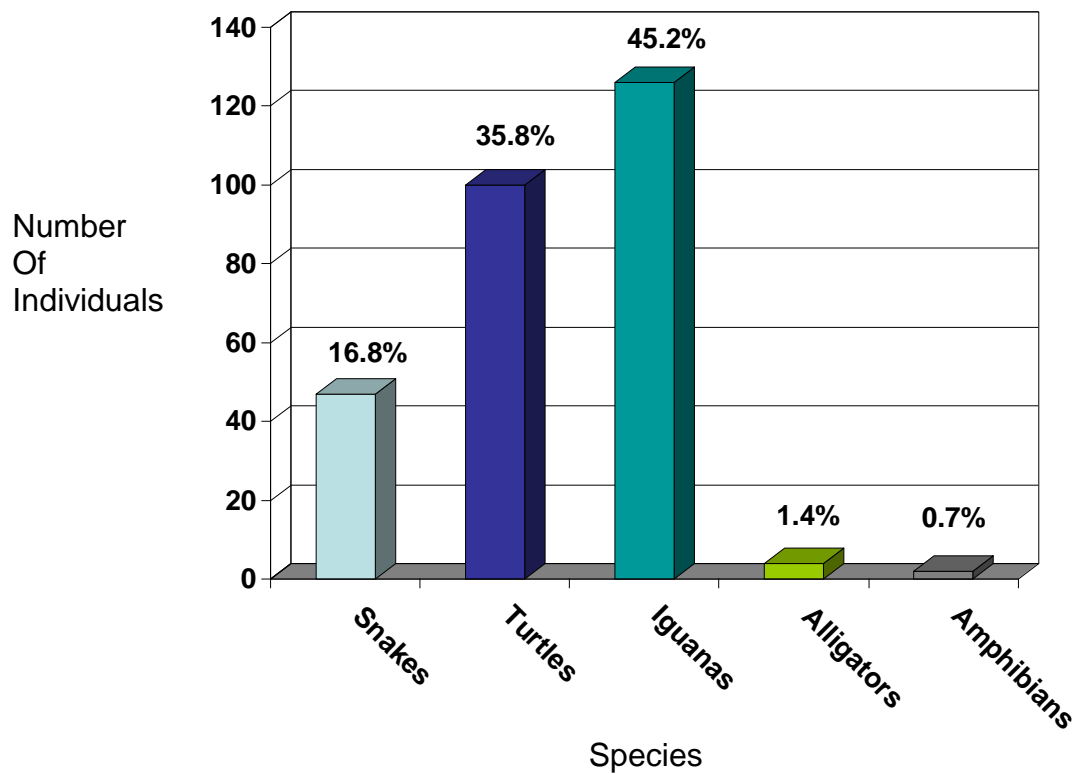
The Humane Society at Lollypop Farm (HSLF) is another organization whose history, like the MSPCA, began in 1873 when groups of vocal individuals decided to take action against cruelty of work animals. Today, the organization is committed to building lifelong bonds between people and animals through education, community outreach programs and the prevention of cruelty. Located in Fairport, New York, the shelter serves Rochester and Monroe counties. In addition to sheltering and adoption of unwanted or homeless animals, the HSLF provides a number of other services to the public including pet assisted therapy, senior citizen pet assistance, spay/neuter incentive programs, obedience training, cemetery/cremation for pets, pet loss support, summer camps for children and other educational programs about responsible animal care (HSLF, 2007).

Results

Species Taken In by the Shelters

Through the Chameleon database, I was able to gain access to the ARL's records on reptiles from the time period of 1/1/2000-12/31/2006. As shown in Figure 1, the most commonly admitted species of reptiles during this period were in the Iguana/Lizard category (45.2%), and were comprised mostly of green iguanas.

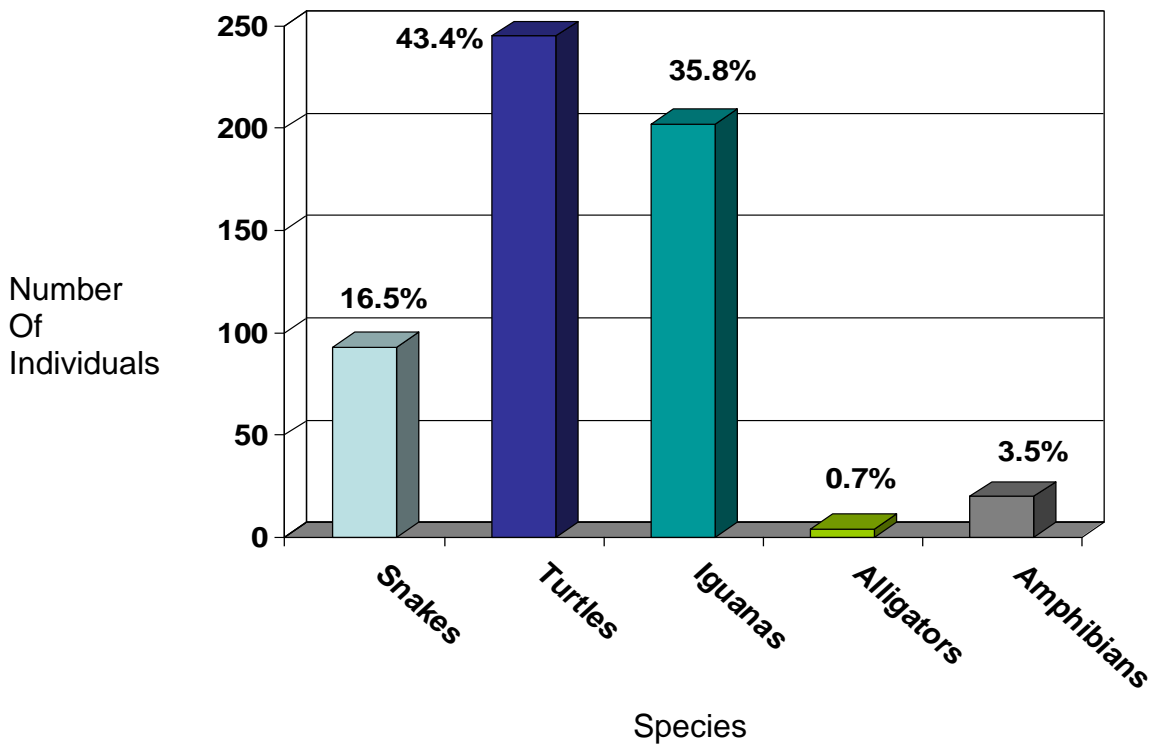
Figure 1: Species Taken In by the ARL



The data provided by the MSPCA was for the time period of 3/8/2001- 6/15/2007.

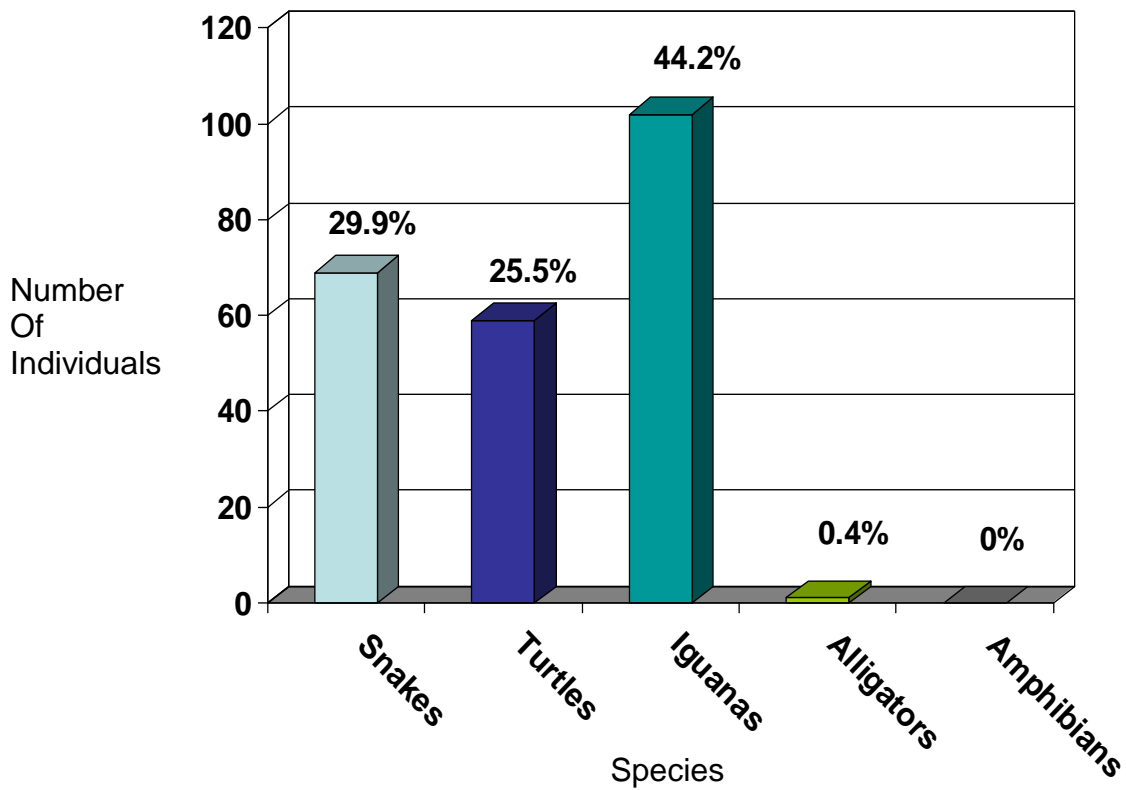
As shown in Figure 2, the most commonly admitted species of reptiles were in the turtles/tortoises category (43.4%), but the main species of turtle was unknown.

Figure 2: Species Taken In by the MSPCA



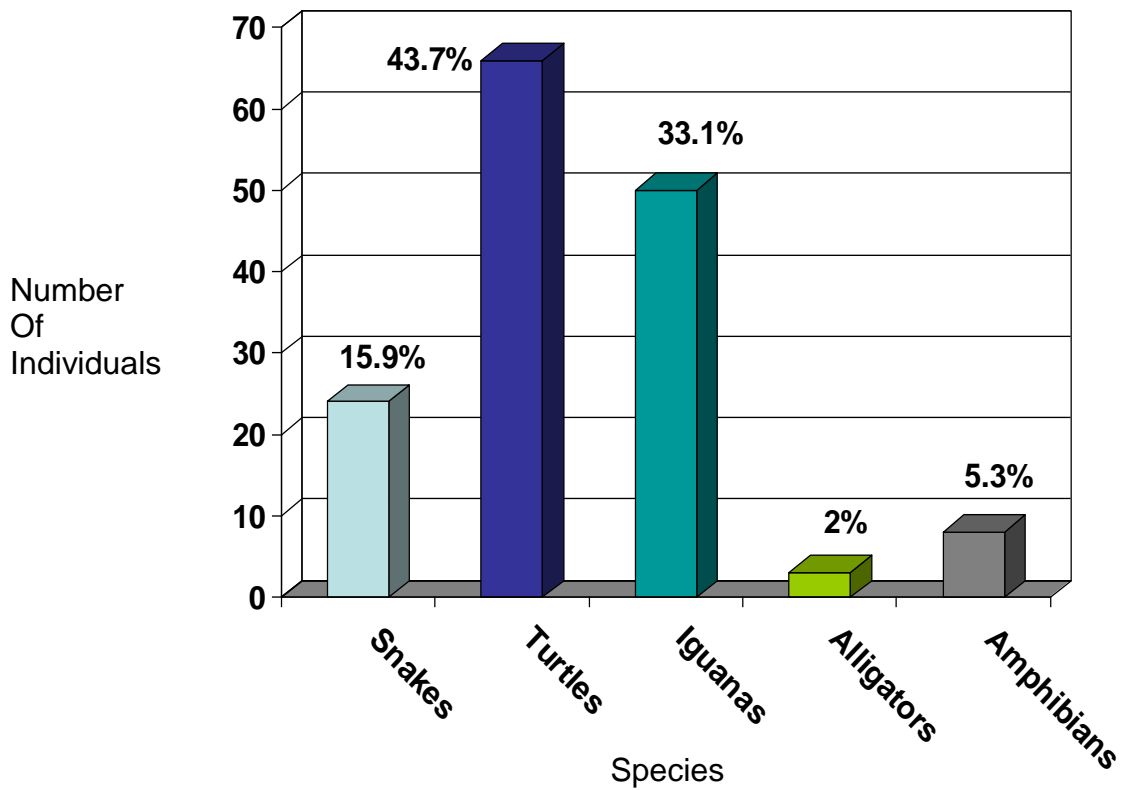
The database records provided by the San Diego DAS were for the time period of 10/21/1995 – 3/10/2007. As shown in Figure 3, the most commonly admitted species of reptiles were in the iguana/lizard category (44.2%), and like the ARL, were mostly green iguanas.

Figure 3: Species Taken In by the San Diego DAS



The database records for the Colorado Reptile Humane Society were for the time period of 1/07/2006– 7/08/2006. As shown in Figure 4, the most commonly admitted species of reptiles during this time period were in the turtles/tortoises category (43.7%), and were mainly comprised of box turtles and red eared sliders.

Figure 4: Species Taken In by the CoRHS



The database records for the Humane Society at Lollypop Farm were for the time period of 10/1/1999-5/26/2007. As shown in Figure 5, during this period the most commonly admitted species of reptiles were in the iguana/lizard category (49.3%), and were again mostly green iguanas.

Figure 5: Species Taken In by the HSLF

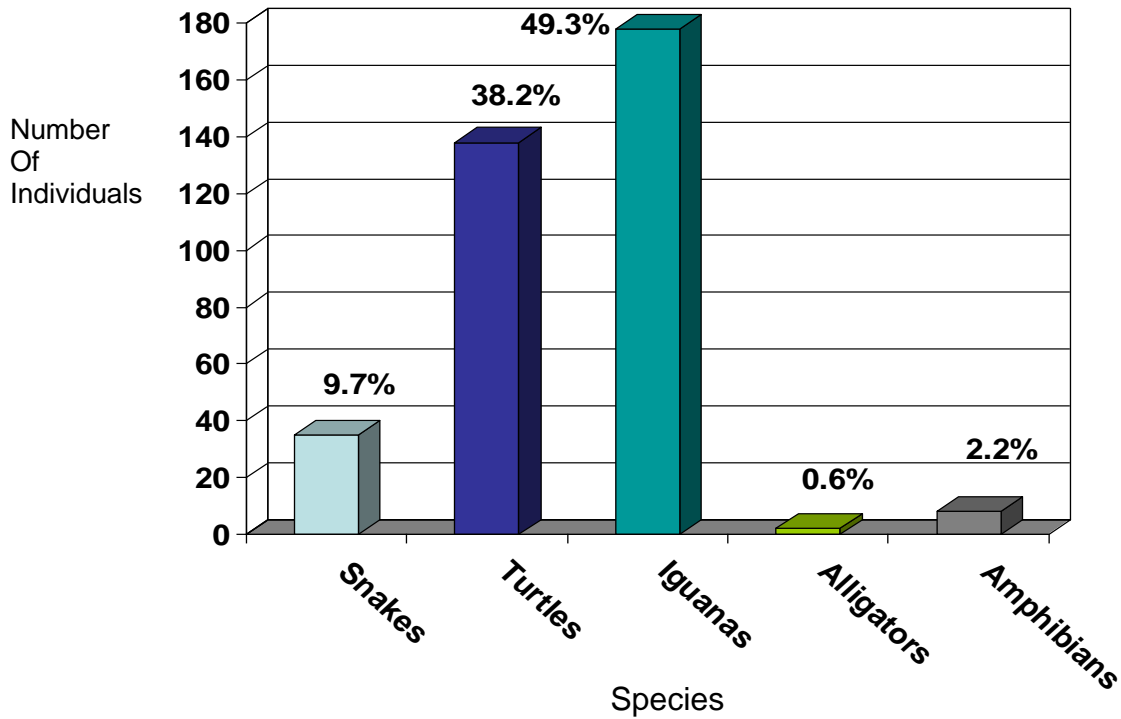


Table 1 provides a summary of all the species and numbers of reptiles admitted by the ARL, MSPCA, DAS, CoRHS, and the HSLF for the various time periods stated in the above sections.

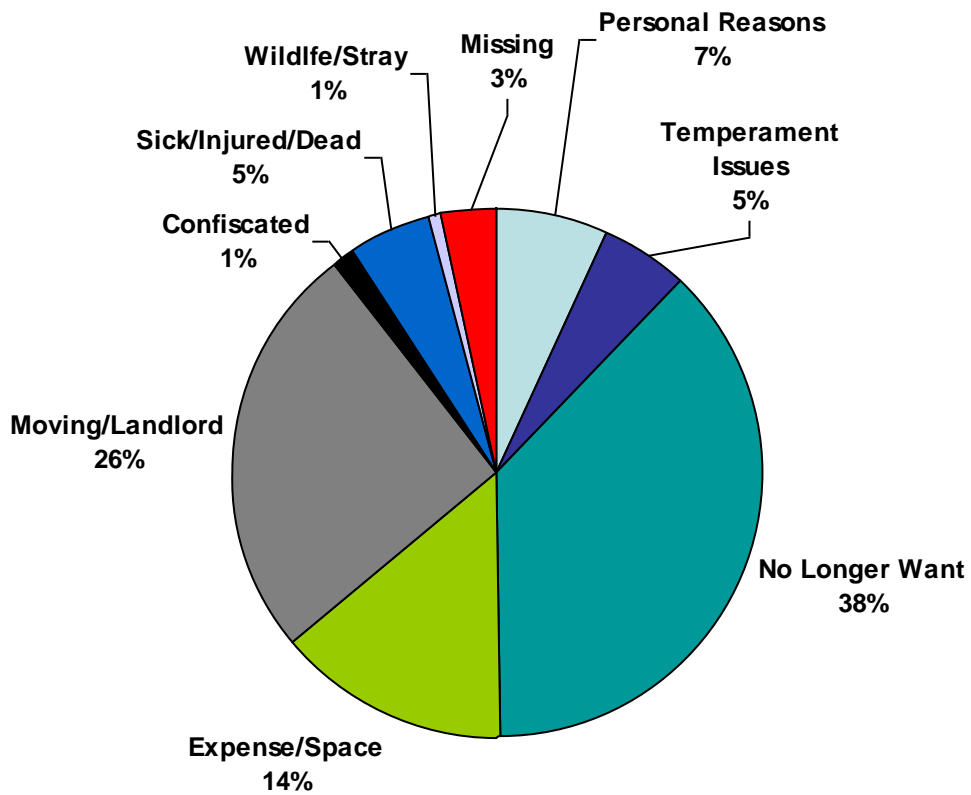
Table 1: Species Taken In by the Five Organizations

	ARL		MSPCA		DAS		CoRHS		HSLF	
	N	%	N	%	N	%	N	%	N	%
Snakes	47	16.8	93	16.5	69	29.9	24	15.9	35	9.7
Turtles/Tortoises	100	35.8	245	43.4	59	25.5	66	43.7	138	38.2
Iguanas/Lizards	126	45.2	202	35.8	102	44.2	50	33.1	178	49.3
Alligators/Caiman	4	1.4	4	0.7	1	0.4	3	2	2	0.6
Amphibians	2	0.7	20	3.5	0	0	8	5.3	8	2.2
TOTAL	279		564		231		151		361	

Reasons for Intake

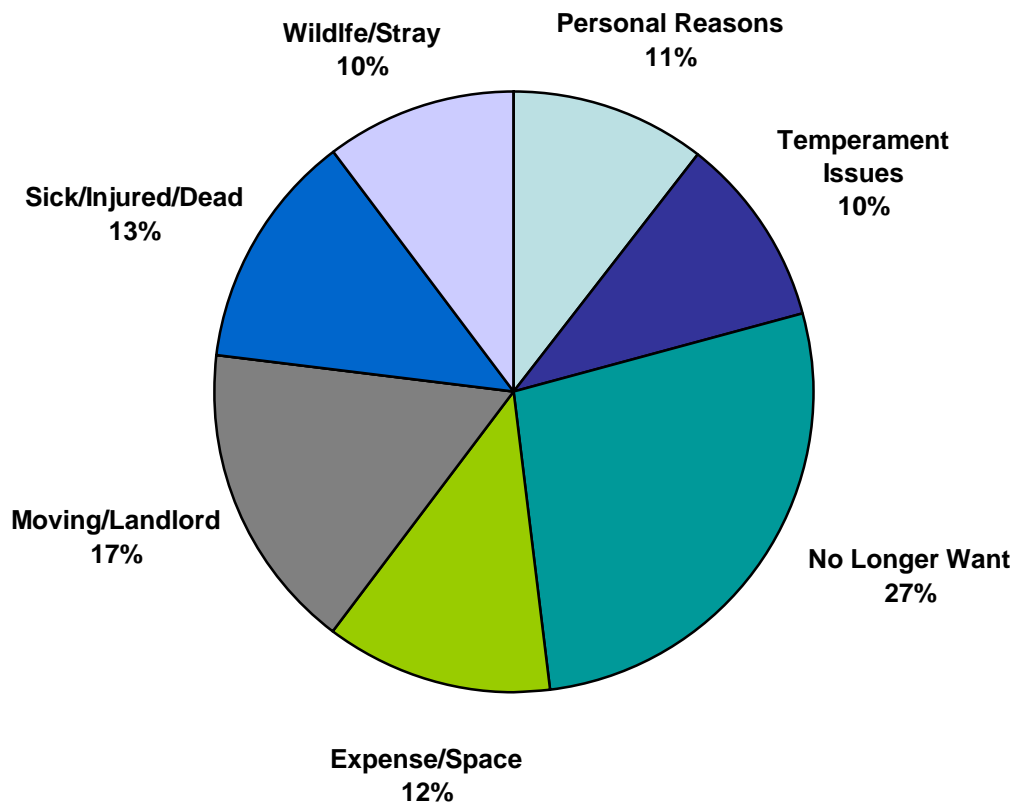
As shown in Figure 6, the most commonly cited reasons for intake of pet reptiles to the ARL fall under the No Longer Want category (38%).

Figure 6: Reasons for Intake of 279 Reptiles to the ARL from 1/1/2000-12/31/2006.



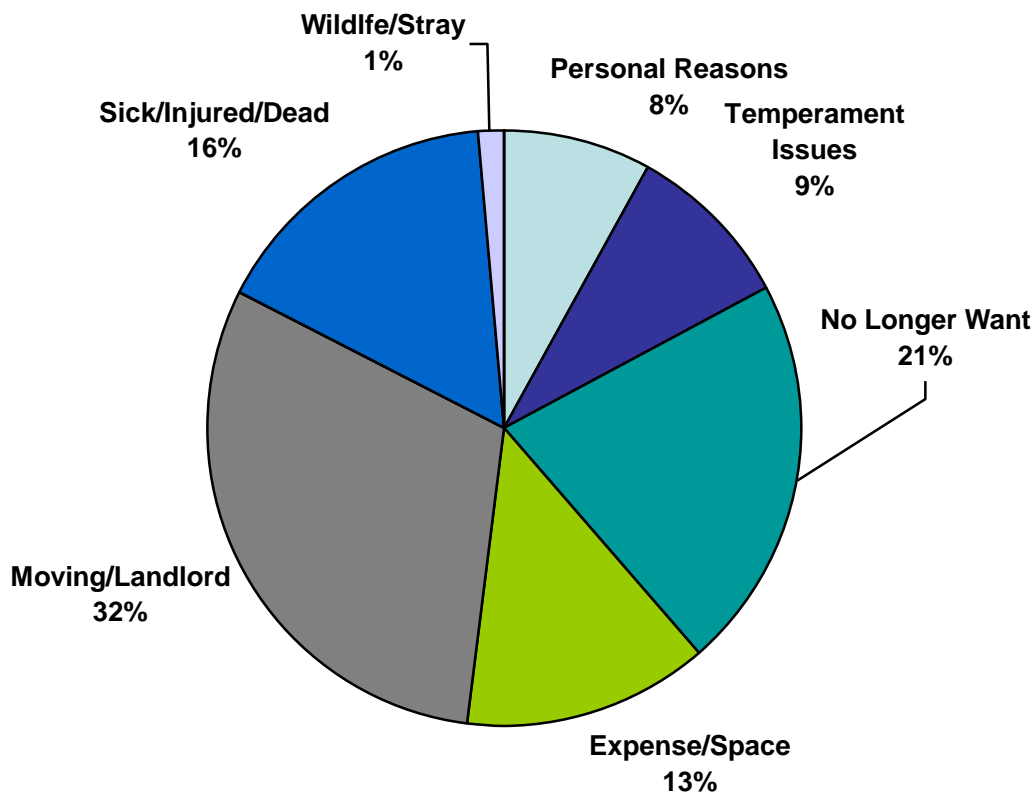
As shown in Figure 7, the most commonly cited reasons for intake of pet reptiles to the MSPCA also fall under the No Longer Want category (27%). However, it should be noted that due to the high volume of missing data on reasons for intake, these percentages exclude the 362 missing cases.

Figure 7: Reasons for Intake of 226 Reptiles to the MSPCA from 3/8/2001- 6/15/2007



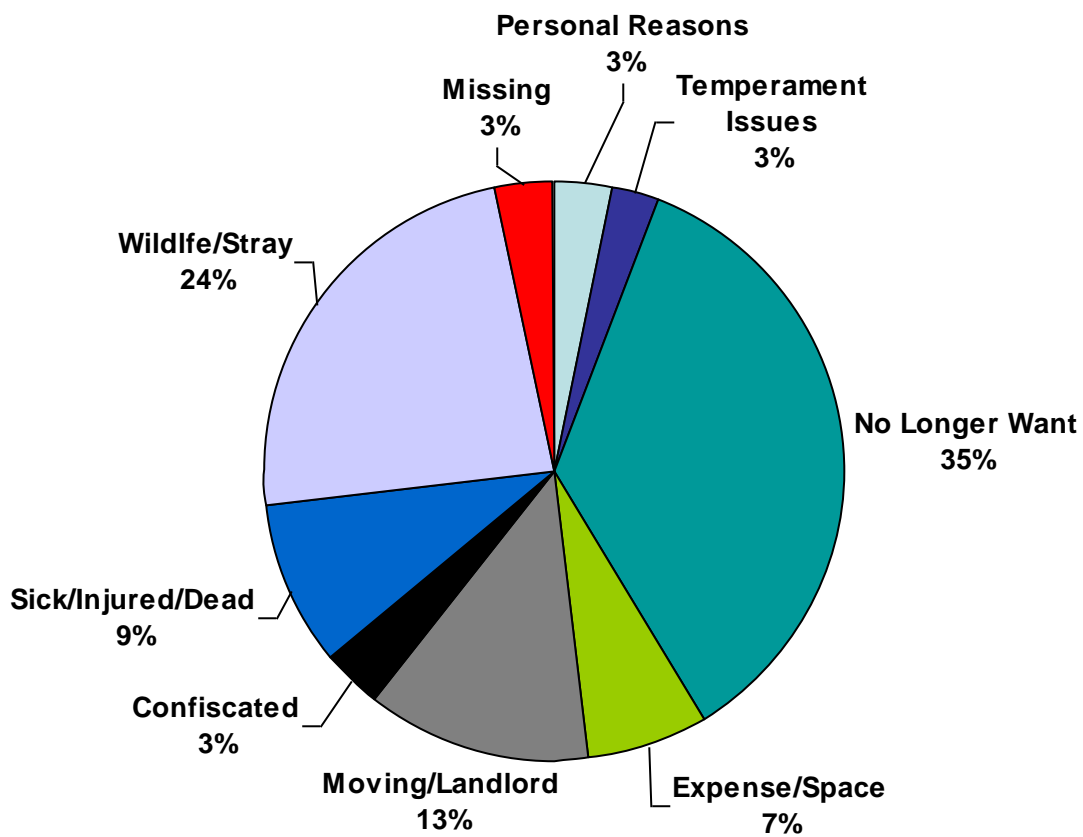
As shown in Figure 8, the most commonly cited reasons for intake of pet reptiles to the San Diego DAS fall under the Moving/Landlord category (32%). Again, it should be noted that due to the large volume, these percentages exclude the 84 cases of missing data on reasons for intake.

Figure 8: Reasons for Intake of 150 Reptiles to the San Diego DAS from 10/21/1995 – 3/10/2007



As shown in Figure 9, the most commonly cited reasons for intake of pet reptiles to the Colorado Reptile Humane Society fall under the No Longer Want category (35%).

Figure 9: Reasons for Intake of 147 Reptiles to the CoRHS from 1/07/2006– 7/08/2006



Due to the format of the database used by the Humane Society at Lollypop Farm, I was not able to obtain the data on the reasons for intake of reptiles to the HSLF. Table 2 summarizes data on reasons for intake to the remaining four organizations.

Table 2: Summary of Reasons for Intake of Reptiles to Four Animal Sheltering Organizations (excluding the HSLF)

	ARL		MSPCA		DAS		CoRHS	
	N	%	N	%	N	%	N	%
Personal Reasons	19	7.0	24	10.6	12	8.0	5	3.4
Temperament Issues								
No Longer Want	15	5.6	23	10.2	14	9.3	4	2.7
Expense/Space	104	38.5	61	27.0	32	21.3	54	36.7
Moving/Landlord	40	14.8	27	11.9	20	13.3	10	6.8
Confiscated	71	26.3	39	17.3	46	30.7	19	12.9
Sick/Injured/Dead	4	1.5	0	0	0	0	5	3.4
Wildlife/Stray	14	5.2	29	12.8	24	16.0	14	9.5
TOTAL	3	1.1	23	10.2	2	1.3	36	24.5
	270		226		150		147	

Reasons for Intake of Dogs and Cats Compared to Reptiles

In order to see if there are differences in reasons for intake between species of different taxonomies, I also gathered data on the reasons cats and dogs were brought to the shelters. Table 3 shows the frequencies and percents of the various reasons for intake of dogs and cats to the ARL during the time period of 1/1/2000- 12/31/2006, which was the same time period as the data on reptiles.

Table 3: Summary of Reasons for Intake of Dogs and Cats to the ARL from 1/1/2000-12/31/2006

	DOGS		CATS	
	N	%	N	%
Personal Reasons	1474	18.2	4651	21.0
Temperament				
Issues	1273	15.7	1357	6.1
No Longer Want	2023	25.0	2220	10.0
Expense/Space	978	12.1	7797	35.3
Moving/Landlord	1889	23.3	4996	22.6
Confiscated	27	0.3	9	0.00004
Sick/Injured/Dead	403	5.0	646	3.0
Wildlife/Stray	42	0.5	432	2.0
TOTAL	8109	100	22108	100

Very few animals that came into the shelter were strays or had been confiscated by the police. Therefore, the main reasons for intake were due to owner surrender. As shown in Figure 10, reptiles and dogs shared the No Longer Want category as the main reason for relinquishment (38.5% and 25% respectively), while the main reason for cats was the Expense/Space category (35.3%). All three groups shared Moving/Landlord as the second most frequent reason for relinquishment. The third most common reason for relinquishment was Expense/Space for reptiles and Personal Reasons for dogs and cats.

Figure 10: Top Three Reasons for Relinquishment of Reptiles, Dogs, and Cats to the ARL

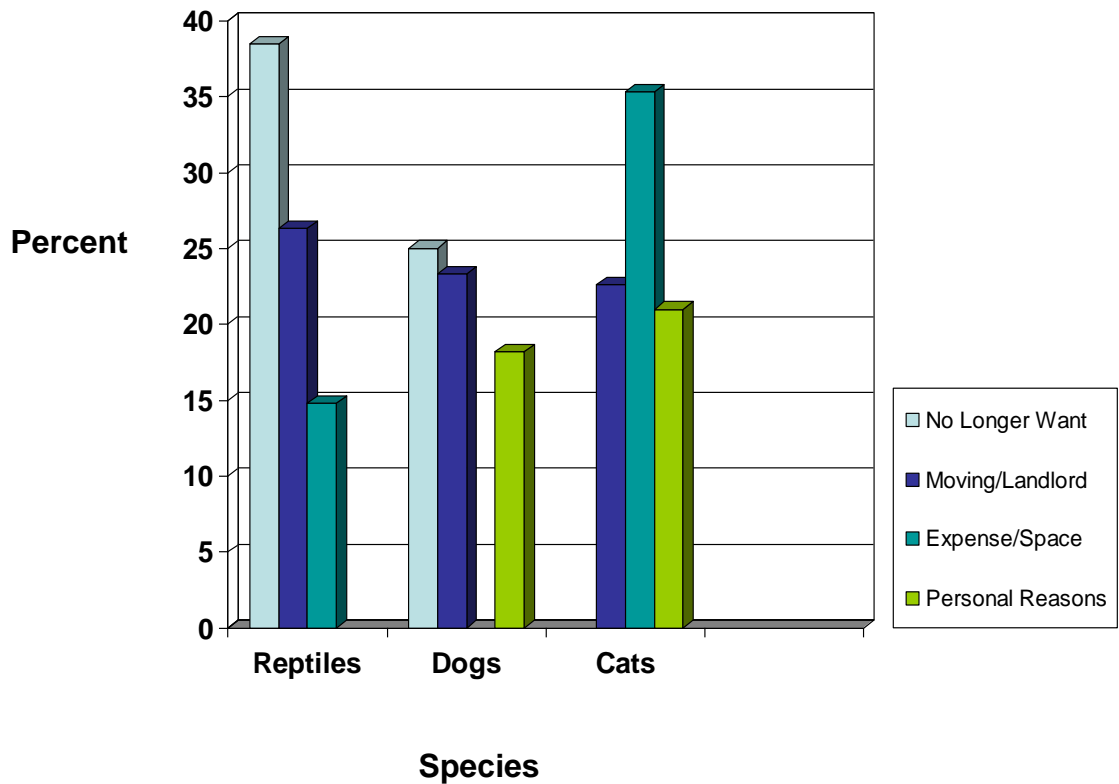


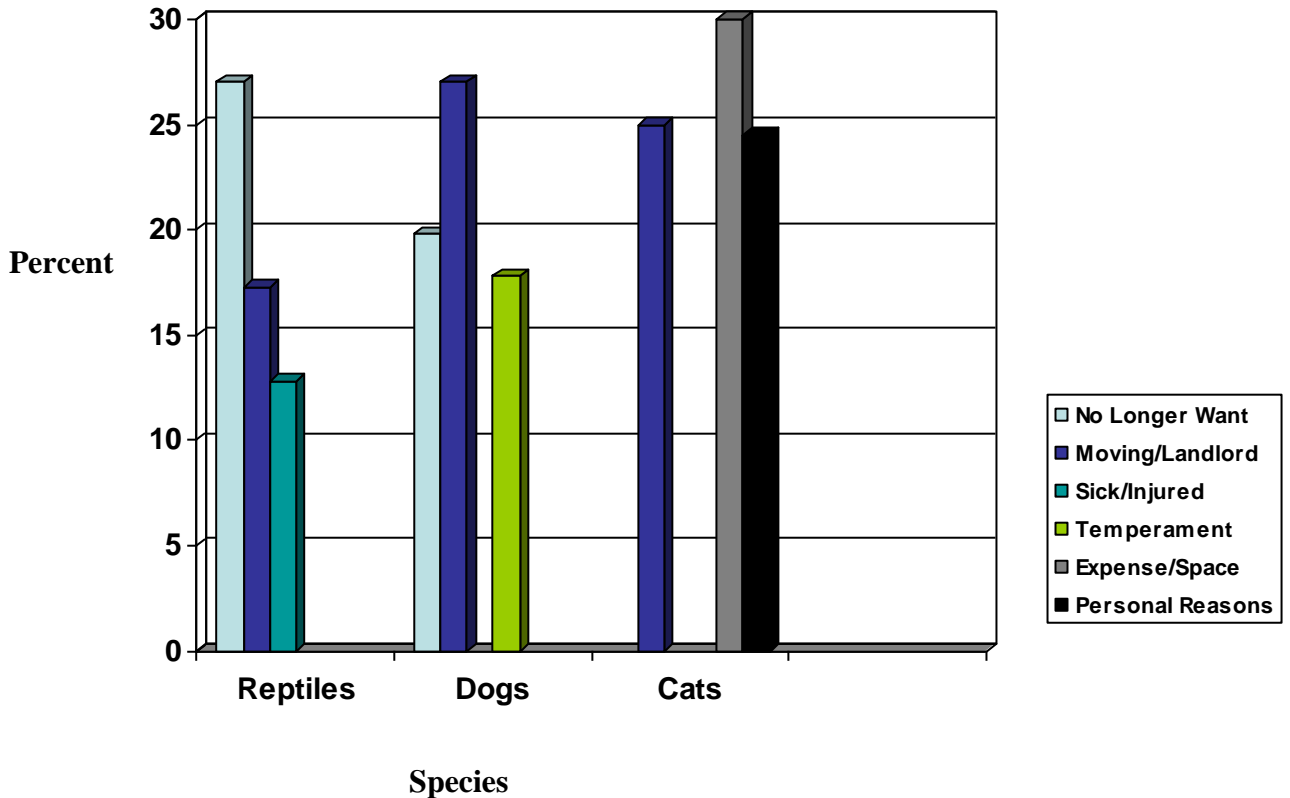
Table 4 represents the frequencies and percents of reasons for intake of dogs and cats to the MSPCA. However, due to the large volume of cats and dogs admitted to the shelter, the time period is only for the year of 1/1/2006- 12/31/2006, which is a much shorter span than the data gathered on reptiles (8/2001- 6/15/2007).

Table 4: Summary of Reasons for Intake of Dog and Cats to the MSPCA from 1/1/2006-12/31/2006

	DOGS		CATS	
	N	%	N	%
Personal Reasons	466	17.4	1846	24.5
Temperament				
Issues	477	17.8	638	8.4
No Longer Want	530	19.8	645	8.5
Expense/Space	299	11.1	2270	30.0
Moving/Landlord	724	27.0	1887	25.0
Confiscated	0	0	0	0
Sick/Injured/Dead	186	7.0	261	3.5
Wildlife/Stray	0	0	0	0
TOTAL	2682		7547	

Like the ARL, very few animals that came into the shelter were strays or had been confiscated by the police. Therefore, the main reasons for intake were due to owner surrender. As shown in Figure 11, the main reason for relinquishment was the No Longer Want category (27%) for reptiles, the Moving/Landlord category for dogs (27%), and the Expense/Space category for cats (30%). This was followed by the Moving/Landlord category for reptiles and cats (17.3% and 25% respectively), and the No Longer Want category for dogs (19.8%). The third most common reasons were the Sick/Injured category for reptiles, Temperament Issues for dogs, and Personal Reasons for cats.

Figure 11: Top 3 Reasons for Relinquishment of Reptiles, Dogs, and Cats to the MSPCA



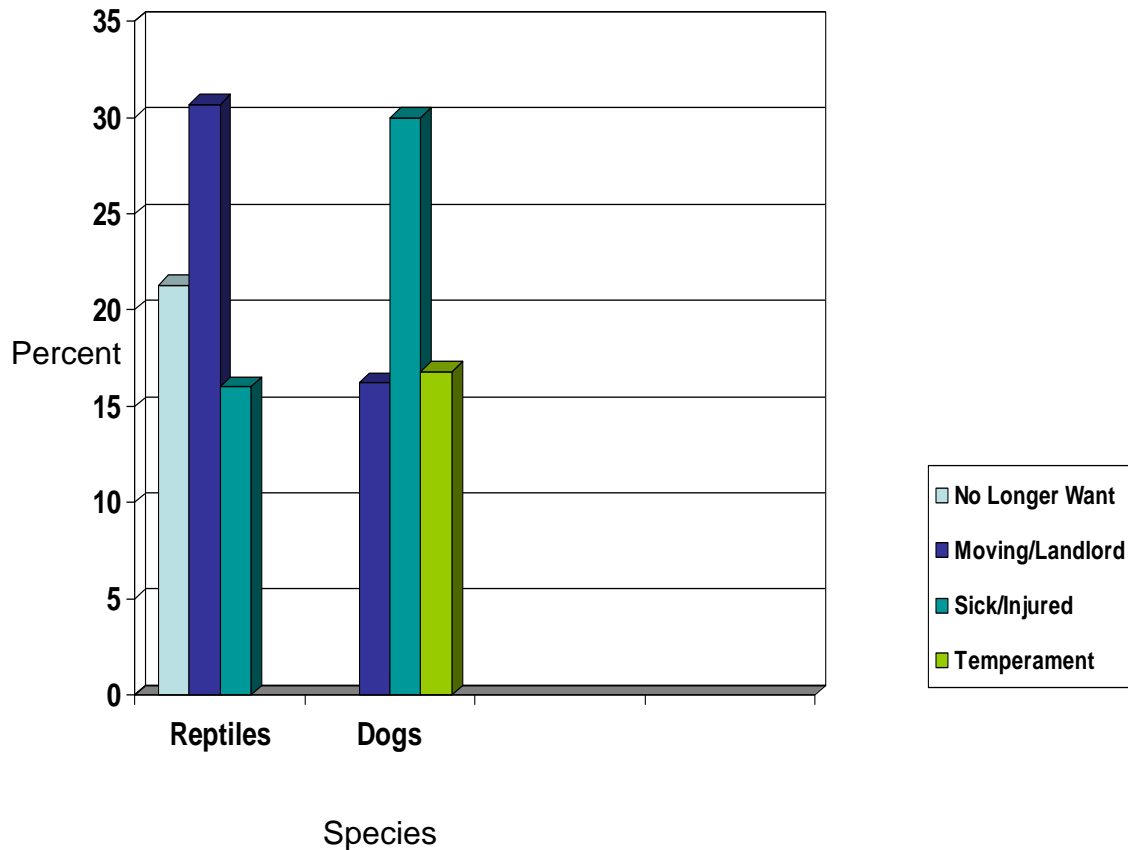
As shown in Table 5, the last organization I was able to gather data on reasons for intake of other taxonomies was for the San Diego DAS. However, the data is only for dogs during the period of 9/8/2005- 7/19/2007.

Table 5: Summary of Reasons for Intake of Dogs to the San Diego DAS from 9/8/2005-7/19/2007

	DOGS	
	N	%
Personal Reasons	1047	10.6
Temperament		
Issues	1656	16.8
No Longer Want	985	10.0
Expense/Space	1510	15.3
Moving/Landlord	1594	16.2
Confiscated	0	0
Sick/Injured/Dead	2967	30.1
Wildlife/Stray	100	1.0
TOTAL	9859	

Again, very few animals that came into the shelter were strays or had been confiscated by the police. Therefore, the main reasons for intake were due to owner surrender. As shown in Figure 12, the main reason for relinquishment was the Moving/Landlord category for reptiles (30.7%), and the Sick/Injured category for dogs (30%). This was followed by the No Longer Want category for reptiles (21.3%), and the Temperament Issues category for dogs (19.8%). The third most common reasons were the Sick/Injured category for reptiles, and Moving/Landlord for dogs.

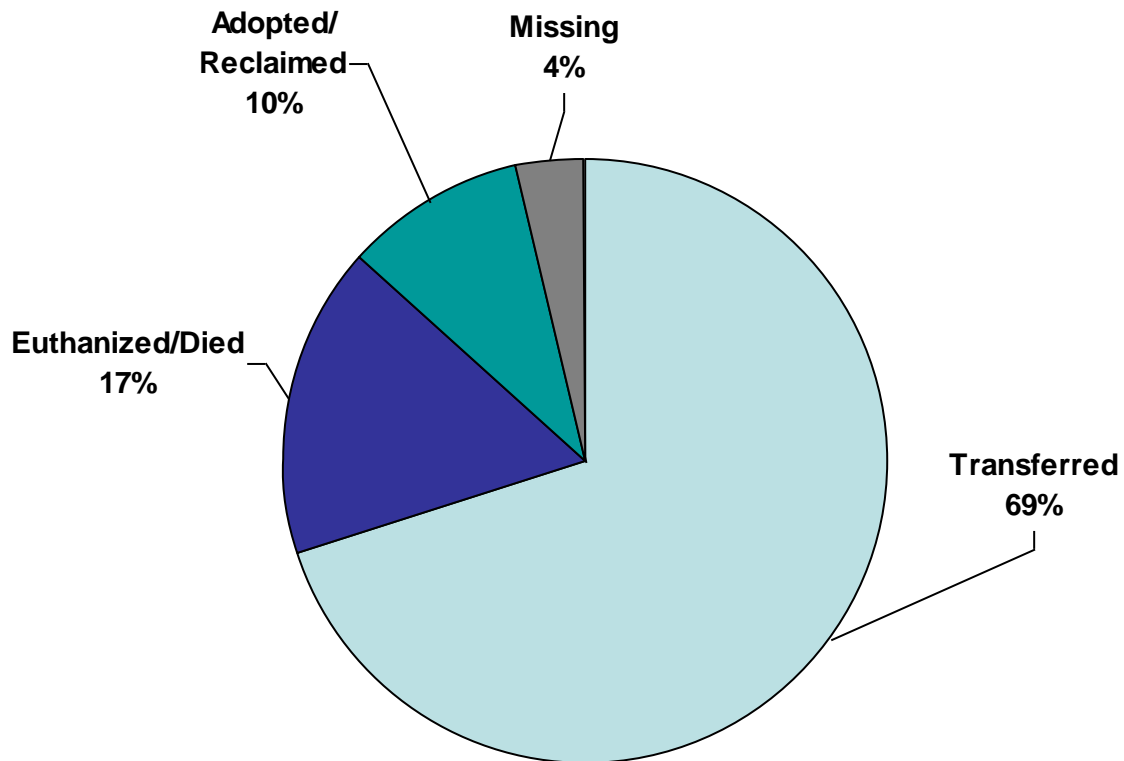
Figure 12: Top 3 Reasons for Relinquishment of Reptiles and Dogs to the San Diego DAS



Outcomes of Reptiles Admitted to the Shelters

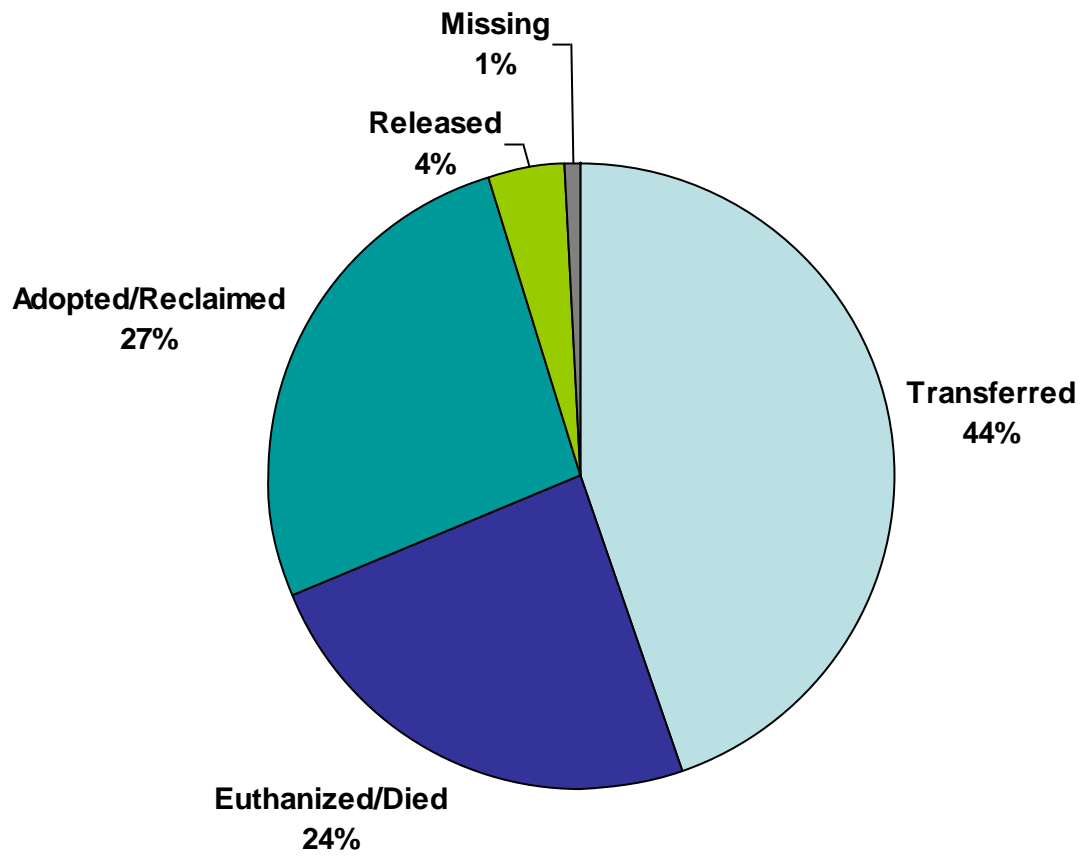
As shown in Figure 13, the most common outcome of reptiles taken in by the ARL was for them to be transferred to another facility that could better address their needs (69%).

Figure 13: Outcomes of 269 Reptiles Admitted to the ARL from 1/1/2000-12/31/2006



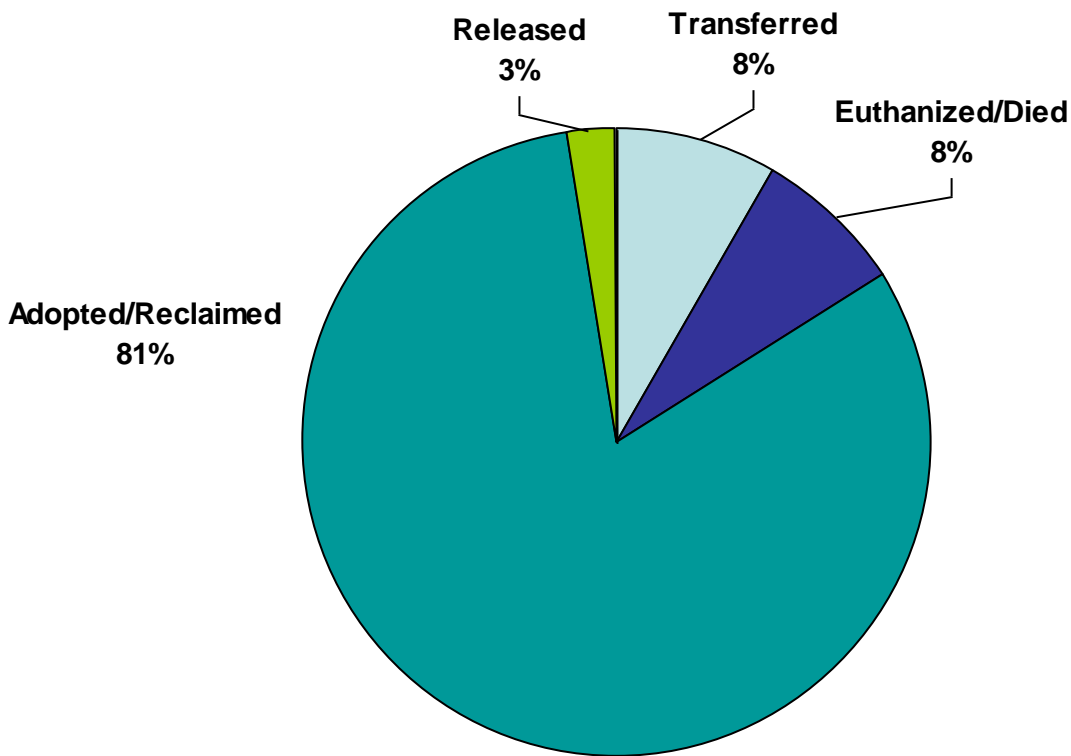
As shown in Figure 14, the most common outcome of reptiles taken in by the MSPCA was also to be transferred to another facility (44%).

Figure 14: Outcomes of 563 Reptiles Admitted by the MSPCA from 3/8/2001-6/15/2007



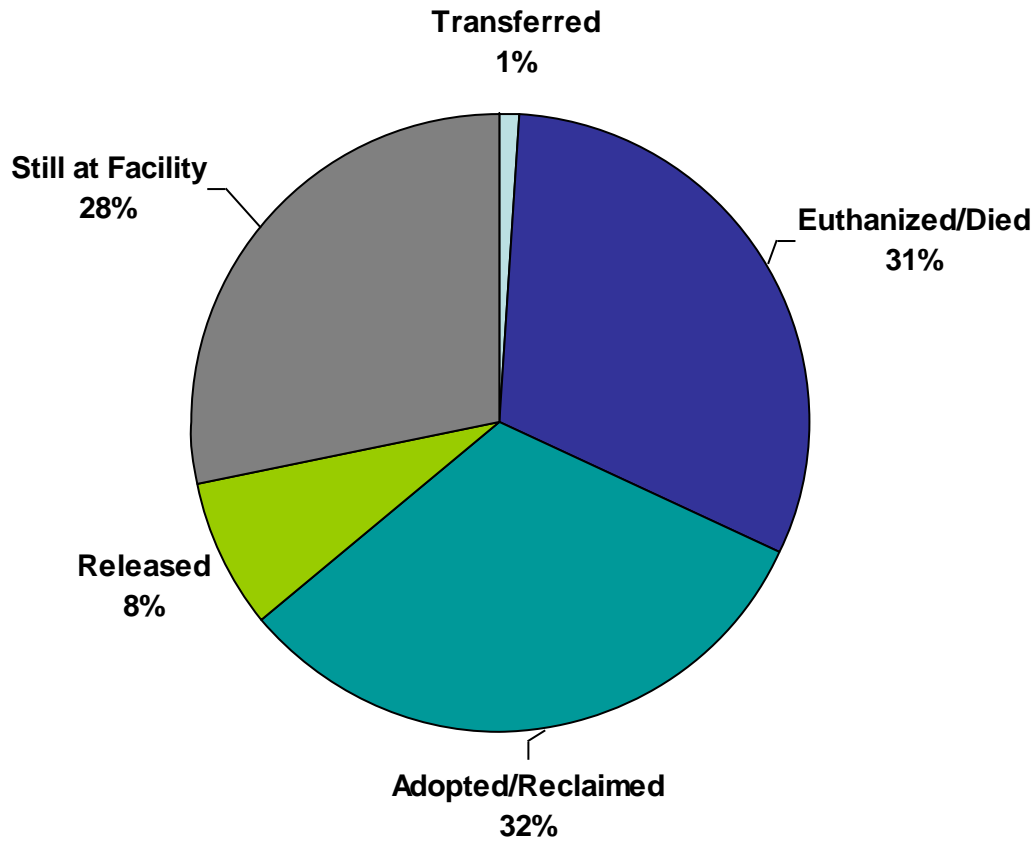
As shown in Figure 15, the most common outcome of reptiles taken in by the San Diego DAS is to be adopted or reclaimed by an owner (81%). However, it should be noted that these percentages are based on the exclusion of 78 cases of data that did not have a recorded outcome.

Figure 15: Outcomes of 156 Reptiles Admitted to the San Diego DAS from 10/21/1995 – 3/10/2007



As shown in Figure 16, the most common outcome of reptiles taken in by the Colorado Reptile Humane Society is to be adopted or reclaimed by an owner (32%).

Figure 16: Outcomes of 128 Reptiles Admitted by the CoRHS from 1/07/2006–7/08/2006



As shown in Figure 17, the most common outcome of reptiles taken in by the Humane Society at Lollypop Farm is to be adopted or reclaimed by an owner (50%).

Figure 17: Outcomes of 358 Reptiles Admitted to the HSLF from 10/1/1999-5/26/2007

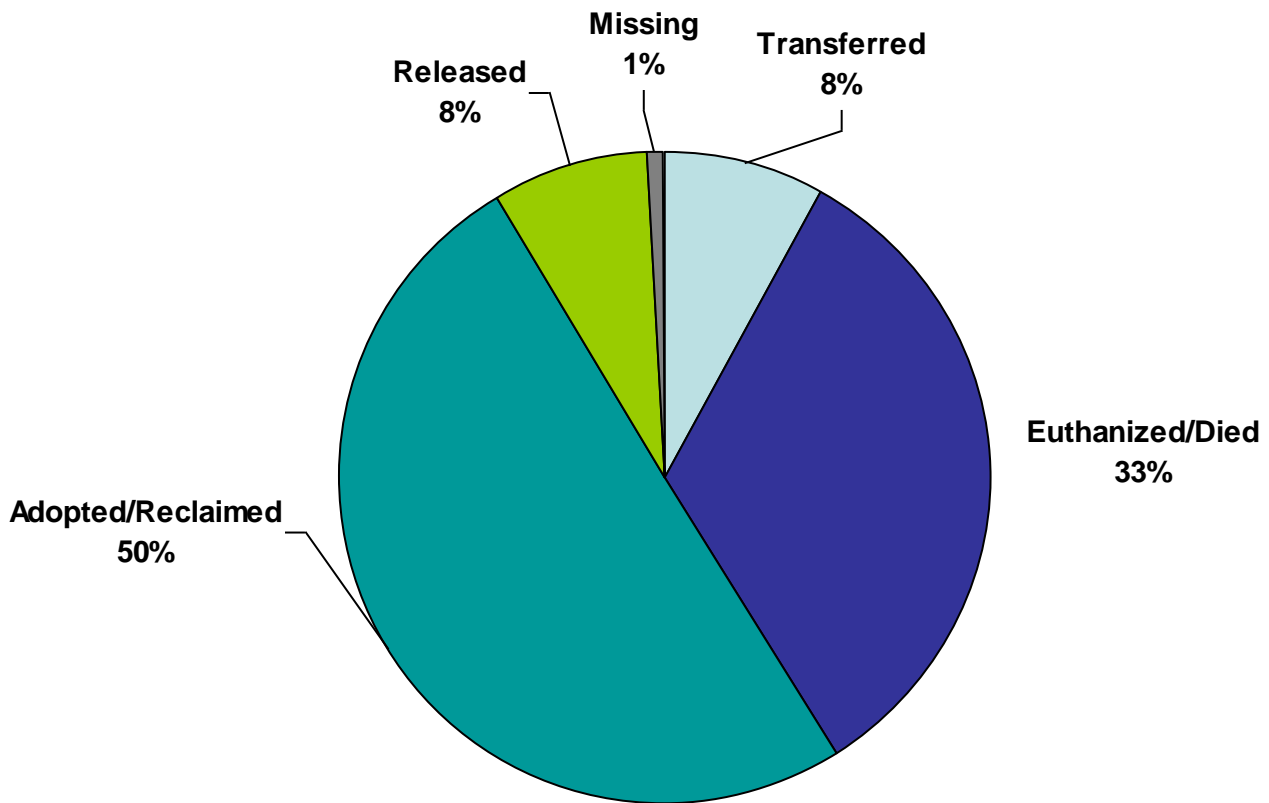


Table 6 provides a summary of the frequencies and percentages of the outcomes of reptiles taken in by the shelters.

Table 6: Outcomes of Reptiles Admitted to the Five Sheltering Organizations

	ARL		MSPCA		DAS		CoRHS		HSLF	
	N	%	N	%	N	%	N	%	N	%
Transferred	195	72.5	255	45.3	13	8.3	2	1.3	29	8.0
Euthanized/Died	47	17.5	135	24.0	12	7.7	55	36.2	119	33
Adopted/Reclaimed	27	10	151	26.8	127	81.4	57	37.5	182	50.4
Released	0	0	22	3.9	4	2.6	14	9.2	28	7.8
TOTAL	269		563		156		128		358	

Discussion (based on interviews with shelter employees)

Shelter Policies

None of the five organizations had specific written policies on dealing with relinquished reptiles, yet all of them appeared to operate in the same manner. No matter if the reptile was an exotic or native species, each organization had an open-door admission policy on accepting the animal. If the shelter is not equipped to treat or house the reptile, the animal is either transferred to another facility that is better equipped to care for the specific needs of reptiles long-term, or to a licensed reptile rehabilitator for further medical care and potential release if it is a native wildlife species. According to Lisa Lagos, the Shelter Manager for the Dedham branch of the ARL, most of the aid given to reptiles is in the form of transport and triage. This is exemplified in Figure 13, which shows that 69% of reptiles that come into the ARL are transferred. Due to the sometimes demanding physical and nutritional needs of reptiles in captivity, many shelters are not equipped to care for reptiles long-term until adoption. However, shelters are noticing that the number of reptilian admissions is consistent, or even increasing in some areas. The MSPCA for one has noticed this trend and during facility renovations in their Boston and Methuen shelters, took the opportunity to build temperature controlled rooms specifically for reptiles. The CoRHS, which handles only reptiles and amphibians, has a wide array of aquariums and indoor and outdoor habitats designed specifically for various species of reptiles, and they can in fact house 100-150 animals at one time. As long as the animal's environmental and nutritional needs can be met and it is not outwardly aggressive, each organization maintained that it will keep the animal until it is adopted out or brought to a

sanctuary. Only on vary rare occasions will a reptile have to be euthanized due to time or space constraints, which is different than what may occur with dogs and cats due to their sheer volume.

While the organizations either employ or utilize volunteer exotic animal veterinarians at the shelters to help them take care of reptilian patients, all the organizations said that most of what the staff knows came from taking it upon themselves to learn about more about reptiles. Hardly anyone that works at the shelters is specifically trained to treat or handle reptiles, but certain employees develop an affinity for it and become the shelter specialists. In a similar fashion, none of the organizations require a specific course or training to adopt a reptile. In general, the interested party will work one on one with a staff member to go over all the unique needs of reptiles before they are allowed to complete the adoption. In addition, the adopter must also meet all the regular requirements for adopting an animal, such as being of age and having proof of a proper environment for the animal.

Education and Outreach

In addition to general sheltering services, many of the organizations are directly involved in humane education programs. The MSPCA, ARL, San Diego DAS and HSLF all offer either child or adult education programs. Where do reptiles fit into these education and public outreach programs? The San Diego DAS's programs are focused on safety issues, such as bite prevention in dogs, and therefore reptiles are not addressed in their education programs. The HSLF said that while reptiles are not specifically addressed in their summer camp, if they have a reptile at the shelter, they will try to

include it in the program. The ARL operates in a similar fashion in which they do not have specific programs on reptiles, but have decided to permanently adopt a few specimens that were at their shelters to use in their education programs to showcase reptile issues. Both of these shelters said that they do not actively discourage the keeping of exotic pets, but instead try to promote responsible care. The MSPCA however said that they do specifically address reptiles at their summer camp through discussions of the special needs of reptiles and why they don't always make good pets. Unlike the ARL and HSLF, the MSPCA does actively try to discourage the buying of exotic pets in their public education programs by shedding light on the problems with breeding animals commercially and addressing welfare concerns of animals in pet stores. The CoRHS operates in a slightly different manner in that the programs they provide are for current and prospective reptile owners. They offer courses and workshops on topics such as preparing turtles for hibernation and dealing with aggressive iguanas. In addition to these workshops, the CoRHS has launched the Colorado Box Turtle Project, which is a research project focused on the ornate box turtle. This species has been heavily harvested by the pet trade and its slow movements have made it susceptible to human impacts, leading to drastic population declines. According to the CoRHS, the goal of the project is to “study populations of *T. o. ornata* to add to our understanding of population dynamics, land use, and impacts of human activity including harvesting for the pet trade. As Colorado's Eastern plains continue to be heavily developed, this information will aid in establishing population viability and conservation needs before it becomes too late to prevent extirpation” (CoRHS, 2007).

Species Admitted

As shown in Table 1, the two main categories of reptiles taken in by the shelters are the iguanas/lizards and the turtles/tortoises. The most common species are green iguanas and box turtles. For snakes, the most common species in the shelters are ball pythons. While no specific species trends were identified by the organizations, Richard Gerbasi, Vice President of Operations and Field Services at the HSLF explained that the animals that are coming through the shelter now are the species that were popular a few years ago. Once the novelty has worn off, or the availability exceeds the demand for a specific species, it starts to make its way into shelters. Ann-Elizabeth Nash, who is the Director of the CoRHS, described the process as akin to the latest cell phone model. Once the new phone comes out (or a new species is considered the “it” collectors item), then people no longer want the old model. This is what is happening with green iguanas. Their drop in popularity compounded with low retail prices because of the flooded market has made them a staple in the shelters.

Reasons for Surrender

Between the ARL, MSPCA, San Diego DAS, CoRHS, and the HSLF, the main reason for relinquishment of reptiles was the No Longer Want category. This category included specific answers from the owner such as: having no time, loss of interest, don't want anymore, or that the pet was too much responsibility. Jean Weber, Director of Shelters for the MSPCA described reptiles as “impulse buys.” People see a cool creature at the pet store and decide to buy it without giving full consideration to the demanding needs of the animal. Basically, “the novelty of the reptile wears off, and the owner no

longer wants to take care of the pet” (Weber, 2007). Unlike dogs and cats that won’t live past their twenties, reptiles can live a very long time if given the proper care. Some large lizards can live for decades and some species of turtles can live into the hundreds (Kaplan, 1994). This makes owning a reptile a very long-term commitment, and many people are just not up for the task.

Marla Isaac, a Massachusetts state licensed wildlife rehabilitator and presenter of wildlife education programs, explained to me how people’s intolerance for some reptilian behavior can make them susceptible for relinquishment. While dogs and cats face some temperament changes at sexual maturity, they are generally manageable to their owners though spaying and neutering. Isaac stated that many reptile owners do not realize that their pet reptiles may also go through physical and behavioral changes. Once again, the example of the green iguana arises. At sexual maturity, the iguana can become territorial and aggressive towards their owners who were once able to handle them with ease. The owners then no longer want to have to deal with the animal. This is a sore spot for Isaac who believes that anyone choosing to own such a creature needs to be aware that reptiles are not a domesticated species. “By owning a reptile, you must be able to handle the natural instincts of the animal that may occur later in life; they are wild animals in enclosed environments” (Isaac, 2007). She feels that with all the educational resources available, no one should be making these types of mistakes about the nature of reptiles. Likewise, Lisa Lagos expressed a similar opinion saying that she doesn’t believe that the problem has to do with a lack of knowledge about the nature of the animal, but rather the problem is about the nature of humans. She stated that people do not like to be told what they can and cannot do or own, and therefore would rather make their own mistakes.

People will buy an animal because they think it's cool, and then realize that they are in over their heads and give it up (Lagos, 2007). An example of this conduct is in snake owners. The snake that was purchased as a foot long baby that ate pinky mice may grow into a six foot predator that hunts live rabbits. People ignore the true nature of the snake as a predator and are not willing to feed it another animal that they see as a cuddly pet. Isaac says she often sees animals that have been passed around from owner to owner, or haven't been fed for months. Since reptiles take a lot longer than mammals to succumb to death, she sees some animals in really poor shape. This was also a concern addressed by Richard Gerbasi who said that a lot of sick animals never make it into the shelters. People either release them into the wild, or they die on their own (Gerbasi, 2007).

The next most frequently cited reason for relinquishment at the shelters was the Moving/Landlord category. This answer meant that the owners were moving and couldn't take the pet reptile with them, or that their landlord didn't allow reptiles in the facility. However, Ann-Elizabeth Nash was quick to point out that the moving answer can be very misleading. She explained how some people that give that answer are simply moving down the street and use it as an excuse to change their lifestyle and get rid of a pet. Lieutenant Dan DeSousa, Administrative Supervisor at the San Diego DAS, expressed that owners often fail to live up to the responsibilities of having a pet. "If you have an animal and are moving, people should be willing to find a place that accepts the animal and not use it as a poor excuse to skip out on your duties to the pet" (DeSousa, 2007). Needless to say, there are many landlords that just do not allow pets. This can create a legitimate concern for people who are facing financial or other constraints that won't let them move to a location that allows pets.

Reasons for Surrender of Dogs & Cats versus Reptiles

In order to try to decipher if there are differences in reasons for relinquishment based on the taxonomy of the pet, it was important for this research to also look into the reasons for relinquishment of dogs and cats at the same shelters. While that particular database information was only available to me through the MSPCA, ARL, and San Diego DAS, all five organizations discussed the topic in the interviews. The main reason given for relinquishment of dogs to the ARL was the No Longer Want category. In this category, the most frequently cited reason was that the owner had no time for the animal. As for cats, the most common reason was the Expense/Space category; specifically the answer of “too many cats” was by far the most common answer. The MSPCA’s most frequently cited answer for relinquishment of dogs was under the Moving/Landlord category. For cats the answer was again the Expense/Space category with the specific answer of “too many cats.” The San Diego DAS only had the reasons for dogs, and the most common was in the Sick/Injured category. Other common answers fell under the categories of Personal Reasons for cats and dogs and Temperament Issues for dogs.

The reasons for relinquishment in dogs seem to be similar to the reasons cited for reptiles, with the issues of owners having no time, or that the animal is just too much responsibility. However, the main reason for cat relinquishment is that the owner had too many of them. This wasn’t a common answer among reptile owners, or even that frequent in dog owners. Richard Gerbasi was able to shed some light on this phenomenon from his many years of experience working at the HSLF in the northeastern United States. He explained that currently many more dog owners are willing to spay or neuter their

animals because of behavioral problems that ensue when they reach sexual maturity, such as marking, because owners don't want the dogs marking in the house. Cats on the other hand don't get spayed or neutered as often because when they have unwanted behaviors, many owners just send them outside. Cats can reproduce very quickly and owners soon end up with more than they bargained for. This has contributed to the decline in dog overpopulation and increase in cat overpopulation in the northeast (Gerbasi, 2007). Since overpopulation is not an issue in reptiles, the answer of "too many animals" is not common. However, reasons in the same category were frequent such as no space or too costly. The moving/landlord reason was an issue for reptiles, cats, and dogs. As discussed earlier, it is hard to say whether or not the owners cited the moving reason for relinquishment because they had no alternative but to leave the animal behind. Other possibilities include that they weren't willing to find housing that accepted pet, or were using the move as a way to start over and didn't want the pet anymore. The moving/landlord answer is an area that needs further investigation into the true cause for surrendering the pet.

Human-Animal Bond

One question that I was very interested in learning more about was whether or not humans experienced different or lesser types of bonding with pet reptiles than with other species. If so, this attitude towards reptiles could contribute to their being considered "lower" animals, and therefore may be more apt to be disposed of by their owners. However, in my interviews with the shelter employees, I found that most of them believed that this was not the case. While they agreed that the bond that occurs between a

human and a reptile is primarily one-sided with the human developing the attachment, Jean Weber, Lt. DeSousa and Lisa Lagos all agreed that humans can have just as strong a bond with a reptile than with their dog or cat. They all explained that people have differing passions and if they really enjoy reptiles, they can develop a strong attachment to the animal. Ann-Elizabeth Nash described the human-animal bond as really “a bond the human has with another animal, and not the other way around” (Nash, 2007). She sees it as something the human wants from the animal and said that many reptile owners have a bond with their reptile that is as strong as someone would have with their dog or cat because that bond is a lot about what that human receives from the animal. By accepting the reptile for what it is, it is possible to get that same satisfaction as one would with a dog or cat (Nash, 2007).

However, it is important to point out that just because bonding with a reptile is possible, doesn't mean that it has to happen or that it necessarily makes humans better owners. Nash also described some reptile owners as having a “collector mentality” in which they are only interested in having the newest fad species, and not the companionship of having a pet. Likewise, Marla Isaac described reptiles as being “too easily replaced” (Isaac, 2007). If the owner doesn't like the species anymore, it bites, or they just don't want it anymore, the mentality is just to throw it away. Richard Gerbasi said that while he doesn't think that bond between humans and reptiles is as intense as it can be in dogs and cats, he doesn't believe that the species of animal is the cause for the disposable pet mentality. Instead, he claims that it is a “cultural issue with the people of our county” (Gerbasi, 2007). The number of reptiles being turned over to shelters is relatively small compared to the literally millions of cats being dumped on shelters

(Gerbasi, 2007). Despite the possibility of owners developing a strong human-animal bond with their pet, these animals are also being considered disposable. When it comes down to it, the idea of reptiles as disposable pets has a lot less to do with the taxonomy and behavior of the animal, and a lot more to do with the owner. Based on these discussions, it seems that people just decide that they are no longer interested in the responsibility of caring for another living creature.

Outcomes of Reptiles Taken In by the Shelters

Another area of interest for this research was to figure out what was happening to these reptiles after they were admitted by the shelters. As it turns out, the possibilities for unwanted reptiles are relatively optimistic. The most frequent outcomes for reptiles at the five sheltering organizations were to be transferred to another facility, or to be adopted. According to the ARL and the MSPCA, the transferred animals either went to a permanent sanctuary or to another rescue group/rehabilitator for adoption at a later time. Most reptiles listed as adopted were adopted out into private homes. Euthanasia occurred only for reptiles with severe injuries or illness, or if temperament issues made them non-adoptable. While only a small percentage of reptiles in the shelters were wildlife, animals that could be rehabilitated and released to the proper environment were. Since reptiles are not in overabundance at the shelters, most animals have a good opportunity of getting a second chance on life.

Policy Implications

Governmental Policy

Throughout the last few decades, the trade in exotic animals has skyrocketed largely due to facilitation from the internet. Never has it been easier to acquire an exotic pet through a pet store or private breeder. This has its benefits for humans, and its pitfalls for reptiles. The majority of reptiles kept as pets in the United States are captured from the wild or were born from wild-caught parents (Franke and Telecky, 2001). What types of laws are in place to protect these animals? Unfortunately, there are not many, and the ones in place generally pertain only to protected species. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international treaty, ratified by more than 150 countries that regulates international trade in certain protected species. In the U.S., CITES is implemented through the Endangered Species Act (ESA), which makes it illegal to import, export, harass, harm, kill, pursue, hunt, shoot, wound, trap, capture, collect, take, possess, sell, deliver, carry, transport, ship, or offer for sale in interstate commerce any species of plant or animal that has been listed as threatened or endangered pursuant to the ESA (Franke and Telecky, 2001). Violation of the act carries a maximum penalty of one-year imprisonment and fines of up to \$100,000. Again, this act only applies to species that are federally listed as threatened or endangered, and does nothing to protect other species.

The Lacey Act, passed by the U.S. Congress in 1900, is a law that prohibits the import, export, transportation, sale, acquisition, or purchase of fish, wildlife, or plants that are taken, possessed, transported, or sold in violation of any federal, state, tribal, or

foreign law (Franke and Telecky, 2001). Similar to the ESA, the Lacey Act only applies to specific species, and does nothing to protect the welfare of reptiles. While amendments have been made to the act that govern ‘humane and healthful’ transport of animals, these amendments do not apply to reptiles or amphibians. Therefore, the trade and transport of reptiles for the pet industry is virtually unregulated. Likewise, reptiles and amphibians receive no protections under the Animal Welfare Act (AWA). Initially passed in 1966, the AWA regulates the transport, sale, housing, care, handling, treatment of animals in commerce and exhibition. Needless to say, animals are defined as all “warm-blooded vertebrates,” and therefore reptiles and amphibians are excluded from protections. In addition, retail pet stores and breeders that sell directly to the public are not covered by the AWA (USDA, 2007). Reptiles and amphibians are out of luck on virtually all accounts. The laws that apply to reptiles and amphibians are generally State laws and local ordinances governing what species are allowed to be owned as pets in certain areas and anticruelty statutes, which are not frequently enforced in cases of reptile abuse (Franke and Telecky, 2001).

The Pet Trade Industry

What effects does lack of protection from the government have on the public policy of the pet trade industry? It appears that the failure of the government to include reptiles in its regulations has led to serious welfare concerns for animals involved in the pet trade industry. Marla Isaac, the wildlife rehabilitator and animal educator who takes in many reptiles from the MSPCA and ARL expressed this opinion to me in our interview. Before undertaking her current job of 27 years as an animal rehabilitator and educator, Isaac herself was a reptile breeder who supplied animals for the pet trade. After about four to five years in the business, she began to see animals coming back to her in horrible shape, and noticed the poor way in which other breeders took care of their animals. Disgusted by the way animals were bred repeatedly without breaks and the lack of concern for their individual welfare, Isaac got out of the business and dedicated her life to changing people's opinions about reptiles and providing humane treatment to reptiles in her care. She expressed to me that she believes that some breeders are fully aware of how wrongly they are treating their reptiles, but that they choose not to care because they are more concerned about making a profit. "Reptiles are a commodity and are not considered on the high-order of things" (Isaac, 2007). While Isaac says that the pet industry has improved in some ways such as providing more appropriate housing and better products for animals, she doesn't believe that the welfare of reptiles has improved much because the goal of the business is to make money.

The employees of the organizations profiled all had similar views on the pet store industry. Jean Weber of the MSPCA said that there are responsible and not responsible

pet stores out there, but the bottom line is that they are there to make money. “While a shelter can reject potential adopters if they don’t seem like they will provide the appropriate care to an animal, you probably won’t see a pet store refusing to sell an animal to a customer” (Weber, 2007). Furthermore, she doesn’t believe that they always provide accurate information about the unique needs of reptiles, which may contribute to their owners deciding to surrender them. Richard Gerbasi of the HSLF said that the pet industry will “meet the demand (for exotic reptiles) whether or not it’s the right thing for the animal or not,” and doesn’t believe that most exotics species belong in people’s homes anyway. Reptiles require control of a wide range of factors in captive environments such as heat, humidity, light, and nutrition, making them very difficult pets to properly care for, especially during trade and transport. Since there are little to no regulations in place for reptiles, they often pay the ultimate price for the industry. Until the government sets a precedent that says it is not acceptable to treat reptiles as lower species not worthy of protection under the law, I feel it is fair to assume that the public policy of giving poor treatment of reptiles bred, transported, and sold for the pet industry will continue.

Limitations and Recommendations for Future Research

As an exploratory study, the current research on unwanted pet reptiles is preliminary. Although the data were collected from some very prominent shelters across the country, the findings in no way provide a complete representation of the issue and are in fact just scratching the surface. The data were only from a short time frame, and information was missing from many of the cases. Furthermore, questions of inaccuracy arise from the data such as are the reasons owners give about surrendering their animal truthful, as well as general errors in data recording and transferring of files.

The next step in this research would be to collect a wider range of data from many more shelters across the country, and encourage shelters to keep more detailed records of the reasons for relinquishment of pets and their outcomes. In addition to gathering significant amounts of data from the shelters, it would be essential to investigate reptiles in the pet trade from talking to breeders, dealers, pet stores, and the people who buy these animals. Interviews and surveys of reptile owners about owning reptiles could provide significant advances in understanding the problem of unwanted reptiles.

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Appendix A: Letter Sent to SAWA Members

Dear SAWA members,

I am writing on behalf of Emily Wittman, a graduate student at the Animals and Public Policy Program at Tufts University's Cummings School of Veterinary Medicine. She is working with Dr. Gary Patronek, Director of Animal Welfare and Protection at the Animal Rescue League of Boston, on a research project in which she will be examining the dynamics of the relinquished pet reptile population in the United States.

Her goal for the project is to gain a better understanding of what animals are being given up, in what numbers, and for what reasons in order to garner information about possible national trends, as well as to characterize the nature of relinquishment of reptiles. We think this is a worthwhile student project to support and encourage, and are extending a request to SAWA members to contribute some simple data to this study. If your shelter uses Chameleon, this should be a very straightforward process.

If it would be possible for you to assist us, please send Emily a spreadsheet containing data on age, species, number, and outcome, as well as any information recorded about reasons for relinquishment for the past 10 years if possible. Also, if you could provide the approximate human population served by your shelter, that would be appreciated.

No client identifiers need be included. The data would be reported in summary form, and by state, but individual shelters would not be identified. Thank you very much for your time and consideration!

If you have any questions, please contact Dr Gary Patronek 617-226-5636.
gaptronek@arlboston.org

Please send data to: Emily.wittman@tufts.edu

Sincerely,

Jenny Lindamood
Director of Finance
Animal Rescue League of Boston

Appendix B: List of Questions Asked to Organization Employees during Interviews

1. What is the mission of your organization?
2. How do reptiles fit into your education/community outreach programs?
3. What are the shelter's policies on reptiles?
4. Are all species accepted?
5. Do you do wildlife rehabilitation?
6. How many reptiles can your facility care for at one time?
7. What type of special equipment/housing is available for reptiles?
8. Are staff members trained in reptile care?
9. Do you employ exotic veterinarians?
10. Do you receive animals confiscated from cruelty cases?
11. What are most commonly cited reasons for reptile relinquishment?
12. What are the major health problems seen in incoming reptiles?
13. How often and under what circumstances are reptiles euthanized?
14. How often are reptiles adopted into private homes?
15. If not adopted into private homes, where else do they go?
16. Do you have a time limit on how long you will care for a reptile until it's adopted?
17. Have any previously adopted animals been returned to the shelter?
18. Are certain species harder to adopt out than others?
19. Are certain species surrendered more than others?
20. Have you seen any trends in species coming into the shelter?

21. Do you think the pet industry contributes to the problem of unwanted reptiles?
22. If so, how and what should be changed?
23. What type of screening is required to adopt a reptile?
24. Are potential adopters required to undergo any special training?
25. Do you give them specific housing requirements?
26. What is the organizations position on the owning of exotic animals?
27. Do you try to discourage the public from owning exotics?
28. Do you feel people have less respect for reptiles than other animals?
29. Do you think there is a difference in the human-animal bond in reptiles as opposed to dogs and cats?
30. How should shelters prepare for incoming reptiles?