

# VULTURES



Figure 1. Turkey vulture. Note the red head. Photo by USFWS-Pacific Southwest Region.



Figure 2. Black vulture. Note the black head. Photo by Ken Thomas.

## OBJECTIVES

1. Explain key elements about vulture biology important for their control.

2. Understand the Federal laws and regulations restricting the control of vultures.
3. Explain vulture control options to clients.

## SUMMARY OF DAMAGE PREVENTION AND CONTROL METHODS

### HABITAT MODIFICATION

Removal of roosting trees and branches

At time of birthing, bring livestock closer to buildings so they can be more easily monitored

### EXCLUSION

Netting

Lines on ledges, particularly electrical

### FRIGHTENING

Pyrotechnics

Red lasers

Vulture effigies

### REPELLENTS

Methyl anthranilate

### TOXICANTS

None registered

### FUMIGANTS

None registered

### TRAPPING

Walk-in trap

## OTHER CONTROL METHODS

Cannon nets

## SPECIES PROFILE

## IDENTIFICATION

The turkey vulture (*Cathartes aura*, Figure 1), is larger than the black vulture (*Coragyps atratus*, Figure 2), with an average weight of 4 pounds. It is predominantly dark brown-black with a featherless, bright red (adult) or brown (juvenile) head and a relatively long, narrow tail. The undersides of the wings are gray except along the leading edges, which are black.

The black vulture also is predominantly black including a dark gray to black head (juvenile and adult). The tail is shorter and wider (fanned) than that of the turkey vulture and weighs 4.4 pounds. The undersides of the wings are dark gray with large white patches near the wing tips. Turkey vultures have been reported to live up to 16 years and black vultures up to 25 years.

Turkey vultures and black vultures have a wing span of 67 and 59 inches, respectively.

## SPECIES RANGES

Turkey vultures have become increasingly abundant throughout the Northeast (Figure 3). Range of the black vulture (Figure 4) tends to center in the Southeast, though they have extended their range northward into Maryland, Delaware, New Jersey, and Pennsylvania during the past 50 years.



Figure 3. Range of the turkey vulture. Image by Stephen M. Vantassel.



Figure 4. Range of the black vulture. Image by Stephen M. Vantassel.

## VOICE AND SOUNDS

Both species hiss and grunt.

## TRACKS AND SIGNS

Vultures have a footprint with three distinct toes (Figure 5). Turkey vultures fly with their wings formed in a “V” shape (Figure 6).

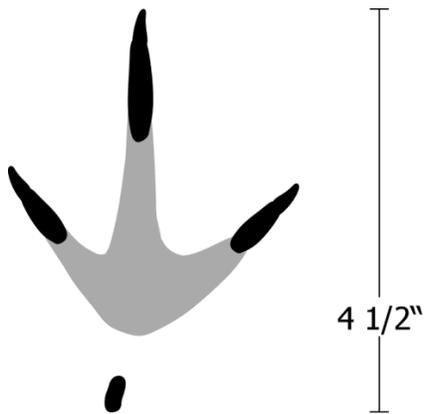


Figure 5. Track of turkey vulture. Image by Dee Ebbeka.



Figure 6. Turkey vulture in flight. Note the silver flight wings. Black vultures only have a silver patch on the primary feathers. Photo by Lee Karney.

## GENERAL BIOLOGY

Vultures largely are scavengers, feeding on carrion, road kill, and the remains of animals left by predators. Vultures have keen eyesight that they use to locate food. The turkey vulture is able to find food by smell, but black vultures, lack a highly developed sense of smell. Vultures have strong bills for pulling

and tearing but relatively “weak” feet, so they are not able to lift or carry much. Turkey vultures often roost in large numbers at night.

## REPRODUCTION

Both species usually lay two eggs that hatch in approximately 40 days. Young are cared for by both adults for about 3 months. Black vultures mate in thinly wooded areas with thickets. Parents mate for life.

## NESTING COVER

Vultures do not build nests, but lay their eggs in dense thickets, in hollow logs, on rock ledges, in caves, and in abandoned buildings. Vultures congregate in large communal roosts, typically located in wooded hollows or ravines with drainage into lakes or rivers. Occasionally, vultures roost in backyard trees, on bill boards, suburban rooftops, and water, electrical, radio, and microwave towers. Roosts are used throughout the year but have the largest numbers during the late autumn through early spring. Roosts are dynamic and vultures may use different roost sites each night. Turkey vultures and black vultures may roost together.

## BEHAVIOR

Turkey vultures migrate north in spring and south in fall. They feed on dead animals left after the burning of cane fields in the winter. Black vultures tend to remain in the southern portion of the US. Both species nest statewide in Alabama and are present year-round.

## HABITAT

Vultures thrive in areas with open fields. Turkey vultures especially are adapted to forage in wooded areas, locating food by smell.

## FOOD HABITS

Although vultures occasionally prey on domestic fowl and livestock, they feed primarily on carrion and have adapted to specialize in scavenging carcasses. Black vultures may kill and consume vulnerable newborn livestock in open pastures.

## LEGAL STATUS

Turkey vultures and black vultures are Federally protected by the Migratory Bird Treaty Act, administered by the US Fish and Wildlife Service. A Federal permit is required to trap, kill, relocate, or otherwise handle vultures or their eggs. Federal and State permit applications are available from USDA–APHIS–Wildlife Services program. Permit applications are processed by the US Fish and Wildlife Service ([www.fws.gov](http://www.fws.gov)). USDA–APHIS–Wildlife Services offers technical and operational assistance to the public and other government agencies ([http://www.aphis.usda.gov/wildlife\\_damage/index.shtml](http://www.aphis.usda.gov/wildlife_damage/index.shtml)).

## DAMAGE IDENTIFICATION

Property damage and nuisance problems have been attributed to turkey and black vultures. Livestock predation has been attributed to black vultures, and both species jeopardize aircraft safety when in or around airport environments and involved in wildlife-aircraft collisions (bird strikes).

## DAMAGE TO STRUCTURES

Nuisance and property damage involving turkey and black vultures include unwanted congregations of these birds around areas of human activity (homes, schools, churches, shopping areas). Congregations of vultures result in accumulations of feces on trees and lawns, residential and commercial buildings, electrical and radio transmission towers, and other structures. Accumulations of droppings can have unpleasant odors. Accumulations on electrical transmission towers have resulted in arcing and

localized power outages. Public water supplies have been contaminated with fecal coliform bacteria as a result of droppings entering water towers, springs, or other sources. Other property damage attributed to vultures includes tearing, and sometimes consuming asphalt shingles and rubber roofing material, rubber, vinyl, or leather upholstery from cars, boats, tractors, and other vehicles, latex window caulking, and plastic flowers at cemeteries. Most damage of this type is attributed to black vultures, although turkey vultures have been implicated in some situations.

## DAMAGE TO PETS AND LIVESTOCK

Black vultures have been known to attack young and vulnerable livestock. Typical attacks are directed toward the animals' eyes, followed by pecking at rectum, genitals, and nose (soft parts of the animals). Black vultures may pluck the eyes and eat the tongues of newborn, down, or sick livestock, disembowel young livestock, kill and feed on domestic fowl, and cause flesh wounds from bites. Attacks during birthing also have occurred. Vultures are attracted to afterbirth.

## DAMAGE TO LANDSCAPES

The volume of excrement and accompanying smell are the biggest issues related to vulture's impact on gardens and landscapes.

## HEALTH AND SAFETY CONCERNS

Concentrations of vultures can be hazardous to aircraft, especially when sanitary landfills are situated in proximity to flight paths at airports.

Turkey vultures may carry salmonella and other gram negative bacteria in their stomachs. Vultures do not spread anthrax, hog cholera, or avian influenza.

## DAMAGE PREVENTION AND CONTROL METHODS

### INTEGRATED PEST MANAGEMENT

#### TIMING, ECONOMICS, AND METHODS

The best approach to vulture control is to consider and apply several safe, effective, legal and practical techniques and methods. An integrated vulture damage management program may include habitat management, harassment, and/or population management.

### HABITAT MODIFICATION

The elimination of vulture food, roost trees, and nest sites will reduce the number of birds in the area. Removal of roost site trees and pruning of branches may induce birds to abandon a traditional roost site.

Clean farming practices that include prompt carcass disposal, rendering, burial, or incineration and protected lambing and calving will reduce available food sources. Black vultures are often attracted by and feed on afterbirth before damaging a newborn calf or lamb. The scent of afterbirth can attract vultures from a great distance. Disposal of afterbirth will help to reduce this attraction.

### EXCLUSION

Barriers such as overhead monofilament grid lines and netting also may be used to exclude vultures from protected areas.

Install taut wire on rooftops about 8 inches above and parallel to the ridge line of the roof to discourage or prevent birds from perching. Maintain high tension on the wire so vultures cannot push it down, straddle, or perch beneath it.

Electrical ledge products may be effective in deterring vultures from treated surfaces (Figure 7).

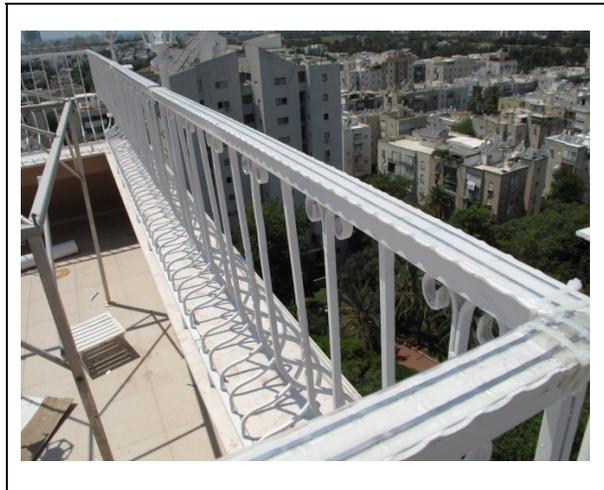


Figure 7. Bird Stop™ Electric Tape protecting a handrail. Photo by Bird Stop™ USA.

### FRIGHTENING DEVICES

Vultures may be harassed away from an area with pyrotechnics fired from a pistol launcher, shell crackers fired from a 12-gauge shotgun, or propane cannons. Prior to initiating a harassment program, consult your state and local laws regarding the possession and use of firearms and pyrotechnic launchers, and review firearm discharge, noise and bird sanctuary ordinances. Comply with all regulations and instructions, particularly those pertaining to the use of hearing and eye protection. When using shell crackers with a 12-gauge shotgun, a break-action firearm should be used to enable examination of the bore after each discharge to check for material that may have lodged in the barrel.

Harassment with pyrotechnics and shell crackers must be diligent, persistent, and initiated as soon as the problem is recognized. Birds that have habituated to an area will be more difficult to scare away. To harass vultures away from a large, traditional communal roost, considerable effort must be employed. At dusk until dark, fire pyrotechnics as the birds approach the roost site

until the flock breaks up and disperses; this may have to be repeated each night for up to 1 week or more, since different vultures may be present each night. Continue to use pyrotechnic harassment to divide the flock into smaller groups and to chase them from the area. Pyrotechnics with a shorter range fired from a handheld launcher are recommended for urban and suburban areas (subject to local laws). Shell crackers (12-gauge), with a range of more than 100 yards, are more appropriate for use in rural situations.

Vultures can be repelled by the distress calls of other birds including crows, starlings, and blackbirds. Recorded bird distress calls are commercially available. Taped distress calls should be amplified over the roost area for short periods of 10 to 15 seconds, except during the last half-hour before dark. During this time the tape should be played continually until dark.

Red lasers have been successful in causing most roosting birds to disperse from roost sites at nighttime or low light conditions. Persistence may be necessary.

Roosts have been dispersed by helium-filled Mylar® balloons tethered by Mylar® tape and allowed to rise into the roost trees. This technique has worked in areas where vultures have habituated to noise harassment or where local ordinances have precluded noise harassment. Habituation to this technique may occur within several months to a few years. Vultures have also been reported to be repelled by presence of a dead vulture or effigy suspended in or near a roost tree or structure. In one case, a vulture that died and hung from a radio tower for several months resulted in the abandonment of the tower as a roost. Federal and state permits must be obtained to use dead vultures (rather than plastic replicas).

## REPELLENTS

Methyl anthranilate is registered for repelling birds. The product may be dispersed using thermal foggers

or by ultra-low volume cold-foggers. It is advisable to consult with USDA-APHIS-Wildlife Services and US Fish and Wildlife Service before application.

## TOXICANTS

No toxicants are registered for vulture control.

## FUMIGANTS

No fumigants are registered for vulture control.

## SHOOTING

Shooting is very effective for eliminating vultures that resist the effects of hazing. Shooting also reinforces the effectiveness of hazing. Vultures are intelligent and respond quickly when one or two members of a flock are killed. Use 12-gauge shotguns using 2¾ or 3 inch shells with No. 4 lead shot. Center-fire rifles such as .223, .270, or .30-06 may be used for long-range shooting in more rural areas. Use of a rifle to shoot vultures must be specifically requested on the permit applications, and included as a legal technique on permits.

Permits can be obtained from the US Fish and Wildlife Service (USFWS) or from the USDA APHIS Wildlife Services program. The completed application must be submitted to the FWS, accompanied by the appropriate processing fee. Comply fully with the conditions of the permit, including the annual report of the number of vultures taken. Carry the permit with you during control activities.

## TRAPPING

Vultures can be wary of traps. Trapped vultures often struggle and vomit to avoid their captors. As with shooting, state and federal permits are required for capturing vultures.

## CAGE TRAPS

Walk-in traps (such as the Comb's vulture trap, Figure 8) can be constructed with 30 x 4 feet of 1 x 2 inch mesh. Fold the mesh to form two unequally sized chambers. Cut a gap in the barrier between the two chambers large enough to allow the birds to enter. Cage diameters can vary from 10 to 40 feet with a height of 4 to 5 feet. The bottom can be left floorless. A funnel door or just an inverted "V" at one end of the trap should be large enough to let vultures enter. The funnel should be 8 to 10 inches in width and 12 inches tall at the entrance and narrow down to 6 to 8 inches wide and 12 inches tall. The funnel should be 12 inches in length. Install an electric fence around the trap to prevent scavenging mammals from accessing the bait.

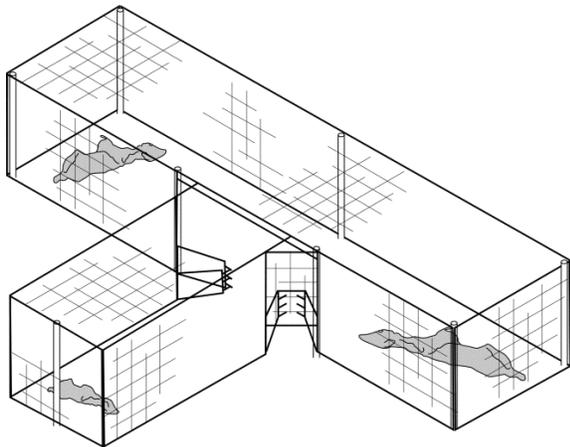


Figure 8. Comb's vulture trap. Image by Dee Ebbeka.

## HANDLING

The safest approach, regardless of the type of trap, is to toss an old blanket or coat over both the bird and trap. The darkness will calm most birds and make them less able to defend themselves. Reach in carefully with your bare hands and grasp the bird's lower legs. Pull the bird out of the trap so that it is clear of any object on which it could injure itself. Fold the wings down against the body and hold them securely. Check the bird for any signs of external

injury, such as cut feet or legs, excessively battered feathers, or scalping (the splitting of the skin over the forehead). If the bird is injured, have a local veterinarian examine it, or in extreme cases, transport it to the nearest raptor rehabilitation center.

Vultures should be restrained before they are transported to reduce the chances of injury to both the bird and handler. The best transport container is a stout, covered cardboard box.

Select a box that is large enough for the bird to stand upright. Holes should be punched near the bottom of the box to supply fresh air and keep the raptor from struggling toward any cracks of light coming from the top of the box. Carry only one bird per box. Tape an old rag or towel to the floor to provide a good gripping surface to keep the bird from slipping. If possible, ask a local bird bander to attach a leg band. Banding information can be very useful to the research and management of raptors. Transport the bird as quickly and comfortably as possible. Minimize excess handling, and above all, keep the bird calm and cool. More birds die of overheating during shipment than of any other cause.

## RELOCATION

Relocation of vultures is not recommended except in rescue situations.

## TRANSLOCATION

The home range of vultures can be greater than a 9 mile radius, and some birds will have migratory behavior, so vultures should be transported at least 100 miles. Birds should be tagged to determine if they return to capture site.

## EUTHANASIA

Carbon-dioxide is a suitable form of euthanasia.

## DISPOSAL

Refer to Volume 1 of the National Wildlife Control Program and your state regulations regarding carcass disposal.

## OTHER CONTROL METHODS

Rocket or cannon fired nets can be effective in capturing vultures. Special licenses are needed to transport net charges. Nets fired by compressed air are also effective.

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## RESOURCES

## KEY WORDS

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## ON-LINE RESOURCES

<http://www.outdooralabama.com/watchable-wildlife/what/birds>

<http://pcwd.info>

<http://icwdm.org>

[http://raptors.hancockwildlife.org/staticpages/index.php?page=pg\\_0215](http://raptors.hancockwildlife.org/staticpages/index.php?page=pg_0215)

<http://www.raptorcenter.org/turkey-vulture.asp>

## DISCLAIMER

Implementation of wildlife damage management involves risks. Readers are advised to implement the safety information contained in Volume 1 of the National Wildlife Control Training Program.

Some control methods mentioned in this document may not be legal in your location. Wildlife control providers must consult relevant authorities before instituting any wildlife control action. Always use repellents and toxicants in accordance with the EPA-approved label and your local regulations.

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