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Solving Urban Problems Associated With Small Animals

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Submitted by

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ABSTRACT: Smell animals have been drawn into the urban setting, and as a consequence of their contact with man their populations are growing. The result of this growth is damage to man's property. We must take steps to reduce damage caused by wildlife in urban areas.

I. INTRODUCTION

Mankind has brought upon itself the issues of animal damage control. The problem began the day communities were formed by people banding together for mutual defense, protection and survival. In this presentation I will attempt to present some common sense solutions to wildlife damage problems, keeping in mind general overall goals. These goals are ones which all groups should be able to agree upon: We all want to keep sufficient numbers of animals of each species in existence to make them viable, if feasible. We want a reasonably good quality of life for people and animals. We want reasonable access to wildlife and animals, but we also want to protect our property. Above all we want to maintain the health of humans. This presentation

is done from the point of view of a wildlife damage control specialist, and draws upon my experience dealing with people's problems with wildlife in Houston.

When we speak of "Small" animals we refer to these non-domesticated mammalian species: raccoons, skunks, squirrels, bats, nutria, opossum, armadillos, gophers, rats, and to a lesser degree moles and beavers. Raccoons and skunks in particular will be mentioned to cite examples of the methods of control. In the animal damage control program we do not work with game animals or endangered species unless permitted to do so by the proper law enforcement agency. The one exception to this is the squirrel, which is clasified as a game animal.

The animals listed above are generally not protected by law in Texas.. They can be killed at any time. The law may not forbid their killing, but it may regulate the purpose of their use after killing them, and the method of killing. If the hide can be exchanged for money, a permit to have the pelt in one's possession is required by law. No pesticides are presently available for consumer use which are effective to control these animals, so trapping or shooting are the only effective means of capture. In many cities shooting and trapping are either banned or heavily regulated, thus removing the only practical means of killing these "unprotected" animals.

II. INVOLVEMENT OF SMALL ANIMALS IN THE URBAN SETTING

The extent these small animals are involved in the urban setting is graphically represented by the dollar value of resource

losses in Texas attributed to them as stated in the 1978 annual report. (See Chart "A"). Total damage reports for 130 rural locations was $154,896. This contrasts with damage-reports from 11 urban locations, which amounted to $197,838. Chart "B" provides a further breakdown according to species causing the damage.

Today we have a policy that can be generally stated as control limited to non-protected individuals of a species at the general location at which damage has occurred, or where it could occur. This control involves the use of selective methods of control, limited by a maze of regulations.

Resource losses are generally reported in dollars, rather than in word descriptions. Such dollar figures alone cannot fully explain the loss to those who suffer it. A beautiful tree can have great aesthetic value to its owner. It can add immensely to the value of his property. It can provide him with income if it bears fruit he can sell. Such trees are vulnerable to a number of small animals living in the urban environment. The most direct (and least likely) damage to the tree can come from a beaver. Such damage is highly visible, and the damage loss can be measured fairly easily. Other kinds of damage are not so easily measurable, because they are slower and less easy to detect. These include the effects of armadillos, squirrels, rats, or raccoons. There are, of course, other losses besides aesthetic, losses of property value or losses of income. Small animals such as roof rats can disturb your sleep running around your attic or in your walls. They can be very difficult to control if they have ample food

left by squirrels. A skunk may cause little measurable damage to property, but a squirt from one of them can cause a significant intangible amount of damage to property! Small animals have a large potential to damage property. Aramadillos can undermine small bushes, tear up yards, and even collapse a driveway. (I saw one such example, which ended up costing the victim $850 to have his driveway rebuilt).

III. THE MOVEMENT OF THE CITY TOWARD WILDLIFE/OUR AMBIVALENT ATTITUDE TOWARD WILDLIFE

How did small animals get to the city? The city came to them. Due to theartificial environment man has created for wildlife through pet feeding, landscaping close to buildings passing protective ordinances, and legislation against altering a natural environment mankind has attracted small mammals to his living space, and has even helped them to expand their general populations. One must keep in mind that the end result has been a greater population of wildlife closer to human dwellings than exist out in the'wild." In cities, where unlimited shelter, foor and water exists, a breeding population can grow astronomically.

The value of wildlife to man varies with the philosophy of the one making this value judgment. To some it improves the aesthetic value of the urban environment. To others it improves the property value of dwellings which can be advertised as being in a "natural" ambience. Many people view living with animals as an essential element of 'getting back to nature." The latter philosophy has inspired some urban dwellers to "farm" undomesticated wildlife in their backyard. One landlord I had some contact with admitted that

he regularly scattered large sacks of dog food around the cabins he rented out. He attributed part of his success in keeping the cabins rented to the presence of raccoons in the area. Once these raccoons made themselves at home they began breaking into the roofs of the cabins to make nests, and otherwise make themselves comfortable. They ended causing considerably more damage than the value of the dogfood originally fed them, and the landlord had to kill a large number of them.

Many people's philosophy concerning the connection between wildlife and the good life comes from a simplistic view instilled to a great degree by the media. Media stories instill in people a romantic view of gentle and idyllic wildlife. Such romantic views are hard to rebut. Federal and State regulatory agencies are not particularly suited to rebut such popular myths, and end up only attempting to keep their own name from being used to endorse such popular views, written in articles which often end suggesting that the reader contact a federal or state agency dealing with wildlife for "further information." Such further information often must start by reeducating the person making the inquiries on misinformation he has acquired from media sources.

An interesting example on romantic views of nature comes from an article in Southwest Airlines magazine, November 1977, titled "Our Vanishing Wildlife.'" (Airline inflight magazines have provided surprisingly little of the known research on wildlife problems). In the article the author states,"the greatest instruments

of modern science cannot bring back the passenger pigeon and the distant thuder of a million beating wings." This article puts science and wildlife in opposition, and also provides the interesting image of a half million birds in flight, an image more reminiscent of an Alfred Hitchcock movie than an idyllic wildlife scene from Grizzly Adams.

The national protection of wildlife as a public "trust" has contributed to the notion that methods should be implimented to increase and stockpile wildlife or there may not be anything left of our wildlife for future generations to enjoy. The desire to do one's part to assist wildlife has encouraged relocation of animals. The intention is good on the part of homeowners, but the results can be ever increasing damage. After being trapped once, animals could resist being attracted into cage-type traps. Wildlife agencies are expected to find a solution to this new problem that is selective, economical, non-lethal, etc., which is not an easy task.

The historical ideal of each person having the right to protect his property is in conflict with the popular sentiment of today which is all wildlife needs total protection. Unfortunately, one problem can lead to another in urban areas. I investigated one case where pigeons were leaving droppings on a cast iron stairway of an apartment house. The steps were slippery and dangerous. Pigeons had chosen the apartment house roof because neighbors were putting out ample supplies of food for squirrels and birds. The

neighbors' actions were perfectly legal until the roof rats were attracted to the bird seed. At that point sanitation laws were enforced against such neighbors and apartment dwellers were forbidden to feed wildlife. Had squirrel infestations been a problem, measures to control squirrels would have been usable only if they were found destroying a crop. The apartment building was not considered a crop.

Assumptions and psuedo-scientific theories have created conflicts. Everyone seems to have strong feelings about wildlife, and his own set of scientific theories to suit his own purposes, and there are no referees. One resident of Houston called to tell me she was grateful for the loan of a cage trap for the removal of squirrels. She was concerned about the "balance of nature" so she had taken 8 "naked-tailed" squirrels she had caught and released them at the nearest city park. She didn't realize they were roof rats.

Conflicts are inevitable, and our scientific theories and historical ideals will not mesh into a workable plan of action until we have urban wildlife research. Very little documented research on minor predators in urban areas exists. However, in Natural History magazine, November 1978, I found an article written by Darrell Cauley and James Schinner concerning the increased density of raccoons studied in Cincinnati, Ohio. The article was titled "The Cincinnati Raccoons." Raccoons made there dens in flood sewers, refuse dumps, attics, garages, chimneys and even

in an abandoned sofa. Decline in recapture was documented. The population increased with the only control on it being distemper. Imagine the implications of this study for a city such as Houston. Hundreds of families move into the Houston area each month. Houston has a milder climate than Cincinnati, ample year round food supplies, and more open home construction (wood shingle roofs) when compared to that of a northern city.

My experiences in working with raccoons are similar to Mr. Cauley's and Mr. Schinner's. Harris county (where Houston is located) has 'hundreds of miles of bayous, uncovered flood sewers, and drainage ditches that give raccoons protective cover and mobility. Unlike the Cincinnati study, the Houston raccoons are not tagged in any way so there is no accurate way of telling their movements or density. I only have anecdotal records to relate many of my experiences since we are not involved in research. I believe the past experience of Houston raccoons with traps makes them "trap-smart" and they will not allow themselves to be caught again in a similar trap. To overcome trap-smartness, we must vary trigger mechanisms, use noise and scent attractants, and vary the methods of placing the traps. The decline in capturing raccoons does not indicate a decline in population. It does imply that the only method of control effective and accepted in urban areas is obsolete. Other measures of control should be developed that are culturally, politically, socially, legally, biologically, ecologically, and economically sound. The use of

traps can have a negative impact as experienced in San Antonio, Texas. A homeowner caught a raccoon in a cage trap. Several high school students saw the trapped animal, entered the property, released the animal, and ran over the cage with a pickup truck to protest the use of such traps.

We have litte documentation on how long raccoons live in urban areas or how they transmit rabies to each other. If the urban raccoon population is naturally exposed to rabies and it is not fatal, we need to know the effect of stress during the relocation of raccoons, the affect on human populations, and the affect on future offspring of urbanized raccoons. The non-aggressive nature of well-fed raccoons can easily lull the public into thinking that they are tame and can be kept as pets (even after sexual maturity) or that they are healthier than the raccoons found in the wild.

When there is a build up of wildlife, the breeding stock builds up. The presence of raccoons does not indicate damage has occurred. However, we have documented proof they are capable of being destructive and as their numbers increase, damage could occur.

IV. EXAMPLES OF SMALL ANIMAL PROBLEMS: RACCOONS

The following are examples of damage small animals can cause to property, to people and their pets, and by transmission of disease. The solution to the dilema of how to get control without hurting urban wildlife and resolving the conflict between people concerning the need for both protection and control has been to leave the decision of the fate of animals to each resident.

Without a uniform plan of action, these kinds of things have occurred:

a.) Mobil homes are particularly weak structures around the floor area. Raccoons tore into the insulation of one to make a den and the next door neighbors put out food daily. Air conditioning pipes were destroyed and after gaining entry into the trailer through a floor duct, the refrigerator was raided. After setting out a trap, it was stolen and no raccoons were removed. The trailer was sold.

b.) Raccoons can cause a resident to spend a lot of money even though the animal did not destroy property. A resident wanting raccoons removed from an attic space called a pest control operator who would not do the work for less than $80. The homeowner shot the raccoon to save money. Baby raccoons were heard later and died in the wall. A carpenter charged $85 to repair the sheet rock and wallpaper.

c.) The behavior of people living in multi-unit dwellings can make an effective control program almost impossible to carry out. An apartment manager could not remove a raccoon from the top of a 3-story building. After hiring a maintenance crew to solve the problem, the trap-shy animal would not enter a cage trap. The repairmen referred the manager to my office. I investigated and found holes torn in fire walls. I warned the manager of the danger and potential insurance problems if the situation was not corrected. The raccoons used the fire wall damage to gain access to areas people could not get into. One animal was trapped,

one trap was stolen, and residents fed the other, untrapped, and "abandoned" raccoons. Eventually a raccoon found an attic door in the ceiling above a closet. A mink coat was torn and other expensive clothing was ruined.

d.) Children can be severly injured by wildlife taken as "pets." On October 19, 1976 5-week-old Charles Scott was attacked in the bedroom of his grandmother's home by a pet raccoon. The child was almost chewed to death, His father killed the raccoon with his bare hands, getting scratched and bitten himself. The following day a second baby was mauled by a raccoon. 3-week-old Patricia Gerda was almost killed by the raccoon her family had allowed to roam freely around the house, on the assumption that it was domesticated. Patricia also required over 100 stiches.

In response to the two assaults mentioned above, and to other problems involving unusual undomesticated wildlife that people were keeping as pets,the city of Houston passed an ordinance (Ord. 76-2286) which prohibits maintining or possessing wild animals in any way, other than confinement, and which requires that the animals be kept at least 300 feet from any building being used for human habitation.

Many urban dwellers idealize their responses to wildlife when asked what they would do if confronted with various species. Television programs give the impression wildlife have human reasoning, are able to talk, and have human emotions. However in real life wildlife turn out to be less reasoning, and more aggressive.

Those animals who respond in a more passive manner or in a friendly manner are rewarded with food, captured and made a "pet." When these wild animals reach adulthood the cost of feeding and the animals'return to non-domesticated instincts may make the owner realize the foolishness of trying to keep this animal as a pet.

Residents report to me that dogs give them a feeling of security, both from threats involving human beings and wild animals. The use of dogs to protect against wildlife, and casual contacts between domesticated animals such as dogs or cats can result in a number of undesirable consequences. These include injured pets, inhumane and tortorous treatment of wildlife, transmission of diseases carried by wildlife, and injuries to people trying to protect their pets. A raccoon cornered by a dog-bit the dog's owner when he came out to investigate what the dog was barking at and brushed by the bush where the raccoon was hiding. This occured at an apartment which encouraged raccoons to come around, and the apartment owner became concerned that the injured renter might sue, and that this incident might have adverse effects upon his insurance rates.

The response of the average person to an aggressive and threatening animal is usually not considered by legislators who draft wildlife protection-la%. It can result in such undesirable behavior as: 1) inhumane treatment, 2) unnecessary violence such as clubbing or beating, 3) exposure to diseases carried by the animal, 4) unsafe handling practices, 5) unnecessary property damage, 6) over-kill, 7) illegal means of killing. All of these consequences carry the potential for unpopular media exposure

for wildlife control agencies, who are supposed to be available to assist those with wildlife problems, so that these unfortunate consequences do not occur. All the above result from conflict. The end result of every control problem will be determined by the place the animals chose to exist and the methods available to solve the problem, such as confining, transporting, relocating, or killing the animal.

The public wants humane treatment of animals. Human treatment means getting to the end result of our control measures as quickly as possible. If the end result is intended to be longer life for the animal, the animal should be trapped and relocated as soon as possible. There are difficulties with this. When an animal has no specialized preference for food or habitat, selective capture can be difficult to achieve. Also, if urban wildlife is well fed, food will not induced it to walk into a cage trap. If the animal is "trap-smart" it cannt be trapped using ordinary traps acceptable in urban areas. If the animal is diseased, dangerous or uncontrollable there is ordinarily no place you would want to relocate it and no feasible means of control but killing it. The end result should be administered quickly. Lethal injections are effective but either too expensive or illegal. The only forms of poisons which are commonly available are effective only against rats and mice. Drowning is considered by many to be torture, and therefore inhumane. Suffocation is considered too slow. Steel teghold traps can only restrain an animal, and does not kill. This trap is useful for a trap-smart animal, but is illegal in many urban areas, and may

require training to use skillfully. Shooting the animal is quick, effective, and selective, but it is usually outlawed in urban areas for all except police personnel, who are not involved in wildlife damage control.

Al.1 the above suggests that we have methods of control, but that the most effective are prohibited due to restrictive legislation. The practical effect of such restrictive laws is that ordinary citizens violate them casually, The end result is a general loss of respect for laws and the reasonable goals restrictive legislation is intended to carry out. The purpose of laws are to enable us to live together in harmony and to balance our interests. What we need is more flexible wildlife laws, which protect wildlife, but at the same time allow the homeowner to protect himself and his property. Without such relief from existing laws the average homeowner is left to his own devises, many of which are technically illegal. These include shooting, poisoning, capturing with illegal devices, holding animals for days, relocating the animal to a site where it will cause problems to other people, etc. Many of these methods can be hazardous to people as well as wildlife.

The best example of inflexible laws involves skunks. Skunks can be found in treeless subdivisions where ornamental plants are plentiful, where the soil is composted, and where dogs are restrained. No one should be allowed to relocate skunks because of the potential of these animals to spread diseases. The animal's odor or spraying habit also make it an unwanted resident for any area considering

whether it wants to accept relocation of a skunk. At this point there is no way to kill skunks in urban areas, either through poisoning, shooting, clubbing, suffocation, drowning, without creating negative feedback from the public because of their lack of understanding of these methods. If we cannot use one of the above methods we cannot control skunks. When the public finds out skunks' heads are cut off to test them for rabies this draws negative responses. When environmental control is suggested, homeowners have difficulty destroying parts of their landscape in order to eliminate the skunk's food source.

V. WHAT IS THE SOLUTION?

The public seems to be interested in finding solutions to wildlife problems, but we must go beyond this. Wildlife Damage Control specialists must have the support of research done in urban areas. They must be less dependant upon an informal case by case method of gathering information, such as the anecdotal records I have mentioned in this paper.

Although methods of animal control which involve killing have negative impact on the public we must nonetheless educate the public on the necessity to kill some wildlife in the interest of public safety. A good example of cooperation occured when a newly opened subdivision which bills itself the "liveable forest" asked me how they could attract wildlife to the area. I asked them if they wanted me to publicize their willingness to accept wild animals for relocation to others who were looking for a way

to get rid of their wildlife without killing them. They asked me why anyone would want to get rid of wildlife. After I explained the problems of damage and recapture they voted unanimously to accept only whte-tailed deer.

We need closer cooperation between state and city agencies who do parallel work in the area of animal damage control. Although our duties may be different, closer cooperation would enable us to get information to the public in a more efficient manner. A total program approach is necessary and should not be parcelled out as the issue of endangered wildlife versus the issue of wildlife damage control. Above all, state and federal agencies must define animal damage control in a way that does not present a conflict of interest and encourage the public to form special interest groups that only offer the public what they want to hear. rather than telling the public what it needs to know. State and federal agncies ha e themselves to blame for keeping information away from taxpayers, and not actively soliciting the public's opinions. Better dissemination of existing information could dispel1 present myths, such as that any of the small animals in urban areas that I have discussed in this paper are near extinction, and therefore need special protection. Public information programs are needed to inform the public how they can solve their problems in an effective and legal manner. Finally, we must devise simple and legal means for the average urban homeowner to handle most wildlife problems he will encounter.

Torn between an attempt to get homeowners to obey unworkable

and unrealistic laws, and attempting to take reasonable complaints of homeowners to the policy-making leve, there is more likelihood that wildlife damage control specialists will become, extinct than that any of the animals I have discussed will. Since the animals are probably here to stay, and since conflicts between homeowners and animals are also inevitable, and since wildlife damage control specialists are in short supply, we must, in the last analysis, find solutions which will fulfill the legitimate desire we all have to preserve all species of animals, and to treat all animals humanely, while at the same time allowing the homeowner reasonable and effective means of protecting himself and his property.

CHART - A

Resource losses reported for 1978.

Totals:	Confirmed	Unconfirmed	Combined
Rural:	$ 154,196	$ 700	$ 154,896
Urban:	$ 132,076	$ 65,762	$ 197,838

The Rural damage was reported by 130 employees. The Urban damage was reported by 13 employees located in the il largest cities in Texas.

Complaints and dollar damage is recorded here for these species: raccoons, skunks, rats, gophers, nutria, beaver, birds, squirrels, armadillos, moles and there is no recording for coyotes or bats.

CHART - B

C= we identified
U= report by authetic source
R= 130 employees
*U= 13 employees

1978 ANNUAL REPORT

Resource losses for rural and urban locations.

Species	Location	$'s Confirmed	$'s Unconfirmed
RACCOONS:	Rural	1,276	0
	Urban	22,971	9,604
SKUNKS:	Rural	150	0
	Urban	175	165
RATS:	Rural	16,506	0
	Urban	87,125	29,100
GOPHERS:	Rural	8,178	0
	Urban	5,625	10,338
NUTRIA:	Rural	11,725	0
	Urban	0	0
BEAVER:	Rural	115,386	0
	Urban	4,360	1,035
BIRDS:	Rural	525	0
- U r b a n		4,693	4,137
SQUIRRELS:	Rural	120	700
	Urban	2,663	6,627
MOLES:	Rural	130	0
	Urban	40	649
ARMADILLOS:	Rural	200	0
	Urban	4,424	4,125