Dealing with Unwanted Wildlife in an Urban Environment[1]

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Background

Because of its great diversity of habitat types, Florida is home to more wildlife species than most other states. It is literally impossible to live in this state without seeing or hearing wildlife on a daily basis. Many of these experiences are enjoyable; others are confrontational. Unpleasant encounters with our wild neighbors can result in human death, injury or fear of injury, property damage, or minor nuisances. Some of our frustrations with wildlife can be alleviated by simply learning why a situation occurs. Others require more action-oriented prevention and control techniques.

Understanding Wildlife: Myth v. Facts

Understanding is the key to wildlife problem solving. Knowing why the snake is in your garden, the armadillo is digging up your lawn, or the woodpecker is drilling holes in the side of your house is an essential first step toward resolving these and other wildlife nuisance problems. Often times the reasons are obvious. Snakes prefer shaded areas where they might find a toad, mouse, or other food item. Armadillos don't excavate lawns as a prank. They are merely looking for ants, grubs, and other soil-dwelling insects. Some problems such as woodpeckers damaging house siding may be puzzling and require some research. Pecking in one spot that produces a loud resonating sound is a method used to mark territories. Other types of pecking patterns may be the result of woodpeckers foraging for wood-boring insects that have infested your siding. Sometimes the opinion of a wildlife expert is needed to help interpret your findings.

Misunderstandings are common causes of many frustrations and fears that people have about wildlife. For example, contrary to popular belief, most snakes in Florida couldn't even hurt you let alone kill you. All bats don't carry rabies. Separating myths from facts can alleviate many of these phobias and help you to appreciate wildlife more for their beneficial values, particularly in our urban environments.

Solutions to Some Common Wildlife Problems

Snakes

Problems: Many people have a strong anxiety toward all snakes (*ophidiophobia*). The bites of a few non-venomous snakes can cause noticeable injuries (Figure 1). Venomous snake bites can be lethal (Figure 2). To most people, snakes are unwanted visitors on our properties and in our homes.

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Figure 1. A non-venomous yellow rat snake.

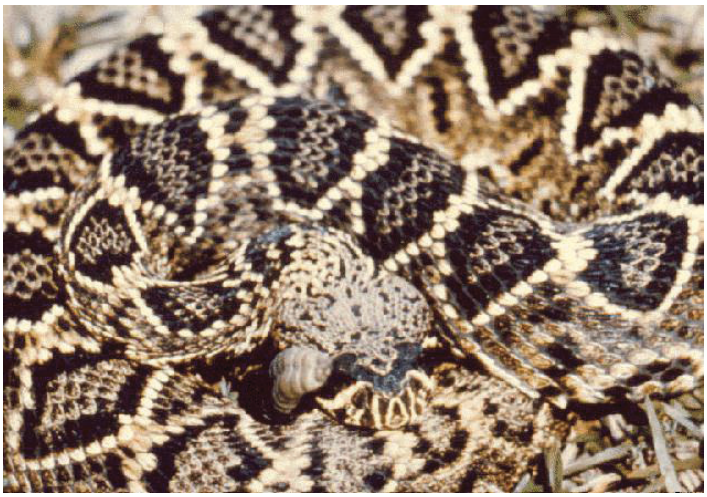

Figure 2. A venomous Eastern diamondback rattlesnake.

Understanding the Problems: People are not born with an innate fear of snakes. It is merely one of those things we were taught at an early age, much like our attitudes toward touching the kitchen range or going into the street. As we grew older we learned that ranges and streets weren't the terrible things that we once thought, but they should be respected. However, our fear of snakes was continually reinforced, and many people have never learned that there is no logical reason to have an extreme dread of all snakes. Statistics show that the potential danger of highway accidents is at least a hundred times greater than the chance of being bitten by a venomous snake. There are over 100,000 cases of dog bite reported in Florida each year compared to only an estimated 200 people bitten by venomous snakes. Snake-bite-related deaths have occurred at a rate of about one every four or five years in Florida. Mortality figures for lightning strikes and bee stings are much greater. Snakes are not aggressive and will not charge or chase after people. Their typical reaction to a human intruder is to crawl away and hide; however, snakes may react differently if they feel threatened. Some will hiss, shake their tails, and even try to bite intimidating objects. All snakes stick out their tongues frequently to smell their environment, much the same way a dog sniffs at things.

Prevention and Control Methods: There are no repellents, toxicants, or fumigants registered for snakes. Many home remedies, such as blood, hair, and various chemicals, may seem to work in some situations. However, unless the item has been scientifically tested, its effectiveness is questionable. The frequency of snake visits to your yard and home can be reduced by eliminating firewood stacks, debris, boards and other objects lying close to the ground, creating preferred cool, damp, and dark shelter or prey habitat areas.

Snakes can be removed from inside buildings by placing glueboards (see Figure 3) or funneled minnow traps (see Figure 4) in snake-traveled areas such as along walls.

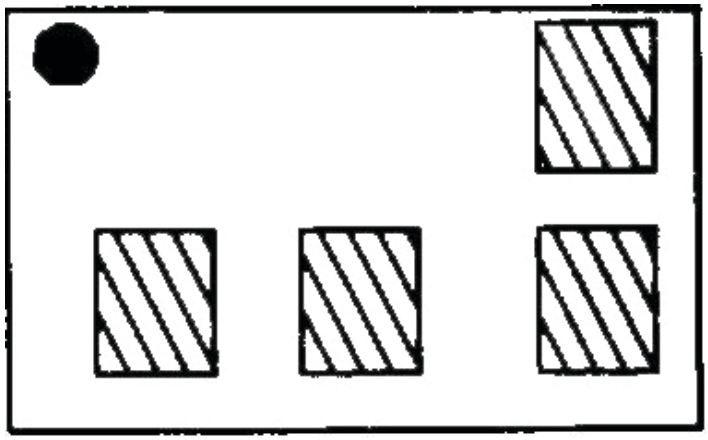

Figure 3. Glueboard for removing snakes.

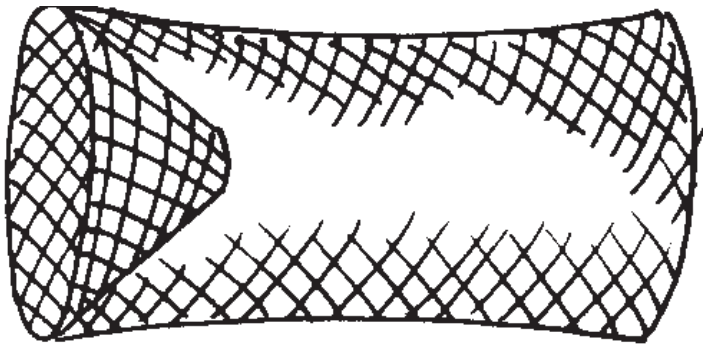

Figure 4. Funneled minnow trap for snakes.

Glueboards have been tested and proven successful at holding even 6 foot diamondback rattlesnakes. Glueboards are sold at hardware stores to control rodents, and minnow traps are sold at bait and tackle shops. They should be nailed to a larger board so the whole assembly can be handled at a safe distance from a stuck snake. Once outside, pouring cooking oil on the glue board will allow the snake to free itself. A snake caught in a minnow trap can be prudently dealt with by scooping the trap up with a beach towel or blanket. These traps can be easily opened to release the snake. A broom also can be used to sweep a snake into a trash can for removal outside.

Armadillos

Problems: The most notable armadillo damage occurs as a result of their rooting in lawns, vegetable gardens, and flower beds (see Figure 5). Armadillos live in dens and some damage also can be caused by their burrowing under foundations, driveways, and other structures.

Figure 5. Damage caused by armadillo routing.

Understanding the Problems: More than 90 percent of the armadillo's diet is made up of insects and their larvae that live in the soil. They also feed on earthworms, scorpions, spiders, and other invertebrates. Armadillos (Figure 6) are most active at night, when they make small cone-shaped holes in the ground while rooting for food.

Figure 6. Armadillo routing for food.

Prevention and Control Methods: There are no successful repellents, toxicants, or fumigants registered for armadillos. The use of insecticides to reduce food sources also has not been proven to stop armadillo digging. A fence slanted outward at a 40° angle, with a portion buried may be a somewhat effective barrier under certain conditions. Although live-trapping armadillos is very difficult, some people have experienced limited success by using a 10x12x32in (25x30x80cm) live or box trap. The bait used by successful trappers is earthworms in a ball of dirt and placed in the toe of an old nylon stocking. Trapping is most effective when leaf litter or soil is placed over the trap entrance. Current Florida law (Florida Fish and Wildlife Conservation Commission Rule 68A-9.010) requires that all animals captured as a "nuisance" either be humanely destroyed or released on the same contiguous property as they are captured to prevent ecological problems or spreading of diseases. Shooting is another effective method to eliminate nuisance armadillos. However, discharging firearms is illegal in some areas and it also is illegal to use artificial lights other than outdoor house lights to aid in shooting at night. Armadillo meat is edible if properly prepared.

Bats

Problems: Bats may enter buildings and become a nuisance by their squeaking, scratching, scrambling, and crawling in attics, walls, and chimneys. Bat droppings can accumulate and cause quite a stench in buildings and an unsightly mess on the outside of buildings. Rabies is a potential health hazard with bats.

Understanding the Problems: Bats are active at night and seek dark and secluded roosting areas during the day. Their natural roosting habitat is caves and trees (see Figure 7)

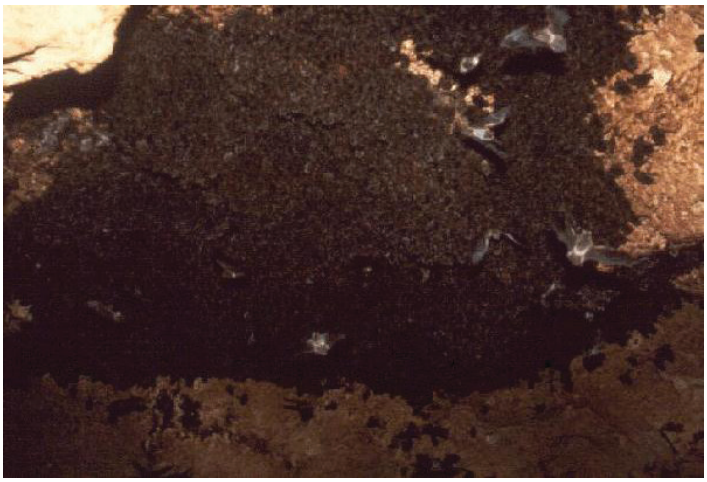

Figure 7. Bats roosting in a cave.

Most bats are able to squeeze through slits and cracks no wider than ⅜ inch. Bats commonly enter a house through the overhang of the roof or eaves. Inside they are most often found in attics, between roofs and ceilings, in crevices around the roof, in walls, in chimneys, and occasionally in crawl spaces. Outside they may roost behind shutters or under wood shingles, roofing, drain gutters, awnings, overhang trim, and flashing around chimneys. Bats also fly around swimming pools to drink and to catch insects. Street and porch lights may attract flying insects which, in

turn, attract bats. The incidence of rabies in bats has been greatly exaggerated. During the past 30 years, only eight human fatalities in the United States and Canada have been attributed to rabid bats. More people die annually from dog attacks, bee stings, lightning, and household accidents than from bat-transmitted rabies.

Prevention and Control Methods: Excluding bats from buildings is the only legal solution (see Figure 8). Exclusion methods can be applied only from August 15 through April 15, outside of the maternity season. During the summer it is not legal to exclude or trap bats because of the high likelihood of dependent baby bats being left inside the structure. Bats should be out of the building before bat proofing begins so as not to seal bats inside. Holes should be blocked after dark in the early evening when the bats have left the structure to feed. Several successful bat excluders with one-way valve doors and funnel screens have been developed. Repellents such naphthalene crystals, illumination, and high frequency sounds have provided temporary relief in some situations. Roosting boxes (see Figure 9) may attract bats that are excluded from a building, but this is not recommended as a reliable bat control method.

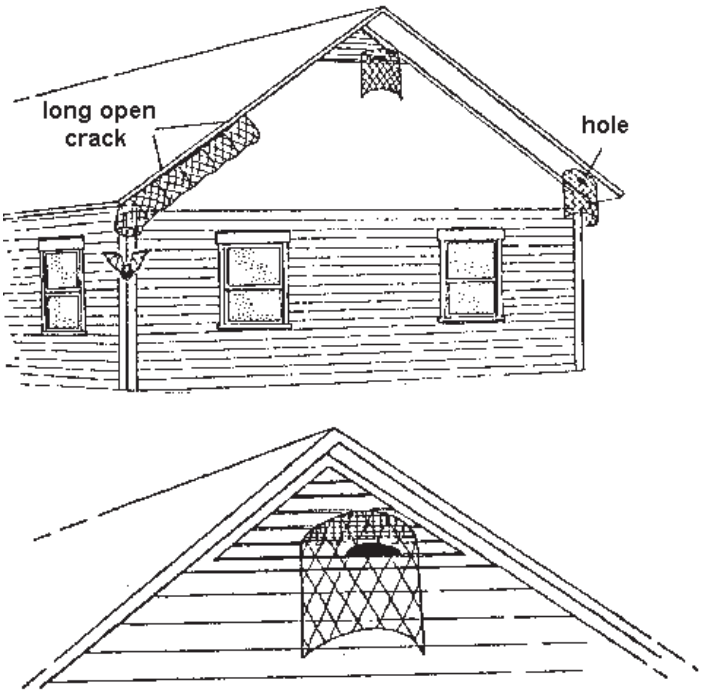

Figure 8. Bat exclusion from buildings.

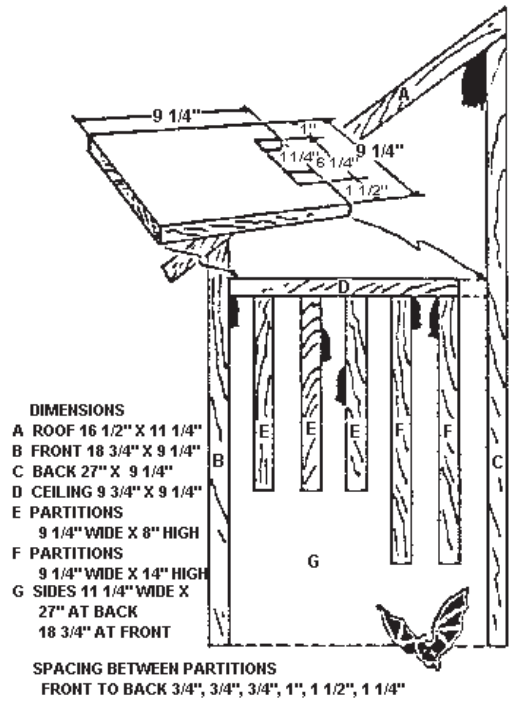

Figure 9. Bat roosting box.

Woodpeckers

Problems: Woodpeckers (Figure 10) can peck holes in wooden house siding, gutters, drainpipes, and chimney and exhaust vents. The noise and damage from this pecking activity sometimes is annoying.

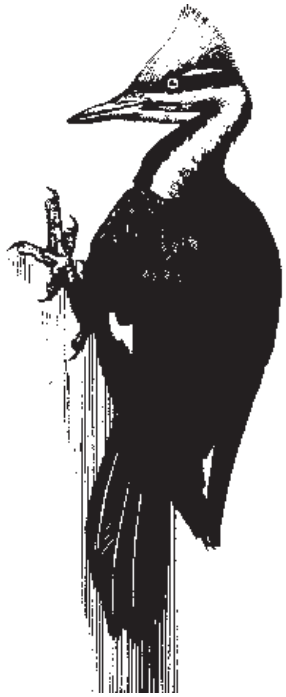

Figure 10. Pileated woodpecker.

Understanding the Problems: There are three reasons why woodpeckers peck on houses. The first and most common is to establish territories and attract mates. This predominantly springtime behavior, called drumming, generally is

done in rapid succession on resonant dead tree trunks or limbs. However, buildings and utility poles, when available, are often alternatives. Drumming may occur a number of times during a single day, and may last for some days or months.

The second reason woodpeckers attack our houses is to feed on insects that may have infested our siding (Figure 11). They naturally search vertical surfaces of tree trunks and branches for woodboring beetles, carpenter ants, and other insects. The pecking style used for feeding is much different than drumming. Only a few pecks are made and then the resulting hole is explored with the bird's bill and tongue. This behavior will continue until an insect is found or the bird is satisfied that one is not there. Then the woodpecker may hop a few inches away and peck at another place. The damage from this feeding activity usually occurs in horizontal lines that follow tunnels made by the insects.

Figure 11. Woodpecker feeding on tree trunk.

The third reason for woodpecker damage occurs when they excavate nesting cavities through house siding (see Figure 12). Cedar siding is fairly soft and particularly vulnerable to woodpecker attacks of this nature. Fortunately, this attack is not very common.

Prevention and Control Methods: One of the most effective methods of excluding woodpeckers from damaging wood siding is to cover the siding with lightweight mesh nylon or plastic netting hung from the eaves. The netting should be kept at least 3in out from the siding. Another exclusion technique is to cover the siding with sheets of plastic. Woodpeckers will not be able to perch on this smooth surface. Limited success can be obtained in some situations by using model owl or hawk silhouettes or various noise-making devices. Woodpeckers can be very persistent and are not easily driven from their territories or selected pecking sites. For this reason, visual or sound types of repellents should be employed as soon as the problem is identified and before territories are well established.

Figure 12. Woodpecker nesting cavity.

Raccoons, Skunks, and Opossums

Problems: These animals quite often make pests of themselves by getting into garbage cans, eating pet food, getting into attics or beneath houses, and eating home-grown fruits and vegetables. Raccoons are a major carrier of rabies in Florida.

Understanding the Problems: These three mammals are opportunistic and have adapted well to urbanization (see Figure 13). They will eat any plant, insect, or other animal food that is readily available. Raccoons have learned that uncapped chimneys make very adequate substitutes for more traditional hollow den trees.

Figure 13. Urbanized raccoon taking advantage of pet food.

Prevention and Control Methods: Garbage can raids may be prevented by using metal or tough plastic containers with tight-fitting lids. If lids do not fit tightly, it may be necessary to wire, weight, or clamp them down. The containers also should be tied to a support or held on a rack to prevent raccoons from tipping them over. These animals will not be as attracted to your property if you do not leave pet food outside at night. Access to chimneys can be prevented by fastening a commercial cap of sheet metal and hardware cloth over the top of the chimney. These animals can be kept out from underneath houses by sealing off all possible entrances. A good method to determine if the animal is out of the sheltered area is to sprinkle a liberal amount of baking flour near the entrance. Wait until an hour or so after dusk and see if there are any tracks (see Figure 14) leading out of the entrance. If there are, then seal it off. In certain cases, the construction of an electric fence 6in off the ground will solve the problem. Repellents such as naphthalene crystals and noise-making devices may have limited temporary effectiveness.

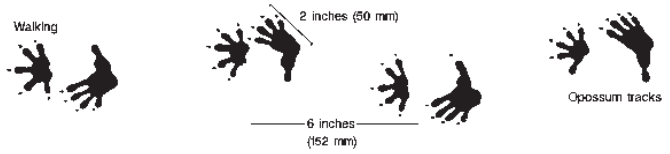

Figure 14. Oppossum tracks.

Live traps baited with sardines or cat food are effective for garden damage situations (see Figure 15). Once an animal is caught, another problem is created—what to do with it. Trap and release of wildlife is seldom biologically sound. Areas that *appear* suitable for release probably are not. Areas without a resident population of the same species as the relocated animal most likely do not meet its habitat requirements. Relocation to already occupied areas causes problems for both the relocated animal and the resident population of the same species. Current Florida law (Florida Fish and Wildlife Conservation Commission Rule 68A-9.010) requires that all animals captured as a "nuisance" either be humanely destroyed or released on the same contiguous property as they are captured to prevent ecological problems or spreading of diseases. Animals can be transported only for the purpose of traveling to a place where euthanization procedures will be performed.

Figure 15. Raccoons caught in a live trap.

State Laws and Rules Related to Wildlife Control Methods

The Florida Constitution has designated the Fish and Wildlife Conservation Commission (FWCC) as the legal steward of the native wildlife resources of the state. The mission of this state agency is to manage freshwater aquatic life and wild animal life and their habitats to perpetuate a diversity of species with densities and distributions that provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

There are certain laws, rules, and regulations with which anyone who is baiting, trapping, transporting, or killing nuisance wildlife should be aware. The following laws have been paraphrased for the sake of brevity.

Laws

Florida Statutes **379.3011 to 379.3017** deal with alligators. It is unlawful to feed or entice wild alligators (Figure 16), or to harvest or sell them without the required permits.

Figure 16. Wild alligator face.

Florida Statutes **379.305, 379.372 and 379.373** prohibit the possession or exhibition of poisonous or venomous reptiles (Figure 17) without first having obtained a special permit, posting a bond, and complying with the safe housing and transportation regulations.

Figure 17. Poisonous Eastern coral snake.

Florida Statute **379.3762** and Rules adopted by the FWC (see Rule 68A-4.001 below) state that it is unlawful to possess certain native or non-indigenous wildlife for pets or otherwise until the appropriate permit is obtained from the Commission. There also is a Rule (see 68A-6 below) that allows many non-native species to be kept without a permit.

Rules

Chapter 68A-4.001, Florida Administrative Code **(F.A.C.)** is the Commission's general prohibition on taking of wildlife. It states "no wildlife or freshwater fish or their nests, eggs, young, homes or dens shall be taken, transported, stored, served, bought, sold, or possessed in any manner or quantity at any time except as specifically permitted by these rules nor shall anyone take, poison, store, buy, sell, possess or wantonly or willfully waste the same except as specifically permitted by these rules."

Chapter 68A-6, F.A.C. prohibits the possession of all wildlife for exhibition, public sale, or personal use unless appropriate permits are obtained from the Commission. This Rule also states pen specifications, and caging and transportation requirements. No permit is required to possess the following wildlife for personal use unless possession of a species is regulated by other Rules of the Commission (e.g., venomous snakes and endangered species): reptiles, gerbils, amphibians, shell parakeets, rats and mice, canaries, moles, shrews, rabbits, hares, squirrels, chipmunks, ferrets (European), lovebirds, guinea pigs, cockatiels, hamsters, parrots, finches, mynah birds, toucans.

Chapter 68A-9.010, F.A.C. allows the killing of destructive mammals except deer or black bear on your property by means other than gun and light, steel traps or poison, provided that the destructive mammals are killed only within the immediate locality where damage is occurring. Birds other than blackbirds, cowbirds, grackles, and crows may be killed only under authority of a special permit issued by the US Fish and Wildlife Service.

Chapter 68A-24.002, F.A.C. allows the taking of opossums (Figure 18) and raccoons with a gun (.22 cal rifle or .410 shotgun) and light at night throughout the year.

Figure 18. Oppossum.

Chapter 68A-24.005, F.A.C. states that no person shall transport within, into, or from the state any wild-trapped, live raccoon.

Chapter 68A-25.003, F.A.C. explains that only designated agent-trappers of the Commission are authorized to take, possess, and kill those nuisance alligators specifically designated by the Commission.