

## The American Crow

Despite the unseasonably cool temperatures of the past few weeks, our neighbourhood birds are proceeding full-steam-ahead with nesting duties. Robins are checking out the small blue spruce they nest in each year, and house sparrows have already laid claim to a backyard bird house. For the past week or so, I have also seen a pair of crows perched quietly side-by-side, not far from a tall spruce tree across the road. Crows have nested in this tree for several years now and appear to have every intention of doing so once again. This year, however, I'll be watching the goings-on around the nest with a newfound respect for this much-maligned bird.

As with almost any species that is both abundant and at times annoying – gulls, Canada geese, and gray squirrels come to mind – there is a tendency to demonize and to give little thought as to why the animal is behaving as it does. This is certainly the case with crows. It is easy to write them off as just mindless creatures that have evolved to simply eat, procreate, and annoy. And yes, it's true that they can be infuriating. However, the more one learns about crows, the harder it becomes to disparage this highly intelligent bird. Rather than seeing resourcefulness and sociality as an annoyance, let's try to see these characteristics as reasons for respect and fascination.

The American crow, *Corvus brachyrhynchos*, is a large passerine (perching bird), just like robins and sparrows. It is closely related to jays and ravens. Crows are found throughout Ontario but are most abundant in settled landscapes. As the human population increases in a given area, so does the crow's. They are present year-round, although a large percentage of the population does migrate south in late fall to extreme southern Ontario and the northern U.S.

Crows are skilled opportunists and will feed on whatever is most abundant. This includes everything from insects, seeds, and fruits, to garbage, carrion and nestlings they rob from nests. Since scavenging provides a large percentage of their food, crows most likely evolved in close association with predators such as wolves – abandoned or unguarded carcasses are still an important food source – and with humans. It is easy to imagine crows following early human populations and taking advantage of whatever food might remain from a hunting or fishing expedition. Today, intensification of agriculture, abundant garbage, and higher traffic volumes with the resultant increase in roadkills are new ways in which human activity inadvertently benefits crows.

It's not surprising that crows are quick to take advantage of human goings-on. A crow's brain is the same relative size as that of a chimpanzee. In an IQ test for birds devised by Louis Lefebvre, a professor of biology at McGill University, crows, along with jays, score highest. With this intelligence comes a variety of interesting behaviors, some even akin to play. For example, crows have been seen flying high above the ground against a stiff wind, letting themselves be swept away by its force as they roll and tumble in the air, only to straighten out and do it all over again. They will also drop food items, such as shells and nuts, from the air onto hard surfaces as a means of cracking them open and getting access to whatever is inside. Crows are even known to surreptitiously cache food so that another crow won't locate and steal it. This often includes just pretending to hide something, ostensibly in an attempt to fool other crows that might be watching.

Crows are almost never found alone. It is this tendency to associate with their peers that makes them most interesting. One of the most noticeable social behaviours is known as

roosting. From late summer, through the fall and winter, crows often congregate in the hundreds or even thousands to sleep in communal roosts. An hour or two before darkness, they start flying to peripheral congregation sites, located close to the overnight roosting spot. There is usually a lot of noise-making, chasing, and general squabbling that goes on at these sites. Then, right at dark, the crows move on to their nearby final destination.

The question, of course, arises as to why crows go in for these massive sleep-overs. Although the answer is not completely clear, it may be that the birds are simply congregating in a particularly favorable spot which offers protection from the elements and from predators like great horned owls. For an individual crow, simply being in a large group affords a measure of protection from enemies. There is also the hypothesis that crows are attracted to a roost in order to be able to follow their brethren out from the roost in the morning to good food sources such as landfills or certain types of agricultural fields. Roosting is a completely natural behaviour that crows have benefited from for thousands of years. Granted, the noise and droppings might be aggravating, but it is a shame that some people also see it as sinister and akin to something out of Alfred Hitchcock's "The Birds."

One thing that has changed in recent decades is the extent to which crows are both roosting and nesting in towns and cities. Although crows can be legally hunted, it is illegal to discharge firearms in urban areas. The birds seem to have figured out that spending time in cities can therefore provide more advantages than disadvantages. Cities are also appreciably warmer than rural areas because of the so-called "heat bubble" that surrounds them; artificial lighting such as street lights helps crows watch for predators such as the great horned owl which they are hard-wired to fear; and, in many parts of North America, the largest and best roosting and nesting trees are no longer in the country but rather in urban neighbourhoods, parks and cemeteries.

Crows are also infamous for a behaviour known as mobbing. When a predator such as an owl, hawk, or even a domestic cat is in the area, crows will often respond by cooperatively attacking or harassing the intruder in an attempt to drive it away. Special mobbing calls are produced to summon nearby individuals to join the attack. The collective noise can be quite deafening. Crows will often dive at the predator and utter a special call at the bottom of each plunge before pulling up sharply. These dives sometimes even result in physical contact. Although mobbing may involve some risks, there are obviously benefits. All of the birds in the mob increase their chances of survival and reproduction. An individual on its own, however, would stand little chance against a predator. There is also research showing that crows may even place sentinels in trees to watch for possible predators. This is done so that other nearby crows can safely feed on the ground. When the sentinels start calling loudly, the feeding crows will either fly off or begin to mob the intruder.

The sociality of the American crow also extends to its breeding behaviour. First of all, crows don't breed before the age of two and some may delay even longer. A male who is seeking a mate will face the female, fluff up his body feathers, and then partially spread his wings and tail as he proceeds to bow repeatedly while producing a series of rattling notes. Once a mate has been selected, the union is usually for life. Mated birds do not appear to take part in any further courtship displays in subsequent years. Some pairs of crows have been observed nesting together for as many as nine years. When the female is sitting on the nest, the male will often bring her water by dunking a food item in a puddle or even a birdbath. After ripping up

the food into small pieces, he then takes it back to the nest by stashing it in his throat. Some crows will even leave food in the water. It's not hard to imagine the mess this can make in the birdbath, especially when the prey is baby birds.

Although crows are notoriously noisy in most aspects of their lives, they are disarmingly quiet and secretive when nesting. They usually build their 12-inch diameter stick nest in a conifer and close to the trunk. This can make the nest hard to see. Two to six (average 4.7) bluish-green eggs with brown markings are laid in mid- to late April and incubated for 19 days. The young are ready to leave the nest at about 35 days but require another six to eight weeks of feeding by the parents before achieving independence. Since all of this adds up to about four months of work for the parents, only one brood per year is possible. The parents do get some help, however, from their surviving offspring of the previous one or two nesting seasons. In other words, the whole family cooperates to raise the young. We sometimes overestimate the number of crows that may be breeding in a given area because many of the birds we see are these non-breeding "support workers."

Dr. Kevin J. McGowan of the Cornell Lab of Ornithology has done a great deal of research on crows in central New York. He has found that non-breeders leave the Ithaca area each winter for several months. Mated crows, on the other hand, remain there all year long. One young bird that he tagged had spent the winter in northern Pennsylvania. However, in the early spring it returned to Ithaca, joined up with its parents who were once again nesting, and helped them raise another generation of young. It's hard not to feel a grudging respect and even affection for the American crow when you read accounts like this.