

University of Nebraska-Lincoln Extension, Institute of Agriculture and Natural Resources

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Dealing With Skunks

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This NebGuide describes native skunks found in Nebraska, how to remove them and prevent or manage the damage they can cause.

Skunk Biology

Two species of skunks reside in Nebraska, the eastern striped skunk (*Mephitis mephitis*) and the eastern spotted skunk (*Spilogale putorius*) (*Figure 1*). The spotted skunk sometimes is called a polecat or civet cat because of its similarity to the Old World civet, but it is not related to either true civets or cats.

The striped skunk is about the size of a domestic cat, weighing an average of 6-8 pounds, and up to 15 pounds. The spotted skunk is much smaller, weighing an average of 1-4 pounds. Striped skunks can climb obstacles, but are unable to climb trees like spotted skunks. Since spotted skunks are protected and rarely seen in Nebraska, this Nebguide focuses on the striped skunk. Contact Nebraska Game and Parks Commission (NGPC) for information on options for controlling problem spotted skunks.

Striped skunks are found in agricultural areas, woodlands, and urban areas throughout Nebraska. They prefer to den in sheltered areas under stumps, fallen trees, lumber piles, decks, and porches. Entrances typically are 3-5 inches in diameter with little to no grass growing around the opening (Figure 2). Den sites likely will not smell "skunky." Skunks do not emit odor unless provoked to spray. Dens emitting a musky odor likely are occupied by foxes.

Skunks are nocturnal, active from dusk to dawn. They feed mainly on insects and their ground-dwelling larvae, such as crickets, grasshoppers, beetles, cutworms, and even ground-nesting wasps such as yellow jackets. While humans appreciate the pesticide-free insect control, they are frequently annoyed by the small, shallow conical holes that skunks dig to unearth insects. Skunks also eat animals often deemed pests, such as mice, rats, shrews, moles, ground squirrels, and other small mammals.



Figure 1. Eastern striped skunk (Mephitis mephitis) and eastern spotted skunk (Spilogale putorius).



Figure 2. Hole entrance with twigs in front to test for animal use.

Skunks do not hibernate, but can become dormant or semiactive, remaining in their dens for days and even weeks during frigid temperatures. During this time, they must rely on stored body fat. Several females often den together, but males usually are solitary.

In Nebraska, mating occurs mid-February to mid-March. Males travel up to 5 miles per night in search of females. Males are not always successful in their quest, as they frequently are struck by vehicles during this time. Even if a female is located, she may refuse his advances by spraying him. Litters averaging four to eight kits are born about 63 days after mating. Young are born blind and hairless but with their striped pattern. Skunk kits can spray in their second week of age, yet their eyes do not open until around 3 weeks. Females raise the young alone and take them on hunting trips when they are mature enough to accompany her. Skunks are quite nearsighted, especially when young. Kits often follow their mother in a line with noses trailing closely to tails. Juveniles may separate from their mother in fall.

Skunks that do not cause problems or are not valued for their fur should be left alone because of their important role in Nebraska's ecosystem.

Skunk Odor, Health Risks, and Damage

Odor

Skunks are famous for their noxious spray that is produced by two internal glands located on each side of the anus. The glands harbor the thick, volatile, oily liquid that obtains its pungency from sulfur-based thiols. The odor is noticeable up to a mile away. Fortunately, skunks do not like the odor any more than humans. Healthy skunks spray only when they feel threatened. If not caught by surprise, a skunk often will hold its tail erect like a flag while

stamping its front feet, turn sideways, and often hiss and hop, as a warning to potential victims. When skunks exhibit any of these behaviors, take the warning seriously and slowly back away. A skunk can discharge a stream of liquid or mist accurately up to 10 feet and with less accuracy up to 20 feet from one or both glands, while aiming for the offender's eyes. Skunks can spray several times within a short period. The fluid will irritate eyes and can cause temporary blindness for 15 minutes or longer.

If you live in an area with a high skunk population, a few simple precautions will dramatically reduce the chances of being sprayed. First, observe the recommendations on preventing skunks from living on your property listed in the Exclusion section on Page 3. Second, when it is dark, let foraging skunks know you are coming by turning on exterior lights and making noise, such as whistling.

Odor that persists for several days, increases in intensity, or is especially acrid suggests that skunks may be present nearby. Look for half-moon depressions under sheds, porches, decks, and crawl spaces. Active burrows will be grass-free and 3-5 inches in diameter. Carefully check window wells for trapped skunks. Finally, keep in mind that skunks occasionally die around structures. In those situations, the odor can become quite severe as the carcass decomposes. Relief will be obtained only by removing the carcass and treating the contaminated soil around it. The NebGuide *Removing Skunk Odor* (G2100) contains instructions on eliminating skunk odor (http://www.ianrpubs.unl.edu/sendIt/g2100.pdf).

Humans have created several myths related to skunk spray. Some are comical but others are potentially dangerous. The following points contradict the more common myths: Skunks can spray whether or not their feet are on the ground; skunks do not disperse the spray by shaking their tails; and a covered trap does not prevent skunks from spraying—it only reduces the likelihood.

Rabies

Although rabies can infect any warm-blooded creature, skunks are particularly susceptible to the disease. In 2012, skunks comprised almost 60 percent of all positive rabies results of animals submitted for testing in Nebraska. Infected skunks transmit rabies to other animals or humans through bites or direct contact with the skunk's saliva into a fresh wound, eyes, nasal membranes, or mouth. Skunk spray cannot cause rabies exposure. When the number of skunks is high, the chances for rabies to spread are greater, and rabies also is more likely to spread to other animals, such as pets, livestock, and humans. Despite the potential risk, it is not appropriate to kill skunks indiscriminately as typically only a small percentage of skunks will be infected.

Clinical signs of rabies include lethargy, aggression, wandering, listlessness, salivation, and tremors. It is impossible, however, to diagnose rabies using visual signs as these behaviors also are clinical signs of other diseases. In addition, an infected animal can look perfectly normal and healthy. Clinical signs of the infection occur quite late in the rabies cycle. Skunks exposed to the rabies virus may not show signs for weeks or even months. Stresses such as fighting, sexual maturity, and environmental change may trigger the disease. This delayed rabies potential underlies the importance of not keeping wild skunks, even young ones, as pets. Skunks observed during the daylight are considered by public health officials to be acting abnormally and are suspected of carrying rabies.

The best way to avoid rabies exposure is to avoid skunks. Parents should warn children to never approach or pet skunks or any other wild animals. The motto should be, "If you care, leave

them there." If an animal appears injured, contact your local police department, conservation officer, or animal control office. Vaccinate dogs, cats, and livestock against rabies. People in high-risk occupations, such as field biologists, animal controllers, and veterinarians, should consider pre-exposure vaccinations.

In case of skunk bite, wash the wound thoroughly with soap and water. Seek medical attention as soon as possible. Potential exposure to rabies should be treated urgently but it is not an emergency. If possible, capture the animal. Trapping is not very effective in capturing sick skunks so shooting may be necessary. Do not damage the animal's brain as health officials need the brain tissue to test for the virus. Avoid direct contact with the carcass and its body fluids by wearing latex or vinyl gloves. Use a shovel and place the carcass in two plastic bags and seal them to prevent leaks. Contact your local veterinarian or animal control official. If there will be a significant time delay in shipping the carcass, keep it cool, 32-45°F, in a disposable cooler. Do not freeze the carcass. Disinfect equipment with a bleach solution diluted at a rate of 1 part bleach to 9 parts water or by spraying with Lysol®.

Rabies Consultation and Testing

In the event of an animal exposure, your veterinarian can assist you in evaluating the potential risk to your pet or livestock. All pets must be vaccinated against rabies and livestock should be vaccinated where threats are high. Regarding human exposures, consult your physician or the Nebraska Department of Health and Human Services 24-hour hotline at 402-471-2937. Skunks involved in an exposure need to be packaged and shipped for testing by qualified personnel, such as a veterinarian. Before shipping specimens, the preparer should contact the Nebraska Department of Health and Human Services to confirm the need for testing. Submission guidelines, including costs, can be found at http://www.vet.ksu.edu/ depts/dmp/service/rabies/index.htm. Additional information on rabies can be obtained from the Nebraska Department of Health and Human Services at http://dhhs.ne.gov/publichealth/ Pages/epi epirabie.aspx.

Nebraska Laws Regarding Skunks and Their Control

Nebraska law prohibits the possession of live skunks, primarily to reduce the risk of rabies. Striped skunks may be trapped or hunted year-round with a Nebraska fur harvest permit. Striped skunks that cause damage to agriculture or livestock may be controlled without a permit on land owned or controlled by that landowner. As with all furbearers in Nebraska, striped skunks may not be moved more than 100 yards from point of capture due to disease issues. For answers regarding all other types of problems with striped skunks, contact the offices listed below.

The spotted skunk is considered a "species in need of conservation" in Nebraska with no open season. In those rare circumstances where spotted skunks are causing problems, contact a conservation officer (402-471-5531), or NGPC wildlife manager to discuss your options (402-471-0641), or visit http://outdoornebraska.ne.gov/default.asp for assistance.

Damage

In addition to insects, skunks may prey upon poultry, eggs, garden vegetables, fruit, nesting waterfowl, and game birds and their eggs. They also can damage beehives by eating adult and larval bees. Aside from odor, most complaints regarding skunks



Figure 3. Skunk damage to a lawn exhibits a collection of cone-shaped holes dug at the surface of the ground.

stem from their digging cone-shaped holes in lawns for grubs and other insect larvae (*Figure 3*). Damage to turf caused by raccoons typically is much more extensive with large chunks of sod being rolled and torn.

Prevention and Control of Skunk Damage

Habitat Modification

Discourage the attractiveness of your property to skunks by removing brush piles, stacked lumber, wood piles, and similar sources of shelter. Reduce the availability of food by placing garbage and compost inside secure bins or trash cans. Feed and water pets indoors or provide them just enough for one feeding. Protect lawns through appropriate insect control. Control insects before damage begins as it rarely is effective at stopping skunks from digging. Consult your local extension office for advice on proper insect control methods.

Exclusion

Skunks are easily excluded from porches, decks, sheds, landscaped areas, gardens, poultry sheds, and other places by installing a simple fence. Obtain a 3-foot-wide role of ½-inch galvanized hardware cloth. Bury one side at least 2-3 inches below the ground surface, extending it 12 inches outward in an "L" shape to discourage skunks from digging underneath (*Figure 4*). Before digging, contact Diggers Hotline of Nebraska at 800-331-5666. Use the remaining 24 inches of your fence aboveground or secure

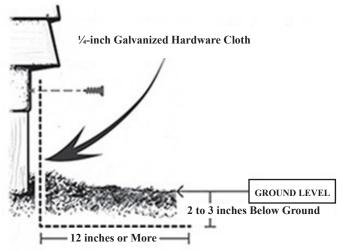


Figure 4. Exclusion screen to prevent skunks from entering a crawl space. Image by Mike Heller.

it to the base of a wall. Since spotted skunks are good climbers, use a 4-foot-wide mesh and create a 6-inch-wide overhang to stop them from climbing.

Repellents and Frightening Devices

Mothballs (naphthalene or paradichlorobenzene), ammonia, lights, ultrasound, radios, coyote urine, and other repellents have not been proven effective in repelling skunks on a consistent basis. Use of mothballs or ammonia in the landscape is dangerous and in violation of federal regulations.

Trapping

Trapping is effective for controlling skunks. In Nebraska, fur harvest permits allow trappers to take striped skunks within season and to use or sell their fur. Steel foothold, body-grip, or snare traps are effective in catching skunks, but are more regulated and require experience for proper use. Before using such traps, check with the NGPC regarding current trapping regulations. These traps also increase the risk of a skunk spraying. Therefore, place the traps away from and downwind of buildings.

Skunks can be caught easily in cage traps. Single-door cage traps should be at least 7 inches by 7 inches by 24 inches in size. Bait traps with sardines, fish-flavored cat food, chicken parts, or bacon. Milder baits, such as peanut butter, mayonnaise, or apples, work well and are less attractive to cats. Use an old blanket to cover the bait end of the trap, including walls and end, for at least half the trap's length (*Figure 5*). The cover serves two purposes. First, it provides the skunk with shelter to get out of the sun, wind, rain, or snow. It also allows you to approach the trapped skunk without being seen. Ensure that the blanket will not interfere with the trap's trigger mechanism. Once a skunk is captured, approach the trap slowly and quietly. Gently cover the remaining portion of the trap with another blanket. When kept in the dark, skunks are less fearful and less likely to spray. Avoid jostling the trap as the skunk may become frightened and spray. Although more expensive than cage traps, some people prefer box traps with solid walls, which are designed specifically for skunks. Spotted skunks are more easily provoked to spray than are striped skunks.

When removing skunks living under a porch, deck, or shed, don't secure the structure before all the skunks have been removed. Temporarily seal openings with newspaper or loose dirt to determine if the hole is still in use. Never secure a hole unless you are certain that it is no longer active. If the skunks are still there, they will simply clear the opening. Skunks may not leave their den every evening and young skunks may use a den from April through August. Be sure all animals are out before sealing the entrance. Mothers typically return for their young. To reduce the risk of sealing skunks inside a structure,

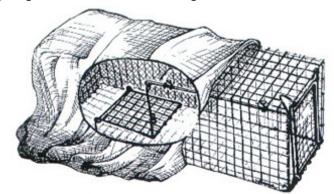


Figure 5. Cage trap with blanket over 50 percent of the trap.

only perform exclusion work if the opening remains undisturbed for five consecutive days of good weather.

When all skunks have been excluded or removed, seal all entrances securely. Use ¼-inch wire mesh or other durable material to close entrances. Follow the instructions for exclusion to prevent skunks from reinhabiting decks, sheds, and crawl spaces.

Shooting

Since skunks are legally designated as furbearing animals in Nebraska, they may be hunted and trapped year-round with a fur harvest permit. A permit is not required by producers hunting and trapping skunks to stop depredation. Always shoot safely and in accordance with state and local regulations regarding the discharge of firearms. Skunks that are shot typically release their scent so shooting should be conducted only in emergency situations or away from buildings and areas of human activity. See details below on shooting for euthanasia.

Toxicants

Gas cartridges that have carbon and sodium nitrate as active ingredients are General Use Pesticides used to fumigate skunk dens. Do not use gas cartridges on dens near or adjacent to human structures. Light the fuse and hold the cartridge until it is lit and producing smoke. Then place the cartridge far enough into the burrow to avoid being smothered as you fill the hole. Treat dens after rain to reduce risk of fire and improve the den's ability to hold toxic fumes.

Disposition

Skunks that cannot be released within 100 yards of the capture site should be euthanized. They should not be released in another location because of the risk of transmitting rabies. Never release a skunk that shows signs of aggression, tremors, lethargy, or salivation. Humanely dispose of a trapped skunk by placing the trap inside an airtight container, such as a trash can that has a loose-fitting lid. Use a cylinder of carbon dioxide gas attached to a hose to fill the container with carbon dioxide. Since carbon dioxide is heavier than air, it displaces the oxygen through the loose-fitting lid. Skunks are very tolerant of carbon dioxide gas. Wait 20 minutes or longer for the skunk to succumb after the container is filled with gas. Monitor a skunk's breathing for at least 1 minute before determining it is dead. Look carefully as breathing can be light and intermittent. Err on the side of caution or be prepared for the likelihood of a skunk "waking up" at an inopportune time.

Shooting is another method of euthanasia. Unfortunately, there is no sure-fire way to shoot a skunk and guarantee an odor-free experience. Since skunks often release their odor when shot, avoid shooting them in areas where their odor may be a problem. To lessen the chance of a release of scent, use a low-report .22 caliber round such as a CB short or air rifle. If rabies testing is not needed, aim for the brain, slightly above and behind the ear. Otherwise, aim for the heart-lung area. For detailed information on various euthanasia techniques, visit http://icwdm.org/wildlife/euthanasia/default.aspx.

Dispose of carcasses carefully as they can still host contagious diseases as well as ticks and fleas. Handle carcasses with thick leather gloves to reduce the risk of being scratched and exposed to body fluids. For additional protection, wear latex or vinyl gloves inside leather gloves. Carcasses may be disposed of at a registered solid waste disposal facility or by incineration. It is not legal to dispose of a skunk by burial outside a registered facility.

Special Control Problems

Occasionally, skunks become trapped in window wells or other depressions. Carefully lower one end of a cleated board (at least 6 inches wide) to the bottom to allow the animal to escape. Cleats should be about 6 inches apart. Avoid slopes steeper than 45° as they may be too steep for a skunk to climb. If the skunk does not climb out that night, it may be too weak or the board angle too steep. If trapping is not possible, professional assistance may be required. Cover windows and stairwells to prevent future entrapments.

Skunks found inside buildings should be allowed to leave on their own by opening doors to facilitate their escape. Use exclusion methods to keep skunks out of spaces below buildings and around homes and farms. Sturdy wire mesh (1/4-inch hardware cloth or similar materials) can be used to screen vents in houses and other structures. Tightly seal holes in foundations or under porches to prevent skunks from entering.

Assistance with Problem Skunks

Contact private wildlife control operators listed in the phone book or at the NGPC or specialists at the USDA-Wildlife Services office (402-434-2340) for assistance in dealing with skunks that are causing damage or threatening human health. USDA-Wildlife Services may be available for hands-on assistance in certain cooperating counties in Nebraska.

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