Wildlife Damage Management Fact Sheet Series

Crows

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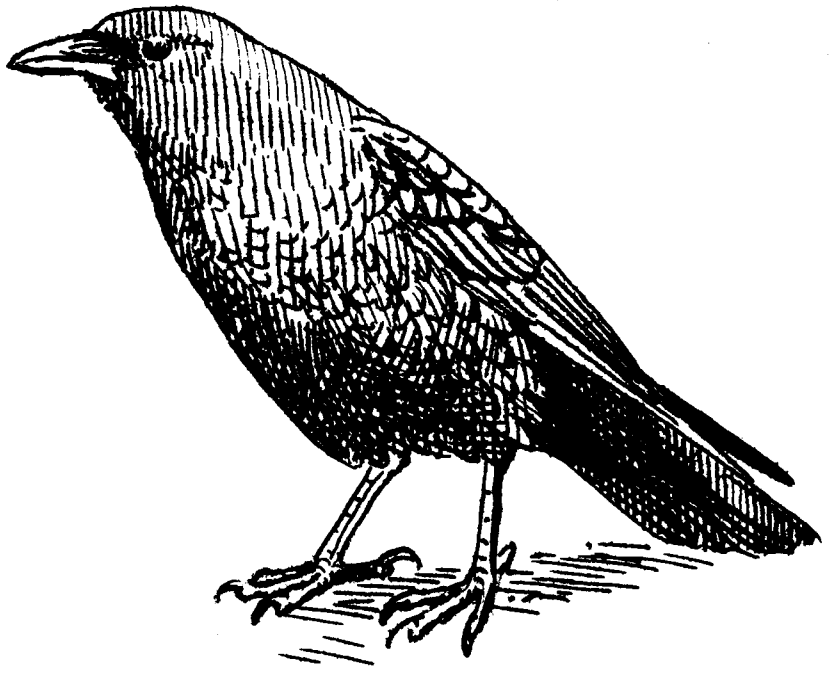
Crows, as well as jays and ravens, are members of the family Corvidae. These intelligent and adaptable birds exhibit sophisticated social behavior and are common in and near areas inhabited by people.

Two species of crows are present in New York State. The American crow (*Corvus brachyrhynchos*) is widespread throughout the state and may be locally abundant. These crows are large birds, 17 to 21 inches in size, with coal black plumage and the familiar call, "caw caw." The fish crow (*Corvus ossifragus*) is a common resident on Long Island, in New York City, and in the tidal areas of the Hudson Valley. In the past fish crows were restricted to the coastline from southern New England to Texas, but in recent decades they have been expanding their range inland, especially along large rivers and lakes. Fish crows are now found in central New York and, although they are not common, their populations are increasing. Fish crows are somewhat smaller than American crows, with more slender bills and feet. They also have a shorter, more nasal call that sounds like "ca," "car," or "ca-ha."

Over the past several decades, crows have begun roosting in urban and suburban areas. This change in habits has caused an increase in conflicts between people and these interesting, albeit noisy, birds.



General Biology

American crows are cooperative breeders whose offspring may remain with the adult male and female for one to six years and help them to raise subsequent young. The breeding group can become fairly large, including offspring from five different years at one time. American crows in New York hold territories throughout the year, although they may leave for periods of time to feed and roost, especially in winter.

Crows build large nests of sticks, twigs, and coarse stems that are up to 2 feet wide and 100 feet above ground. Nests are built by both adults and are lined with shredded bark, feathers, grass, cloth, or string. Although crows will nest in almost any tree, they seem to prefer oaks and conifers. In areas where tall trees are not available, crows may construct nests along hedgerows, in shrubbery, or even on the ground.

Crows typically have one brood each year, laying from two to six eggs in late March. The incubation period lasts for about 19 days. Upon hatching, the fledglings will remain in the nest for 30 to 45 days. After leaving the nest the young will continue to be fed constantly by the adults for a month, then at lower rates for another month or two.

During fall and winter crows congregate in large groups to feed and roost. A single roost can range from less than a hundred to tens of thousands of birds.

The reason crows roost together in large numbers is not completely understood. It is possible that roosting in large groups affords crows better protection from predators, that they are taking advantage of a large, reliable food source, or that they all chose the same ideal roosting habitat.

In some geographic locations crows are resident year round; in other areas, all or part of the crow population migrates. In upstate New York, crows are partially migratory. Breeding birds tend to stay year round, whereas nonbreeding ones may leave the area completely, migrate slightly southward, then return for the breeding season.

Habitat and Food Habits

American crows prefer to live near a mixture of fields and woodlot. Fields provide food, and trees provide roosting and nesting sites. Crows can be found in woodlots, in wooded riparian areas, farmlands, orchards, parks, cemeteries, suburban, and even downtown areas that have trees suitable for roosting.

Throughout the Northeast, crows have begun to roost and nest more frequently in urban and suburban areas. This change in behavior is not a population explosion of crows but rather an adaptation to human activities. According to surveys conducted by the U.S. Fish and Wildlife Service, American crow populations have increased only slightly since the 1950s. Overall, this population increase is not large enough to be solely responsible for the major influx of urban crows in recent years. Other possible causes include the lack of great-horned owls (the crow's biggest predator) in developed areas, warmer temperatures, larger trees in which to roost, or a readily available food supply.

Crows are omnivorous and will eat almost anything. They are adept at capturing live prey as well as stealing food from other animals and scavenging. Most of the crow's diet, however, consists of vegetable or plant matter. Corn is frequently a principal food item, which crows often obtain from fields after harvest. They also consume acorns and other nuts, wild and cultivated fruits, wheat, sorghum, garbage, and other items. Animal matter in their diet includes grasshoppers, beetles, beetle larvae, caterpillars, spiders, millipedes, dead fish, frogs, salamanders, bird eggs and young, and carrion.

Description of Damage

Historically, most complaints associated with crows stemmed from their damage to agricultural crops. Crows may pull seedling corn plants by the sprouts and consume the kernels. They may also damage sorghum, sunflowers, fruits (including watermelon), and ripening corn during the milk stage. Occasionally crows may attack newborn calves, pigs, goats, or lambs in unprotected open fields near large roosts. More often they will scavenge stillborn young.

Large crow roosts in fall and winter can cause problems when they are located near residential or commercial areas. Noise, health concerns, odor from the bird droppings, and damage to roost trees can cause serious conflicts.

Laws and Regulations

Crows are protected by the federal Migratory Bird Treaty Act of 1918. However, a federal permit is *not* required to control crows "when found committing or about to commit depredations upon ornamental or shade trees, agricultural crops, livestock, or wildlife, or when concentrated in such a manner as to constitute a health hazard or other nuisance." New York State Environmental Conservation Law (Section 11-0523) also states that landowners or those cultivating lands may take crows when they injure property or become a nuisance. In addition, legal hunting seasons for crows are established by Environmental Conservation Law.

Preventing Damage

As for any wildlife species, the key to reducing damage is to act quickly when damage first begins. Crows, like other species, can be very persistent, and once habits are established they can be hard to break. In urban and suburban areas attempts to disperse individual roosts may cause the crows to move to a more objectionable site. In addition, certain site-specific techniques, such as the use of recorded calls, can become time intensive and expensive if personnel simply end up chasing crows from one problem site to another. Therefore, attempts to disperse roosts, particularly large ones, should be weighed before actions are taken. A list of acceptable and unacceptable roost sites is provided to guide communities and local officials in determining the acceptability of these sites (Table 1). Several key criteria must be considered during a site evaluation, including legitimate health concerns, damage to equipment and natural resources, and nuisance considerations (odor and noise). Based on these general considerations, the potential for human contacts with droppings as well as damage to property should be examined on a continual basis.

Chemicals

Currently no repellents or toxicants are registered by the Environmental Protection Agency for use against crows.

Exclusion

Exclusion of crows may be successful in some situations. Nylon or plastic "bird netting" can be useful in keeping crows out of high-value crops or small garden areas. Monofilament lines have been used in several parallel or gridlike spacings and configurations to reduce bird damage at landfills, public parks, and agricultural fields. Crows, as well as gulls and sparrows, appear to be particularly sensitive to lines and have been successfully repelled. Usually lines are practical only for small plots or home gardens.

Frightening Devices

The use of biosonics, that is distress or alarm calls, has been found to be an effective method of dispersing crows from roosts in urban areas. Distress calls of crows must be used in order to be effective. However, broadcast distress calls may conflict with local noise ordinances. Therefore, it is important to coordinate with local law enforcement authorities before beginning a hazing program. Education programs for local residents are suggested to inform people about why the hazing activity is taking place as well as the potential duration.

Table 1. Acceptable and unacceptable locations for crow roost sites within communities

Generally unacceptable	Generally acceptable
Parking areas	Greenways/trails
Pedestrian traffic areas	Parks
Restaurants	Cemeteries
Schools/playgrounds/daycare facilities	Highway on/off ramps
Adjacent to drinking water sources	Woodlots
Recreation areas	

Cultural Practices

Thinning branches from specific roost trees or thinning trees from dense stands may help reduce the availability and attractiveness of perch sites.

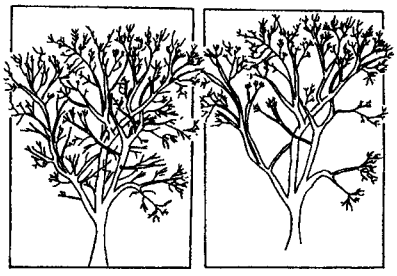


Fig. 1. Tree before and after pruning to reduce attractiveness as a crow roost.

Health Concerns

Histoplasmosis

In some situations, crow and other bird roosts that have been in place for several years and include deep piles of guano may harbor *Histoplasma capsulatum*, the fungus that causes histoplasmosis. Histoplasmosis can cause respiratory difficulties in people who breathe in spores when guano is disturbed. Anyone involved in cleaning up piles of guano should wear a mask capable of filtering particles of 5 microns or greater.

West Nile Virus

Since 1999, West Nile Virus has been detected in more than 80 species of birds. Mortality of wild birds is the most sensitive method for detecting outbreaks of the virus, and state and local health departments are relying on the testing of dead birds to detect the presence of the virus in any given area. The American crow, fish crow, and blue jay have been the most susceptible species so far and are dying in large numbers. Therefore, these species are helping alert us to the spread of the virus into new areas. Although the virus may have a significant effect on populations of certain bird species, according to the Centers for Disease Control and Prevention there is no evidence that a person can contract the virus from handling live or dead infected birds. However, persons should avoid bare-handed contact whenever handling dead animals and use gloves or double plastic bags to place the carcass in a garbage can.

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