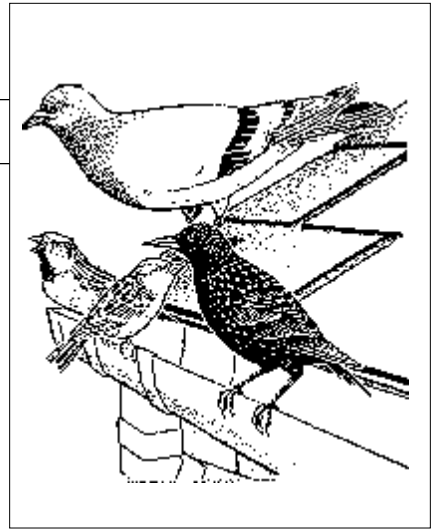


Birds

Urban Wildlife Damage Control



Three kinds of birds—English sparrows, starlings and pigeons—cause most conflicts between birds and people in urban areas of the United States. All have well-established populations, but none are native species.

Because all live in close association with man, they transmit diseases and are host to many parasites and insect pests. Their nests create fire hazards, and droppings deface and ruin property.

Starling roosts are a frequent problem in urban areas because of noise, filth, odor and related health concerns. Starlings also compete for nesting sites with native cavity-nesting birds such as bluebirds, flickers, woodpeckers and purple martins.

Pigeons may carry pigeon ornithosis (psittacosis), Newcastle disease, aspergillosis, pseudotuberculosis, pigeon coccidiosis, toxoplasmosis, encephalitis and Salmonella typhimurium. Except for the last three, these diseases rarely infect humans, but may be serious if not diagnosed promptly. Salmonella is found in about 2 percent of pigeon feces and is statistically the most frequent cause of salmonella food poisoning in humans.

Histoplasmosis and cryptococosis are systematic fungus diseases which may be contracted by cleaning up dusty bird manure. Bird ectoparasites—bugs, fleas, ticks and mites—frequently invade homes from bird nests in or on buildings and transmit diseases by biting. Some bites cause welts and skin infection.

Bird droppings deface and accelerate deterioration of buildings and automobiles and land on unwary pedestrians. Bird feces is a common contaminant of grain destined for human consumption. Nests may clog drain pipes, interfere with awnings and make fire escapes hazardous.

Population Control

To control large-scale urban bird problems, it is necessary to understand population control as a management technique. In good habitats abundant

animal species recover quickly from the loss of individuals. Animal populations respond with increased birth and survival rates and decreased emigration. These are known as *compensatory responses*. Increased immigration may follow removals, and some animals learn to avoid control efforts.

The most effective way to control problem birds is to understand their daily requirements, and remove or exclude these. This kind of manipulation for purposes of increasing or decreasing numbers is an important part of wildlife management. Some basic principles provide a background for understanding how to control problem birds effectively and appropriately.

To survive, all wild animals need *habitat*, which is comprised of four essential elements: space, food, shelter and water. Wildlife managers manipulate these elements to attract and maintain wildlife species and control problem species.

Space is the area needed by a wild animal. Just as some people are happy in a city apartment while others need a sprawling ranch, some birds need more space than others. In reference to wild animals, there are two kinds of space:

- *home range*—the entire area that an animal uses to eat, sleep, and go about its daily activities;
- *territory*—that portion of the home range an animal defends against intruders, usually where it raises young.

In most cases, the male bird establishes and defends the territory. In the spring the brightly colored male sings to attract a mate and to announce to

other male birds of the same species the location of his territorial space. After the pair builds a nest, the male continues to defend the territory while the female hatches eggs. This factor cannot be controlled because space is determined by the area of a yard or farmstead.

Food, water and shelter are elements that can be manipulated to manage birds in the yard or other urban setting. Providing these attracts birds; removing them keeps birds away. All are essential, yet not all bird problems can be eliminated by taking away just one element.

Variety is a key word in wildlife management. It is often necessary to use a variety of excluding and repelling methods simultaneously to control nuisance birds.

Food sources for birds include seeds, fruits, berries and insects. To reduce the number of problem birds, eliminate or control their access to food. Strategies for controlling problem birds around homes are often different from those needed around farmsteads. The homeowner may reduce the number of undesirable birds

Urban Wildlife Damage Control

- | | |
|---|--|
| <input type="checkbox"/> Bats, L-855 | <input type="checkbox"/> Skunks, L-862 |
| <input checked="" type="checkbox"/> Birds, L-856 | <input type="checkbox"/> Tree Squirrels, L-863 |
| <input type="checkbox"/> Blackbirds in Roosts, L-857 | <input type="checkbox"/> Snakes, L-864 |
| <input type="checkbox"/> Cottontail Rabbits, L-858 | <input type="checkbox"/> Woodchucks, L-865 |
| <input type="checkbox"/> Muskrats, L-859 | <input type="checkbox"/> Woodpeckers, L-866 |
| <input type="checkbox"/> Opossums, L-860 | <input type="checkbox"/> Woodrats, L-867 |
| <input type="checkbox"/> Raccoons, L-861 | |

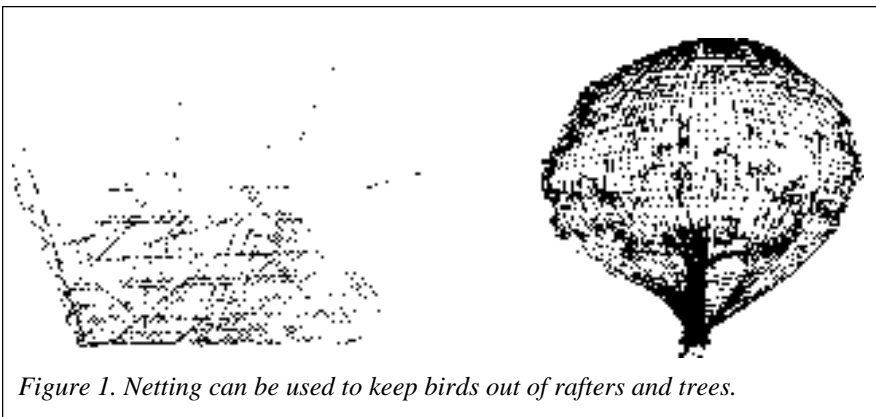


Figure 1. Netting can be used to keep birds out of rafters and trees.

by choosing plants that do not produce edible nuts, fruits and berries, or by changing the type of food offered in bird feeders.

Variety is necessary for successful bird damage control. **Use different methods, and change them so birds do not become accustomed to them.**

House sparrows are often a problem at the feeder. To reduce their number, feed them straight sunflower seeds—preferably the black, oil-type—instead of a seed mixture, and discontinue feeding in the spring, summer and early fall. Make it difficult for house sparrows and other large birds to feed by using tubular feeders without perches. These feeders are easily accessible to the clinging birds such as nuthatches, chickadees and titmice. Lure house sparrows away from the feeding station by using a platform-type feeder, loaded with a mixture of white proso millet and cracked corn, at the back of the yard away from the other feeders. If many sparrows still visit the feeder near the house, try one of the trapping methods described in this publication.

All birds need shelter for cover, roosting and nesting. The kind of shelter depends on the season, the species and the reason for seeking shelter. When birds roost or nest in inappropriate places, denying access to roost sites will discourage feeding also.

When birds nest in inappropriate places, be persistent about removing nests; birds will keep trying to reestablish them in the same place. A longer term solution is to exclude birds from an area or make it less comfortable.

Various methods can be used to prevent birds from nesting or roosting on ledges and rafters or under eaves and other overhangs.

- Put nylon or plastic netting on the underside of rafters or overhangs to keep birds out, or cover entire fruit trees with netting to keep birds from roosting or eating the fruit. (Figure 1).
- Use sticky repellents (Tanglefoot™, Roost-No-More™, 4 The Birds™) on rafters and ledges. These are effective in discouraging roosting, but they are messy, collect dirt and may need to be reapplied several times a year.
- For birds outside of a building, install netting or a metal covering from the outside edge of the eave down to the wall.
- Hang clear plastic strips from doorways of barns and sheds; machinery, livestock, and people can pass through, but most birds will think it is a solid door.
- Build a catwalk at rafter level that allows barn cats easier access to birds on rafters.
- Install “porcupine wires,” permanent, heavy wire prongs that stick out at different angles, making the area like a bed of nails (Figure 2). For barn swallow nests, wire prongs must be placed on the side of rafters or underneath the eaves.
- Put a board or metal covering over ledges at a 45-degree angle (or greater), making them less suitable for nesting or roosting. Make sure the ends are closed to prevent entry (Figure 2).

To disperse large flocks of birds roosting in trees, habitat modification or frightening techniques may be the most effective. Some species such as blackbirds, starlings and crows form groups in the evening and roost together through the night. These social birds will try to stay together in the roost, a known meeting place.

Make the roost undesirable or uncomfortable by thinning the roosting trees and shrubs to reduce cover. The changes need not be dramatic to be effective.

A water source is essential year-round and can attract birds to areas like feedlots and grain storage. Starlings, in particular, are attracted to water. Where birds are a problem, any unnecessary water—in troughs, junk piles, ruts or low spots—should be drained. The water level in troughs should be kept low enough so birds cannot reach it when perched on the edge, and deep enough so they cannot stand in it.

Frightening

Frightening devices include alarm and distress calls played over loud speakers, exploding shells, automatic gas exploders, tethered balloons with big “eyes” painted on them, hawk silhouettes, water sprays, flashing lights, and devices to shake roosting vegetation. These tactics repel starlings and some other birds, but seem to have little or no effect on house sparrows and pigeons. Balloons

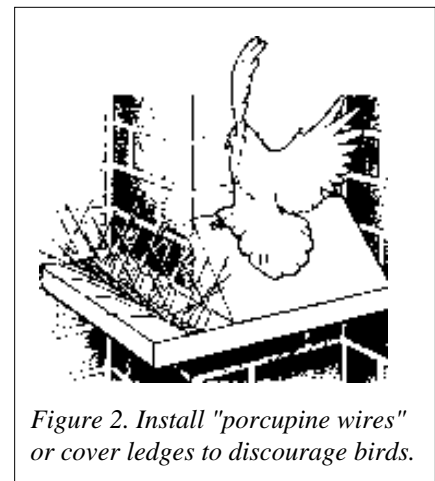


Figure 2. Install “porcupine wires” or cover ledges to discourage birds.

may offer a measure of control for house sparrows in buildings. Simultaneous use of visual scare devices and noisemakers seems to be most effective.

Visual scare devices must be moved frequently so birds do not become accustomed to them. With scaring sounds, use mobile sound equipment so the location of the sound can be changed. When using automatic gas exploders, elevate them above the vegetation.

Birds are more willing to leave a roost they have not been using long. After detecting large numbers of roosting birds, act as quickly as possible. Some species are easier to move in the fall when they are restless and preparing to migrate.

It often takes 5–7 nights or more of continuous effort for frightening programs to be effective. Sometimes birds move to a new roost nearby and again several times within an urban area before they move to an acceptable site or out of town. In these situations, birds may become desensitized to scaring devices, so use several methods.

Birds scare more easily when they are flying and are most difficult to scare when perched in the relative protection of their roost. For this reason, scaring should begin at least 1½ hours before dark, when the first birds are coming in to roost, and should stop at dark. Do not try to scare any longer because the birds will become accustomed to the sounds. If you are using distress or alarm calls,

play them 10–15 seconds every minute as the birds are coming in. When most of them are perched, play the call continuously until dark. Early morning scaring may be used in conjunction with evening scaring and should begin as soon as the first bird movement is detected in the roost, often just before daylight.

On the first night of scaring, the birds will usually act alarmed and circle around, but eventually they will come in to roost. It may take several days of continuous scaring efforts—every evening and every morning—to be successful. The birds may attempt to establish temporary roosts in other un-suitable locations. Scaring efforts must continue until the birds are moved to an acceptable area. If birds are disturbed in their new roost site they may move back to the old site. Be prepared to resume scaring efforts if the birds return.

Other Controls

To keep birds from flying into glass windows use the hawk trick. Migrating birds often mistake large picture windows or glass doors for open space with tragic results.

One way of reducing this hazard is to cut out a falcon silhouette and stick it on the glass with clear plastic tape in a steep—but not vertical—dive as illustrated. Use only one “falcon” to a window, placing in either of the upper corners (*Figure 3*).

To keep birds from perching or roosting on undesirable places try the shredded newspaper trick. If you do not want birds to perch on a post, for instance, tie a newspaper around its top, leaving 6 inches or so extending above. Shred this part. Birds won't perch as long as the paper lasts. If the problem is a window sill, staple a strip of the paper to the sill letting the shredded ribbons lie across its surface.

Birds also object to perching on or near angled wire spines, so a good repellent can be a cluster of short, stiff wires. Coat hanger wire is about right. Cut six, 6-inch lengths. Bundle them together and staple one end securely to a good footing such as a block of

wood or directly to the surface to be protected. Now bend each piece of wire up and over so that the spines stick out like cactus spikes, giving the approaching bird little choice but to keep on flying. Several clusters will be needed to keep a window sill clear of birds.

To keep birds out of gardens try a phony owl. It can be made life-size from a board or other materials. A good one can be made from wooded net-floats. Use a long one for the body and split another long one to fasten on each side as wings. Use a round one with bored-out eyes for the head and a disk-shaped one for the feet. The important thing is to move it frequently to keep the birds guessing.

Other effective scare devices include string-tethered balloons, aluminum pie plates, wind turbines made of plastic milk jugs, or anything that whirls or twists in the wind. Here again, it is necessary to make frequent changes. Sooner or later the birds will lose their fear of any scare device if it remains in one place. For that reason, the traditional scarecrow is nearly always useless. A more reliable method is to use netting over individual trees or entire gardens to prevent damage.

Netting or trapping is a good alternative for controlling nuisance birds in areas where there are other bird species. Live trapping methods such as funnel entrance, automatic and triggered traps, nest box traps, decoy traps and mist nets are widely used for house sparrow control (*Figure 4, page 4*). With these methods, protected songbirds can be released unharmed. When using traps, prebait the area without a trap for 1 or 2 weeks by putting out a bait like cracked corn. Then set the traps with the same bait inside. Make the traps more attractive by placing live decoys of the same species inside in a separate compartment so they cannot escape. Provide food and water for the decoy birds. Check the traps several times each day so you can release nontarget birds unharmed and reduce the number of birds that might find a way to escape.

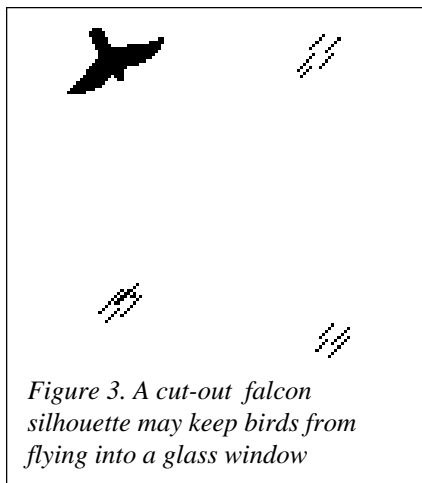


Figure 3. A cut-out falcon silhouette may keep birds from flying into a glass window

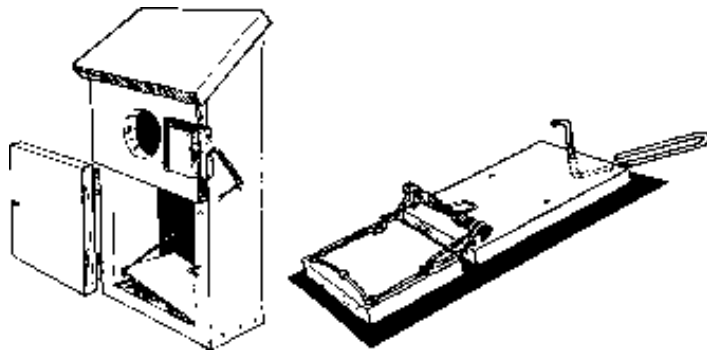


Figure 4. Nest-box trap with modified mouse snap trap trigger. Useful for trapping pigeons, house sparrows or starlings.

Destroy house sparrows, starlings or pigeons caught in the trap in a humane manner. Check with local animal control or wildlife conservation officers for trapping rules. Some cities and towns require special permits.

Chemical Controls

If exclusion from food or roosts is not possible and trapping or scaring has proven ineffective, chemical control is another alternative. However, it is not always a good choice and often does not provide satisfactory results. Before using chemicals, first determine what kind of bird is causing the problem. House sparrows (sometimes called English sparrows), starlings and pigeons are the most common offenders.

Without a permit, chemical controls can be used only on these three species. Avitrol is a chemical frightening agent. It is available for house sparrows, starlings and pigeons in a

corn or pelletized bait impregnated with the chemical *4-Aminopyridine*. The pelletized form of Avitrol is usually best for starlings, and the corn or wheat form is best for house sparrows and pigeons. Avitrol is also available in liquid and powder form. Cubes of stale bread soaked in a mixture of the chemical and vegetable oil also have been effective on starlings in farm and industrial buildings.

For best results, prebait with non-toxic bait. For the pelletized form of Avitrol, pre bait with untreated pellets. For several days put untreated bait where the birds feed or roost so they become accustomed to eating it. Make sure to keep it away from livestock feed or where it can be otherwise consumed by livestock. Once the birds are feeding readily on the untreated bait, switch to the toxic bait. Some birds will die, displaying distress signals that frighten other birds away. Because using chemical controls may

Some of this information adapted from Managing Iowa Wildlife: Problem Birds Around Homes and Farmsteads, Iowa State University, 1991.

result in birds dying in public places, public understanding and support should be secured before they are used. Without it, a public relations problem may arise. Be sure to collect all carcasses and dispose of them properly by burying or burning. Because Avitrol is toxic to birds, it can only be used to control house sparrows, starlings and pigeons and where no other species of birds will come in contact with the pesticide.

Federal and state laws protect all songbird species except house sparrows, pigeons and starlings. Read and follow all label directions.

Avitrol is a restricted-use pesticide, and may be used only by a certified applicator or persons under the direct supervision of a certified applicator.

Starlicide Complete™ can be used to reduce starling populations **in rural areas only**. This pesticide is available in a pelletized bait and causes a slow, non-violent death. **Read and follow all label directions.** This product is not labeled for use in urban areas.

For further information contact Animal Damage Control, Room 128, Call Hall, Kansas State University, Manhattan, Kansas 66506-1600, (913) 532-5654.

Also, watch for the publication, *Sources of Wildlife Damage Control Supplies*, Rural and Urban, to be published later.

Brand names appearing in this publication are for identification purposes only. No endorsement is intended or implied, nor is criticism of similar products not mentioned.

**Charles Lee
Extension Specialist
Wildlife**

**F. Robert Henderson
Former Extension Specialist
Animal Damage Control**

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available on the World Wide Web at: <http://www.oznet.ksu.edu>

Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case credit, Birds—Urban Wildlife Damage Control, Henderson and Lee, Kansas State University, October 1992.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service