#### KASTATE Kansas State University

# Skunks

## Urban Wildlife Damage Control

Two species of skunks are found in Kansas. The eastern spotted skunk (Spilogale putorius) has white splotches on its back and sides. It is now rarely found in Kansas and is fully protected as a threatened species under state regulations. Also known as the "civit cat," the adult spotted skunk is 14 to 22 inches long and weighs from <sup>3</sup>/<sub>4</sub> to 2<sup>3</sup>/<sub>4</sub> pounds.

The striped skunk (*Mephitis mephitis*) is more common. It has shiny black fur with two white stripes down its back. Striped skunks have varying amounts of white on the head, back and tail. Adults are from 20 to 30 inches long, including the tail, and usually weigh between  $3\frac{1}{2}$  and 10 pounds.

Striped skunks' musk has a characteristic pungent odor. These shy, secretive animals discharge their scent only when disturbed or harassed. They are the least popular of all wild animals, yet they are beneficial because nearly half of their diet is insects, with the remaining consisting of 20 percent fruit and 20 percent mice. Diets vary depending on a skunk's location and the time of year. Skunks eat the eggs of ground-nesting birds, biting off one end, licking out the contents and leaving the shells more or less together in the nest. Spotted skunks do not crush the egg shells as much as striped skunks do.

## **Biology and Habits**

Skunks are nocturnal and, while they do not hibernate, they may be inactive for extended periods during winter.

Skunks live in rocky crevasses or in underground dens that may be renovated woodchuck or badger burrows. In urban and suburban areas, skunks take refuge beneath buildings and in crawl spaces under porches and houses.

Skunks mate in February. After about 9 weeks, 4 to 6 young are born, each weighing about ½ ounce. Their eyes open in 17 to 21 days, and they are weaned at about 2 months. Young skunks stay with the female until autumn. Then family ties begin to break. During May and June, young skunks may be left in the den unattended. Avoid sealing buildings or foundations at this time to avoid starving them.

## Laws and Regulations

In Kansas, skunks are classified as furbearers, providing them with legal protection except during the hunting and trapping season or when causing damage. KSA 32-1002 ". . . does not prevent owners or legal occupants of land from killing animals when found in or near buildings on their premises, or when found destroying property subject to the following:

(A) the provisions of all federal laws and regulations governing protected species and the provisions of Kansas nongame and endangered species conservation act are met;

(B) it is unlawful to use or possess with intent to use, an animal so killed unless authorized by rules and regulations of the secretary; and

(C) such owners or legal occupants shall make reasonable efforts to alleviate their problems with any such animals before killing them."

Eastern spotted skunks are a threatened species in Kansas and should not be destroyed. Anyone capturing a spotted skunk must contact the Kansas Department of Wildlife and Parks.

## Urban Skunk Problems

Skunks cause many problems in urban areas. They damage lawns by

## **Urban Wildlife Damage Control**

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- $\Box$  Birds, L-856
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digging for grubs; den under patio slabs, steps, crawl spaces, outbuildings and in basements; release highly objectionable musk; and carry rabies.

In Kansas, skunks are the primary wildlife carrier of this disease. They may also be infected with pneumonia, distemper, leptospirosis, listeriosis, tularemia and unknown viral diseases, or carry parasites such as fleas, lice, mites, ticks, roundworms, tapeworms and flatworms.

Skunks occasionally bother beehives. To keep skunks from climbing to the hives, put hives on stands several feet off the ground and tack sheet metal to the legs.

## Skunk Problem Management

Despite nature's checks and balances, skunk populations sometimes rise. Mass skunk control is difficult in an urban environment. Because poisoning may kill pets and wildlife, there are no poison baits registered for skunk control in Kansas. Homeowners must take preventive measures to keep skunks from becoming abundant in urban areas.



Figure 1. Skunks are easily captured alive in cage traps. Cover traps with canvas or burlap before they are set.

Clean up and destroy dens and remove food sources by taking away exposed pet food, putting strewn garbage in sealed containers and carrying off wood piles harboring mice and rats.

Block den openings in foundations and under steps using concrete with sheet metal or wire netting bent outward 12 inches at the bottom in an "L" shape. This prevents skunks from burrowing. Destroy other den sites such as rock piles, junk piles, old cars and open buried culverts or pipes.

The lawn should be cared for properly to control grubs that attract skunks.

Although skunks tend to be more abundant in urban areas where they find more food and denning sites, skunks may also take up residence in well-kept neighborhoods. Skunks migrate from outside the area where food supplies have decreased following ditches, creeks, rivers and drainage lines.

Where skunks are a problem, there are several possible solutions. Erect a 2-inch mesh wire fence, 3 feet high and extending 1 foot below the ground with 1 foot bent outward at a 90degree angle. Striped skunks normally do not climb. They are slow-moving animals that prefer to walk following fences and building walls. Install a one-way door. Seal all openings except one. Then hang a section of  $\frac{1}{2}$ -inch mesh hardware cloth by hinges over the opening in the foundation. This one-way door should be larger than the opening and Lshaped to discourage burrowing. Bend the hardware cloth outward at the bottom at a 90-degree angle. The skunk will be able to get out of the den but not re-enter.

### Other Problems and Solutions

In cases where skunks dig a new opening near the patched one, thoroughly soak the den and surrounding area with slow-running water. Skunks seem to prefer den sites with good drainage. Since skunks are nocturnal, illuminating the den or other frequented area may also discourage them.

If a skunk becomes trapped in a window well, old well, basement or some other pit, install a board with cleats nailed at 6-inch intervals so the skunk can climb out and wander off into the night. Once the skunk has left, seal the opening.

#### Trapping

Live-trapping with cage traps baited with fish-based, meat-type cat food, canned fish, chicken parts or sardines is the preferred method for removing nuisance skunks (*Figure 1*). The trap should be about 12 by 12 by 36 inches and the bait placed in a small, disposable cup at the back, beyond the tripping device. In urban areas it is not unusual to catch house cats instead of skunks. Mayonnaise, peanut butter, dried fruit, honey or molasses on bread attract skunks and not house cats.

Cover traps with burlap cloth, canvas or a shell of plywood. Coverings keep the trapped skunk in a darkened area so it will remain calm and is less likely to release its musk. A few commercially available cage-type live traps are made of sheet metal instead of wire.

Traps should be set in areas where skunks are expected to be, such as near den openings, along sides of buildings, near trails or fence openings. Traps can be set in the open or concealed with boards or grass. Always set traps in shady areas on a flat, smooth surface, using drift fences to guide skunks into the traps. Kansas law requires that traps be inspected at least once a day.

If a skunk sprays musk while in a trap, the trap can be washed at a car wash and then aired out after the skunk has been removed. With a little courage and practice, you can transport skunks in live traps without provoking the skunk to spray. Slowly approach the trapped skunk and, if the trap is not already covered, place a tarp over it. Carefully pick up the covered trap and place it gently in the back of a pickup truck. Striped skunks seldom release scent when these precautions are taken, but spotted skunks are more difficult to handle.

It is not a good idea to release a trapped striped skunk. When a skunk is infected with rabies, the disease may not be apparent and symptoms may not appear for weeks or months. A healthy-looking skunk may actually be diseased and may infect other animals it contacts. In this case you will not be helping other animals by transporting the skunk to a "new home."

To humanely dispose of a trapped skunk, place a tarp or plastic sheet over the trap, seal the edges with soil and pipe in carbon dioxide gas from a pressurized cylinder or use dry ice which gives off CO2. Another American Veterinary Medical Association approved method of euthanasia is shooting. However, many times skunks will spray when shot. If the animal is to be tested for rabies do not shoot it in the head as brain tissue is needed for testing.

#### **Odor Control**

Skunk odor is difficult to neutralize and persists for a long time. Household products that help remove skunk odor include ammonia, bleach, vinegar, washing soda, laundry soaps, smoke from a citronella candle and canned tomatoes or tomato juice. WARNING: do not mix ammonia and chlorine bleach. This combination may form a gas (chloramine) that is toxic if inhaled, even in small amounts.

Some old-time remedies include burying fouled garments in the soil for a few days and then letting them air out; subjecting clothing to smoke from burning leaves, especially cedar or juniper foliage; and exposing clothing to car exhaust. **But remember, it is DANGEROUS to run a car in a closed garage.**  Another deodorizing solution that you can mix from readily available ingredients is as follows:

1 quart 3% hydrogen peroxide

- 1/4 cup baking soda
- 1 teaspoon liquid soap

Mix ingredients well and thoroughly saturate the areas the skunk has sprayed. Use immediately and do not store the mixture or keep it in a glass container. It expands and will break sealed containers. Be aware these solutions may cause color changes in certain materials. In treating pets, keep solutions away from their eyes.

Commercial deodorants such as Neutroleum Alpha are masking agents that are effective for reducing skunk odors. Neutroleum Alpha is available from some pest-control operators or may be obtained by writing the manufacturer and requesting a list of local sources. When using chemicals, always read and follow label instructions.

#### Rabies

Skunks exhibiting any sort of addled, tame or aggressive behavior, especially during the day, are definite rabies suspects. Children, in particular, should be warned against handling "friendly" skunks. Animals suspected of having rabies should be destroyed immediately-try not to destroy the brain. Have a veterinarian remove the head and submit it, packed in ice in a sealed leakproof container, to the Veterinary Diagnostic Laboratory, Kansas State University, Manhattan, Kansas 66506. A test will be performed, and the veterinarian will be contacted immediately by phone if the animal is positive for rabies.

#### **Human Rabies Prevention**

Rabies in humans can be prevented either by eliminating exposures to rabid animals or by providing exposed persons with prompt local treatment of wounds.

#### **Domestic Animals**

Local governments should initiate and maintain effective programs to

remove strays and unwanted animals and to ensure vaccination of all dogs and cats. Such procedures in the United States have reduced laboratory-confirmed rabies cases in dogs from 6,949 in 1947 to 114 in 2000. Since more rabies cases are reported annually involving cats (249 in 2000) than dogs, cat vaccinations should be required.

#### **Rabies in Wildlife**

It is difficult to control rabies among foxes, skunks, raccoons and other terrestrial animals. Selective reduction of these populations may be useful depending on the circumstances of the rabies outbreak.

#### Wild or Exotic Animals

Because of the risk of rabies among wild animals-especially raccoons skunks and foxes-the American Veterinary Medical Association, the National Association of State Public Health Veterinarians and the Council of State and Territorial Epidemiologists strongly recommend enacting state laws to prohibit the importation, distribution, relocation or keeping of wild animals and wild animals crossbred to domestic dogs and cats as pets. Because it is not known how long it takes for wild or exotic animals, including ferrets, to shed the rabies virus, confinement and observation of animals that bite humans is not appropriate.

#### **Control Methods for Wild Animals**

The public should be warned not to handle wild animals. Wild carnivorous mammals and bats and the offspring of wild animals crossbred with domestic dogs and cats that bite people should be killed and their brains submitted to the laboratory for rabies examination. A person bitten by a wild animal should immediately report the incident to a physician who can evaluate the need for antirabies treatment.

#### **Terrestrial Mammals**

Continuous and persistent govern-

ment-funded programs for trapping or poisoning wildlife are not cost effective in reducing wildlife rabies on a statewide basis. But limited control by removing selected high-risk species of wild animals in high-contact areas such as picnic grounds, camps and suburban areas, may be indicated.	Consult the state wildlife agency early to manage elimination programs in coordination with the state health department. For more information about rabies, request the publication <i>Rabies</i> , MF-962, from your local K-State Research and Extension office. Report any suspicion of rabies immediately to a veterinarian, physi- cian or local health official.	For more information, contact K-State Research and Extension Wildlife, Room 131 Call Hall, Kansas State University, Manhattan, KS 66506-1600, (785) 532-5734.
	Charles Lee Wildlife Specialist	

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