



# Purdue Pesticide Programs

Purdue University Cooperative Extension Service



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## Conflicts with Wildlife Around the Home

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## Conflicts with Wildlife Around the Home

A popular trend is to “naturalize” our backyards. We plant nectar-producing flowers and shrubbery to lure butterflies, and we stock bird feeders with seed and hang suet to entice birds. We add bird and bat houses, birdbaths, and decorative ponds; we plant ornamental flowers and shrubs and grasses. We minimize the area that is mowed and create a more natural look that is very attractive to wildlife; and in doing so—intentionally or not—we signal Mother Nature to *Come on down!*



We enjoy watching the occasional rabbit that visits our yard, we are amused by squirrels’ antics as they try to access the birdseed and as they eat the corn that we have put out for them—and the chipmunks are *so cute!* We might even chuckle at a raccoon’s attempts to raid our garbage cans out back, that is, until we tire of cleaning up after him. The trouble is, where a little is a good thing, too much is bad; and as animals get comfortable in our backyard and take up residence there, suddenly they are not so cute.

It is one thing to observe nature “up close and personal,” but it is quite another when mammals that we have attracted refuse to behave the way we want them to. Welcome friends turn into unwelcome foes when bats invade the attic, chipmunks burrow along foundations, rabbits gnaw on shrubs, raccoons use the chimney as a den, squirrels get into the attic and gnaw on electrical wires, and opossums, skunks, or ground-hogs take up residence under the deck. These activities test the patience of many a backyard wildlife enthusiast. This publication offers realistic techniques that homeowners can implement to kindly evict unwanted mammals and elude the damage and inconvenience that they can cause.



**WILDLIFE: PESTS OR GUESTS?**

# The Who's Who of Nuisance Wildlife

Sometimes the culprit can be identified during the day, like when you observe a squirrel going in and out of your attic vent and suddenly you connect his activity to the noises that you have been hearing. Other times, damage observed during the day can be caused by a nocturnal animal working under the cover of darkness. You may have to look for clues such as animal tracks to determine what is overturning the garbage can or living under the deck; and yes, you might have to look at the size, shape, and color of the droppings to identify some mysterious creature that has become a pest.

**Cottontail Rabbit.** We enjoy watching rabbits outside our window, but the joy is lost when they reek havoc by nibbling on landscape and garden plants—and they always target our most prized ornamentals or the flowers that are just about to bloom!

- Litter size: 2–10
- Litters per year: 2–5 (March–September)
- Legal status: game species
- Droppings: round pea-sized droppings with the consistency of sawdust, usually observed in a loose pile.
- Damage signs: Cottontail rabbits don't rip green plants: they make a clean, 45-degree cut. Tree bark that is chewed one to two feet up the trunk also can be cottontail damage.
- Burrow opening: usually concealed (perhaps under a deck or shed).
- Nest: fur-lined depression in soil beneath low shrubbery or dense foliage.
- Major disease: tularemia



**Opossum: the true garbage eater of Indiana wildlife.** There's never been a garbage can that a opossum has not found worth exploring; and leftovers in your pet's bowl or your compost pile become a smorgasbord for this animal. Throw in an occasional road kill and a opossum can always find food in the city. Almost anywhere (e.g., crawlspaces, attics, decks, and garages) around the typical home can be a rest stop for this nocturnal animal. Some children know that opossums play dead, but many are sadly surprised when they pick up a "dead" opossum by the tail and get bitten as the animal miraculously comes to life.



- Litter size: 5–13
- Litters per year: 1 (March or April)
- Colloquial names: grinner, 'possum

- Legal status: furbearer
- Droppings: vary with food source; usually amorphous blobs.
- Damage signs: vary with the entity damaged (e.g., structures, gardens).
- Burrows: digs holes under porches and deck skirting.
- Major disease: none

**Raccoon.** This “masked bandit” might be the most commonly featured creature on televised nature programs. It often exhibits human-like behavior, washing its food and constantly smiling and contemplating its next move. But the raccoon is a large and sometimes aggressive animal. It commands respect as a carrier of distemper, raccoon roundworm, and, in the eastern part of the United States, raccoon rabies. During the night it scatters trash, looking for food; it digs up turf in search of grubs and worms; and it explores chimneys, attics, and sheds in search of a sheltered area in which to rear its young and/or to escape the elements.



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- Litter size: 2–7
- Litters per year: 1–2 (March–July)
- Colloquial name: coon
- Legal status: furbearer
- Droppings: vary with food source, but frequently similar to cat droppings.
- Damage signs: dug-up and pealed-back areas in turf, torn shingles, etc.
- Den entrance: a 4- to 8-inch opening is adequate for an adult raccoon. Urban sprawl and the accompanying removal of den trees and logs has encouraged local populations of raccoons to seek shelter and den sites in our homes and outbuildings.
- Major diseases: rabies, roundworm

**Night raider—  
caught in the act!**



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**Chipmunk.** This is a very “busy” animal that can be observed for hours stuffing its cheek pouches with spilled seed beneath bird feeders. With each visit to the feeder, its cheeks become swollen with so much seed that cramming in one more seed seems impossible. It can then be followed as it scampers across the yard and makes a bee line straight to its underground nest to horde the stolen seeds. This routine can continue for hours as this very energetic animal makes sure it has plenty of food in its burrow. While chipmunks are small and comical, they can cause serious structural damage as they burrow under driveways, steps, slab patios, retaining walls, and foundations. The undermining of these structures often results in stress cracks and a downward shift. Chipmunks may also dig up and eat flower bulbs.

Chipmunks, like other rodents (mice, woodchucks, beavers, squirrels), must gnaw on hard objects to wear down their teeth. The upper incisors of rodents grow throughout their life. They will gnaw on wood, metal, or other hard materials to keep these teeth worn down, and often this means gnawing on your porch or down spout!

- Litter size: 2–8
- Litters per year: 2 (April–May and August–September)
- Legal status: nongame and unprotected
- Droppings: typical rodent “pellets” are 1/2 to 5/8 inch long.
- Damage signs: gnawed structures; holes; evidence of digging activity.
- Burrow opening: silver-dollar-sized holes in planting beds and beneath landscaping timbers, pavement, etc. Unlike many other burrowing animals, chipmunks may take away the soil that is excavated to make their entrance less conspicuous.
- Major disease: leptospirosis



***Skunk: the one animal whose odor is enough to announce its presence.***

During the spring mating season, the black and white striped males battle each other over females; these very noisy battles are accented by the release of their noxious “perfume.” If the family dog harasses a skunk in your crawlspace, its scent may drive you out of your own home. Talk about getting someone’s attention! Skunks can also dig under foundations, buildings, and decks. Skunk damage to turf can be extensive during late summer as they dig for grubs.



- Litter size: 2–16
- Litters per year: 1 (May)
- Colloquial name: polecat
- Legal status: furbearer
- Droppings: similar to those of a small house cat.
- Damage signs: cone-shaped divots in turf.
- Burrow entrance: digs holes under porches, sheds, decks, etc.
- Major disease: rabies



**Tree Squirrels.** Most wildlife enthusiasts actually make an effort to finesse fox, pine, and gray squirrels into their yards by feeding them corn, peanuts, seeds, or bread. Squirrels may be one of the smartest and most cunning wildlife that we encounter around our homes. Just ask anyone who has tried to keep squirrels off their bird feeders! When a squirrel encounters your newest “fix,” he seems to stop and ponder how to overcome it—and within a few hours he figures it out!



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Squirrels can also jump, climb, or gnaw their way into your home. Squirrels are known arsonists, that is, homes have burned as a result of their chewing on electrical wiring in the attic.

- Litter size: 3–5
- Litters per year: 1–2 (February–early April; July–August)
- Legal status: Fox and gray squirrels are game animals. Red squirrels are unprotected all year, whereas flying squirrels are protected all year.
- Droppings: Pellets are typically 3/4 to 1 inch long.
- Damage signs: gnawing or smear-marks around entry hole.
- Burrow opening: 1–3 inches
- Major disease: tetanus



**Bats.** Most people are extremely frightened of bats, primarily because they are nearly always portrayed as sinister, bloodsucking creatures that do their work in the dark of night. Have you ever seen a mug shot of a bat? Surely it has a face that only a mother could love! It is true that 2–4 percent of bats carry rabies and cause one human death per year in the United States; however, bats rank third behind raccoons and skunks (number 1 in Indiana) in the incidence of wildlife rabies in the U.S. Therefore, if a bat bites you, seek medical attention immediately.

Indiana's bats feed almost exclusively on insects and are therefore very beneficial to humans. A single bat may eat half or more of its body weight in insects each night, and a colony of 150 big brown bats can eat as many as 33 million rootworm beetles each summer.



Indiana's 13 bat species normally roost in hollow trees, under bark, and in caves. But in the warmer months two bat species (the big brown bat and the little brown myotis bat) find our attics ideal sites for raising their young. At night they may return frequently to the roost between their own feedings to nurse their young and to rest. They remain in the roost during daylight hours.

In addition to simply being uninvited guests in the home, bats can be noisy and their droppings can have a strong odor and can stain buildings and windows. Bat excrement may harbor the microscopic fungus that causes the lung disease histoplasmosis.

Most bats leave our attics in the fall to overwinter in natural areas such as caves and abandoned wells. In early spring females return to the same nursery site that they used the previous year. Females give birth in June or July to one or two babies, depending on the species. They breast-feed their young until they can fly on their own, usually by late August.

- Legal status: nongame. Several species are endangered and protected; other species are unprotected.
- Droppings: small (1/2 to 5/8 inch); may appear rodent-like, but will crush into tiny fragments; "shiny" insect parts are visible.
- Damage signs: characteristic odor; smear at entry sites; accumulation of droppings.
- Roost: can enter through a 3/8-inch crack or a dime-sized hole.
- Major diseases: rabies, histoplasmosis

**Groundhog.** This vegetarian mammal also goes by the names woodchuck and whistle pig. Groundhogs can eat one to two pounds of vegetation each day, including turf, vegetable plants, and flower foliage. If you do not actually see this large, 5- to 10-pound rodent you will at least notice the large mound of dirt outside its entrance. But it is the groundhog's large underground tunnels and sleeping chambers that are of concern. Their tunnels have been known to cave in as riding mowers are driven over them. Removal of the groundhog is the first step, but the soil must be backfilled into the burrow as well. Excluding groundhogs from an area with





fencing is also an option. However, this is not 100 percent effective since groundhogs are very good climbers; and unless the fence is trenched they can easily dig under it.

- Litter size: 2–6
- Litters per year: 1 (April–May)
- Colloquial names: whistle pig, woodchuck, marmot
- Legal status: nongame and unprotected
- Droppings: usually not identifiable.
- Damage signs: large dirt mound; plant and landscape damage.
- Major disease: possibly tetanus

## Know the Law Before Taking Action Against Wildlife

State and federal agencies manage numerous wildlife, including many of those that cause problems in and around our homes. The Migratory Bird Treaty Act prohibits shooting, taking, or possessing migratory birds; and since most birds are migratory, it limits what you can do without first consulting the U.S. Fish and Wildlife Service or USDA Wildlife Services. A federal permit is required for most birds; the exceptions are pigeons, house sparrows, starlings, grackles, redwing black birds, and crows. Additional information on the permit process for managing mammals, birds, and other wildlife can be found in the publication *Animal Damage Management—Rules and Regulations in Indiana* (FNR-FAQ-16-W). You can access it on the Internet:

<http://www.fnr.purdue.edu/PubsOnLine/Faq16w.PDF>.

**Endangered and Threatened Animals.** Examples are badgers, bobcats, and river otters. Contact an Indiana Department of Natural Resources (IDNR) district wildlife biologist or call the Wildlife Conflicts Hot Line (800-893-4116) before taking any action against endangered species. Visit IDNR's website ([www.state.in.us/dnr/naturepr/](http://www.state.in.us/dnr/naturepr/)) for a current list of endangered species, or call (317) 232-4080.

**Game Animals.** Examples are rabbits, gray and fox squirrels, and deer. An IDNR permit may be required before taking action, depending on the time of year.

**Furbearers:** Examples are raccoons, opossums, and foxes. A wild animal control permit is recommended but not required. However, the homeowner must notify their conservation officer within 72 hours after the killing or trapping and release of the problem animal.

**Nongame Species.** Examples are chipmunks, red squirrels, and groundhogs. No permit or reporting is required.

## Controlling Nuisance Wildlife: Patience, Trapping, and Repairs

There are no sure cures for wildlife damage management. But there are cost-effective techniques to reduce wildlife access to your home and yard.

Controlling nuisance wildlife is like dealing with insects on garden plants, roaches in the kitchen, or dandelions in the lawn. You have to learn what the animal likes and dislikes in order to determine how to make your home undesirable to it. Solving your nuisance wildlife problems is possible, but it takes dedicated effort.

**Remember the “wild” in wildlife.** Always approach wildlife with caution. Respect them for what they are: wild animals. They may be dangerous despite being cute and funny; many animals attack when confronted, cor-

nered, or confined. Keep in mind that backyard wildlife are wild creatures, and your feeding them does not make them tame—even if they climb onto your lap and eat from your hand. Except for feeding songbirds during the winter, you should never provide food for wild animals. Diseases and parasites that they may carry can be a health threat to humans and domestic animals that come into contact with the wild animals themselves or with their droppings. Never assume that an animal is healthy based on its appearance or behavior. Many wildlife diseases are contagious long before the animal shows signs of sickness.

On the other hand, just because a nocturnal animal is out during the day does not mean that it is carrying rabies, distemper, or some other dreaded disease. Predominately nocturnal animals may venture out during the day in urban settings because there are relatively few predators to bother them. Animals that seem disoriented or sick may be injured or suffering from malnutrition. Parents should teach their children *never* to chase, touch, or pick up any wild animal (dead or alive). Wildlife is best enjoyed at a distance.

**Do not assume that it is safe to go near an animal that doesn't seem to be afraid of you.**

Animals that have acclimated themselves to an urban environment may have overcome their instinctive fear of humans in the process.

- Avoid personal contact with wild animals.
- If you encounter a wild animal and try to shoo it away, do not panic if it does not back down.
- Never try to force a wild animal to leave if you are in close quarters with it. Allow the animal to leave on its own terms.



**Wild animals often lose their fear of people.**



For example, if a bat is loose in a room a simple solution is to open a window or an outside door, close off all other exits, and leave the room. Stuff towels under closed doors to prevent the bat from escaping into another part of the house. The bat will not exit during the daytime, so leave it alone and wait; it should find its way out after dusk. Later on, close the doors and windows and you will have solved your problem without confronting the animal. If this process is too involved or too time-consuming for you, your best recourse is to call a professional.

**Fall is the time to make repairs.** Dealing with an animal problem in the spring is the worst possible time in most cases. Females are nursing their young, so capturing them or otherwise preventing them from reaching their nest assures the young a slow death. Since the young are usually in areas that cannot be reached, e.g., inside a wall or above the damper door of a fireplace, their decomposing bodies may present a nauseating stench for days or weeks. Spring can be a good time to tackle a bat problem, while summer is a good time to deal with squirrels.

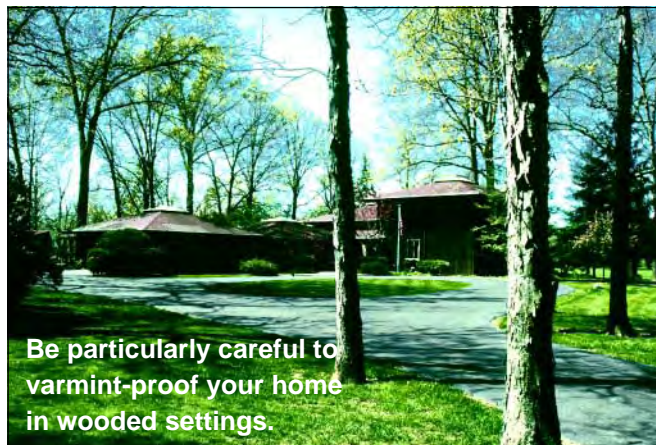
Early fall is the season to make repairs and pest-proof your home. Young animals will have joined the adults in looking for food, and as the weather gets colder they will fend for themselves in seeking shelter. Repairs should be made before cold weather drives wildlife inside, and come spring the adults will be unable to get inside your structures to nest.

## Long-Term Solutions

### Keeping Wildlife out of the Home

Make repairs as necessary to keep animals out of your home. Start with the chimney and work your way down to the basement, looking for openings. Never consider any opening too tiny to protect because animals such as small species of bats can slip through a crack no wider than 3/8 inch or a hole the diameter of a dime.

Step back from the house and look for situations that might allow animals access to your roof. Do you have ivy growing up the side of the house? Are there tree limbs touching or overhanging the roof? Look around the yard to see what can be done to eliminate hiding places and food sources for nuisance wildlife. This one-two punch of exclusion (home





repairs) and elimination (scouting the property and fixing situations conducive to animal access) should help prevent most wildlife problems. If you own a brick home, however, do not be surprised if you see a squirrel climbing up a corner of the house!

**Trees lead to the roof.** Create a climbing barrier for squirrels, raccoons, and opossums by placing an 18-inch-wide sheet metal collar as high up the trunk as possible. A collar will work only when you have a single tree near the house. If you have multiple trees, trim branches that overhang the roof to at least 10 feet from the roof and at least one foot below the roofline.

**Wires facilitate more than electricity.** Squirrels are acrobats capable of maneuvering quite well on lines that feed into your house. Contact your utility company for permission and advice on keeping them off your lines. One method is to split a two-foot section of a 2- or 3-inch-diameter plastic pipe in half lengthwise and glue the halves together to enclose the line. As squirrels try to cross over the pipe, it will spin and cause them to fall.

**Prevent easy access through vents and holes.** Improperly maintained dryer, foundation, and attic vents provide direct access to perfect living quarters—attics, eaves, soffits, basements, and crawl spaces—for pest animals. Check each vent to make sure it has an attached screen. You may want to secure a heavy-duty, 1/4-inch hardware cloth barrier to the inside of the attic vents. Seal any other openings larger than 1/4 inch with one of several materials available at your local hardware store.



Raccoons can damage vents as shown here by hanging from the eave and reaching underneath the soffit; and although an opening this size is useless to the raccoon, it provides bats easy access to the attic.

It is important not to seal animals inside the home. A trapped animal can do mega-damage as it struggles to find a way out in search of food and water. A couple of easy techniques can be used to determine whether an animal is using a hole that you have located. Look at the hole itself. Mammals' fur has an oily film, and as they enter and exit the hole, it rubs off on the wood. Holes that they use often look like someone has smeared oil on the wood. If it looks fresh, chances are that an animal is using the hole.

Another approach is to stuff a piece of plastic, a rag, or some paper into the hole. If it gets knocked out, the hole is being used. Watch the hole to identify the animal. If it's a squirrel or a bat, one-way exits may work well as a method of pest removal.

Lastly, sprinkling flour around the opening and watching for footprints is a simple way to tell if the hole is active.

### ***Chimneys make excellent nest sites.***

This is a top priority: Install an animal-proof chimney cap to exclude wildlife. To make sure the animal is gone, secure a single sheet of newspaper over the top of the chimney; if it is not disturbed after three or four days, the animal is gone. If you have a gas furnace or water heater, do not close off the top of your chimney. Instead, wrap paper or plastic sheeting around the chimney, between the peak of the roof and the top of the chimney, and observe the wrapping for disturbance. The only animals capable of entering and leaving a flue are raccoons, squirrels, and chimney swifts, all of which commonly live there.



***Check the roof for rotten or missing boards.*** Once an animal gains entry through the roof, it can access the entire house. Replace or patch all openings to prevent reentry, and install an appropriate one-way exit on the last hole as described herein. Leave the one-way exit hole open for a week before making permanent repairs.



**Exclude squirrels before sealing the hole.** You can make a one-way exit by using a 1/4-inch hardware cloth cone. Attach the larger end of the cone to your house, covering the entrance hole. The cone should taper so that the opening in the small end is 1 1/2 to 2 inches in diameter. The small end should point away from the entrance hole. Squirrels can easily squeeze out, but the cut and jagged end of the small end prevents them from getting back in.

**Exclude bats before sealing a hole.** Conduct a visual inspection of the eaves, starting thirty minutes before dusk and continuing till dark, to see where bats are emerging. Binoculars are helpful. Another method is to light the attic on a dark night, then go outside and look for light from within. Seal the openings only after you know that all bats have left the premises.



If no bats are observed, monitor the home for two or three more days. If no exit is found, check the attic to see if you still have resident bats. Bat exit holes are frequently hidden behind shutters, gutters, etc. Continue to seal holes cautiously since it is very unusual to actually see bats, even when you know they are there.

If bats are seen, check the attic area for holes (other than the exits) that are larger than 3/8 inch in diameter. Seal all but one or two of the major holes being used, forcing the bats to use fewer entrance/exit holes. Wait until mid to late August to complete the exclusion process; this prevents flightless young from being trapped inside the attic.

You might need to do some inside exclusion to prevent bats from getting into your living quarters. Screen all points used to gain entry into the house: inside vent openings, attic fans, cracks in closets that lead into the attic, and window air conditioners. Seal around ceiling fixtures, light switches, and light sockets. Replace missing light switch plates and electrical outlet covers; any of these could provide access into the walls.

In August, make a one-way cloth chute out of a 12- to 18-inch section of an old pant leg; staple one end of the cloth around the hole, allowing the pant leg to hang downward. The bats will be able to exit by pushing through the chute, but they will be unable to get back in.

For larger holes, try using a plastic drop cloth curtain. Attach fishing weights to the lower end to help hold it down, then place the cloth on the edge of the roof so that it hangs at least three feet below the opening. Bats coming out of the hole will hit the curtain and drop down. On their return trip, they will be unable to reenter the hole because of the curtain.

The height of many large or older buildings makes them very complex and dangerous to bat-proof. The job is best performed by professionals.

## Managing Wildlife Outdoors

*Sanitation* and *habitat modification* are effective outdoor approaches to maintaining wildlife numbers at manageable levels. The first approach to improving sanitation is to reduce the availability of food that attracts wildlife. Place all garbage in animal-proof containers pending pickup; make bird feeders as inaccessible as possible to other wildlife; be selective about placing possible food items on compost piles; and remove your pet's food bowl when it is done eating. Habitat modification is geared primarily toward the removal of outdoor hiding places.



## Block Access to Hiding Places

- Remove brush, lumber, and rock piles.
- Reduce mulch thickness around the home or substitute decorative rock.
- Store firewood a minimum of 12 inches off the ground and away from the house.
- Mow grass on a regular basis.
- Provide at least 8 inches of ground clearance beneath shrubs.
- Use hardware cloth to screen the apron around your deck or porch.

When sealing a deck apron, fasten the hardware cloth securely to the side of the deck and let it hang straight down to the ground. Allow enough hardware material on the ground to extend two feet horizontally away from (perpendicular to) the deck. Secure the hardware cloth to the ground with tent stakes or garden staples and backfill over the hardware cloth with pea gravel or crushed rock. This makes it very

difficult for wildlife to dig underneath the barrier.

Make sure that there are no animals beneath the deck before securing the barrier. Animals coming and going during the day are easily observed, but it is more difficult to determine whether a nocturnal animal uses the space that you are sealing. One way to determine if an animal is living underneath a deck or porch is to sprinkle flour lightly around the edge of the structure and watch for tracks. If an animal is in residence there, seal the entire porch or deck except for one opening. Place a cage trap at the mouth of the opening (see photos, p. 23) to capture the animal.



The hardware cloth extends behind the stone on the right but is hidden by mulch in this photograph.

## Remove Food Items

- Ask your supplier whether the plants that you are about to purchase are prone to wildlife damage. For example, rabbits eat tulips to the ground but seldom bother daffodils. So if rabbits are common in your area you might want to omit tulips from your selections and buy daffodils instead.
- Do not allow extra food to remain available after your outdoor pet has finished eating. Do not feed your outdoor pets at night.
- Bird feeders are a major source of residential wildlife problems because they provide a steady, dependable food supply. Birds scratch out seeds in search of their particular favorites, creating a food source below for other wildlife. It is better to fill multiple feeders, each with a single type of seed—sunflower, safflower, thistle—than to hang a single feeder with mixed seed. Birds learn to go to the feeder that offers their favorite and are happy to spend more time eating than scratching. Tube feeders



prevent a lot of spillage that is common with tray feeders. Feeders should be brought inside at night to keep other wildlife from eating the seed. An alternative is to place bird feeders on a freestanding post in an open area and wrap the post with 18-inch-wide flashing or PVC pipe at a height of 24 inches from the ground. This will prevent raccoons and squirrels from accessing the feeders. Roll flashing may be purchased at home centers, lumber yards, and hardware stores. Place bird feeders where they can be observed but as far away from buildings as possible. Care should also be taken to install bird feeders away from trees and overhanging branches.



Make sure compost piles are screened or enclosed. Eliminate exposed compost because it will continually attract wildlife and insects that feed on organic waste.





- Install a buried wire fence around gardens or valuable plants. When building a fence, make sure to use galvanized wire or hardware cloth with a small mesh; one-inch mesh is sufficient for excluding rabbits, while 1/4- to 1/2-inch mesh is necessary for smaller animals. Bury the bottom of the fence at least one foot into the ground or make a “skirt” similar to the screen barrier described for excluding animals from under a deck (p. 17); this helps deter animals from digging under the barrier.

- Lids must fit securely on garbage cans and birdseed containers. Use a bungee cord to secure lids if they don't fit tightly. If garbage cans must be stored outdoors, it is important to secure them in a rack to keep raccoons and opossums from tipping them over. Put your trash on the curb the morning of scheduled pickup, rather than the previous evening, to lessen the chance of marauding animals getting into it.
- To prevent bark stripping by squirrels, individual trees can be protected by placing an 18-inch sheet metal band around the trunks; the bottom of the band should be 3–4 feet above the ground (p. 13). The band can be attractively painted to look like tree bark if desired. The base of trees and woody shrubs can be protected from bark stripping by placing a 12- to 24-inch fence around the base of the plant (above). For trees, leave a space of one to two inches between the trunk and the metal fencing to allow space for growth.
- Consider replacing your white porch light with an amber light to keep from attracting insects that wildlife prey upon.
- Rats, mice, and chipmunks are favorite foods of most snakes and many mammals. Therefore it is important to reduce rodent populations both indoors and out to control wildlife.

### Remove Water

- Empty pet water bowls and bird baths at night.
- Repair leaky outdoor faucets, hydrants, and irrigation systems.

### Remove Wildlife Attractants

- Screen all window wells more than 2 inches deep.
- Discourage animals by filling their entrance and exit holes.

To many people, all of this seems like too much work. It is human nature to wait to act until a problem exists. It is much easier, however, to exclude or deter an animal before it becomes acclimated to the house, garden, or flower bed than to wait until it causes damage.

## Short-Term Solutions

These methods serve an important function, but they are merely short-term solutions unless incorporated with the more permanent measures previously discussed.

### Repellents

Repellents are most successful when used sparingly. Do not use a repellent to blanket all of your plants because it will make everything smell and taste the same; and if a hungry animal has no choice, it will resort to eating things that taste bad—which might be every plant that you have! Use repellents only on plants that you particularly want to protect; some may have to be sacrificed to save others. Check product labels for phytotoxicity statements and warnings.

### Cage Traps

Live trapping seems like the perfect option: the problem animal is relocated and given a second chance. However, the capture and release of any wildlife raises serious problems about the animal's welfare. Most urban wildlife are social creatures; like people, they interact with other members in their immediate environment. They know who lives in their area, what predators to watch out for, where to find food and water, and where they can rest during the day and during the night. Their environment becomes their community, their backyard, their home.



Squirrel captured in a cage trap

Under most circumstances, dumping a trapped animal among strangers in an unfamiliar and possibly hostile wildlife community is doing the animal no favor, nor is it fair to the owner on whose property the animal is dumped. Never assume that it is okay to abandon wildlife on the property of another; such a transfer is not acceptable without the owner's permission. We might imagine the perfect solution as the animal scampers into the woods, but the truth is that animals often perish in these circumstances. They may not be able to find food, water, or shelter, and they may be injured or killed in a territorial dispute with others of their own species. The spreading of disease is another consideration, and since animals have a tendency to move into and take over habitats left vacant by others, trapping may be only a short-term solution.

***What do I do with the captured animal?*** One approach is to trap the animal and make repairs to exclude it from the structure. Once the repairs are made, it might be possible to release the trapped animal back into your backyard.



But if you do so without repairing the entrance hole, the animal will merely become a repeat offender. In fact, released animals will become either “trap happy,” if they are rewarded with free food each time they are trapped, or “trap shy,” whereby they avoid the unpleasant experience of being captured. You must be vigilant since animals such as raccoons and squirrels will more than likely just chew another hole in the same structure.

A second possibility is to take the trapped animal to a veterinarian to have it euthanized. However, some veterinarians find it unethical to put down a healthy animal purely for convenience. A third option is to hire a professional service that specializes in animal damage control to capture and remove the animal.

Whatever option you choose, it is important to plan ahead regarding what to do with the animal once it is captured. If you intend to release the animal on someone else's property, ask their permission. If the animal is not going to be

released, make arrangements ahead of time to have a professional wildlife control service or a veterinarian euthanize it.

**What kind of live traps should I use?** A trap for raccoons and groundhogs should be 12 x 12 x 36 inches. A medium-sized trap measuring 8 x 8 x 12 inches is adequate for catching opossums, skunks, fox and gray squirrels, and rabbits. For smaller animals such as red squirrels and chipmunks, use a 4- x 4- x 14-inch wire trap or a 12-inch box trap. Traps can be purchased from farm supply stores and garden centers or through trapper catalogs.

Another option may be to rent a trap from the humane society, a city or county animal control officer, or a pest control company. Some communities prohibit the use of specific types of traps, and it is your responsibility to know and understand the regulations in your area.

**What bait should I use?** Some traps come with a guide on appropriate baits for various species, but in general you cannot go wrong with half an apple or a small amount of peanut butter mixed with rolled oats.



**What do I need to do to get the trap ready?** Cover the bottom and sides of cage traps with a heavy blanket, plywood, vinyl strips, or corrugated cardboard to prevent the animal from viewing your approach; darkness created by covering the cage has a soothing effect on animals. If you plan to release the animal, attach a string or wire to the door so that you do not have to hold it open with your hands.

**Are there special techniques for trapping wildlife?** Squirrels do not feed in the attic, so bait trapping must be done on the roof.



If you see animals feeding or notice their tracks around your bird feeder, empty the feeder and set a cage trap beneath it. Again, peanut butter and pieces of apple are good baits.

The first step in cage trapping burrowing animals that live under the deck or house is to block all exits except the main one. Barricade the sides of the path leading from the hole to the trap, and place sand or soil over the front of the trap to conceal the steel mesh floor. As the animal exits the hole it will be funneled into the trap.



**How often do I need to check the trap?** It is a state law in Indiana that live traps must be checked daily; trapped animals may be stressed from lack of food and water or by exposure to extreme heat or cold. In extreme weather conditions and for some species, check traps two or three times a day.

**Do I need to wear anything special?** Wear thick leather gloves and avoid contact with the animal's saliva and other body fluids.

**What if I'm bitten?** If you are bitten, make a reasonable attempt to retain the animal, dead or alive, so that public health officials can test it for specific diseases. Health officials can determine if an animal is a carrier of the rabies virus by testing its brain tissue: a negative result is the *only* criterion for determining that rabies shots are unwarranted. If you are bitten by a bat, a raccoon, or a skunk and the animal is not available for testing, your physician will likely recommend that you take the rabies shots as a precaution.

## Snap Traps

Snap traps are effective only against small animals such as chipmunks, squirrels, and voles. When using a live snap trap, it can be helpful to “feed” the animals first without setting the trap. Use the same bait that you intend to place in the trap when it is set. Again, apples and peanut butter are the preferred baits. Once the animal you want to trap has eaten the food, it is time to set the snap. Tie a piece of apple with a string to the trigger or mix oats with peanut butter and set the trap perpendicular to the pathway used by the animal. When snap trapping outdoors, be sure to place something over the trap; a wooden box with a silver-dollar-sized entrance hole or a board leaned over the trap and against the wall will prevent birds from being killed and children injured.



## Firearms

Shooting a firearm within city limits is generally illegal. However, many cities allow shooting of pellet guns which are effective on small animals such as squirrels, rabbits, and chipmunks. Check local laws before using such devices.

Shooting nuisance wildlife is almost always an option on lands outside city limits. Safe and legal shooting practices are a priority when using this technique.



## Solutions that Should Be Avoided

- Never use home remedies such as pesticides, antifreeze, and naphthalene to poison wildlife. First of all, *it's against the law*; and secondly, the hazards that these products pose to people and pets do not justify the risks. If these products were safe and effective for controlling wildlife, they would be marketed for that use. Any chemical can cause the injury or death of a nontarget animal, and it will not die on-the-spot. It may go to some dark, protected place—maybe your attic or wall void—before it dies. Soon the decaying animal will produce a very nauseating odor that will attract blowflies; the flies will lay their eggs on the carcass, and the hatching maggots will feed on it. Use products that have been tested, approved, and offered for sale for wildlife control. Follow label directions precisely.
- With repellents being the only exception, there are no pesticides labeled for use by homeowners to kill the wildlife species discussed in this publication. A word of warning: All states have regulatory personnel who investigate the misuse of pesticides. The use of a pesticide against an animal not listed on the label is a violation of state and federal laws and can lead to jail time and civil fines.

### The Illegal Use of Chemicals



## When You Need Help

The Wildlife Conflict Information Hot Line is a toll-free service sponsored by USDA-APHIS-WS and the Indiana Department of Natural Resources. It is staffed by a USDA technician Monday through Friday (excluding holidays) between the hours of 8 a.m. and 5 p.m. The toll-free number is (800) 893-4116. Lafayette area residents may call (765) 496-3968.

A technician will speak to you personally, address your questions, and help you identify the problem animal. She can provide additional control options for the animals discussed in this publication and also for those excluded. The technician can give you the names and phone numbers of state and federal officials who will need to be contacted as part of your legal responsibility in dealing with wildlife and may refer you to businesses and rehabilitators that handle wildlife problems. The Wildlife Conflicts Information Hot Line website is [www.entm.purdue.edu/wildlife/wild.htm](http://www.entm.purdue.edu/wildlife/wild.htm).

Another excellent reference used by wildlife experts is a book called *Prevention and Control of Wildlife Damage*. Contact your county extension educator or your local library to access this very useful publication. Information on the printed handbook and the CD-ROM version of the handbook can be accessed at <http://wildlifedamage.unl.edu/handbook/handbook/>. Check the Internet for the Center for Wildlife Damage Management at the following website: <http://wildlifedamage.unl.edu/>. Call your county extension educator toll-free at (888) 398-4636.

## Conclusion

Wildlife is a valuable and beloved Hoosier resource. As the human population increases and as people shift from urban to rural areas, more situations will occur where the interests of humans and wildlife conflict. Although wildlife species receive some level of protection through laws and regulations, there exist some biologically sound methods of resolving existing wildlife problems. Conflict prevention is more desirable and efficient than taking remedial action once a problem arises. Our recreational, landscaping, and architectural





choices greatly influence whether wildlife continue to be appreciated or become pests. We can never totally eliminate conflict with wildlife; however, by using common sense and making prudent, informed choices, we can continue to enjoy our wildlife neighbors.

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