

Crows and Their Similarity to Parrots

Carolyn Swicegood, Hollywood, Florida

DID YOU KNOW THAT...

- Crows have been taught to speak?
- Crows can learn to count?
- Crows can recognize and match shapes?
- Crows feed in flocks with sentinels used as lookouts?
- Crows are empathetic to non-avian creatures?

MOSES AND CASSIE is a popular film that documents the case study of a wild crow that raised an orphaned kitten.

Basic Information About Crows

Crows are members of the family, Corvidae, and the genus, *Corvus*, which includes ravens, magpies, jays, nuthatches, rooks, jackdaws and crows, stout-bodied birds with a large and heavy bill. The average size of a crow is between seventeen and twenty-one inches when measuring from the tip of the bill to the end of the tail. When fully grown, they weigh approximately one pound. Most crows appear to be jet black but their feathers actually include purple and green. Their physical appearance does not differ between the sexes. Only surgical sexing or DNA testing can distinguish male from female crow with any certainty unless reproductive behavior such as egg laying or mating is observed. Its usual call is a loud and raucous “caw-caw” and they fly cautiously. In captivity, both crows and ravens have been known to live for about thirty years but in the wild, the average life span of a crow is seven or eight years.

Crows do not migrate over long distances, but thousands will sometimes spend the night at a common center, and disperse the next morning to visit various feeding grounds. Crows are omnivorous and eat seeds, nuts, berries, insects, frogs, mice, eggs, crustaceans, nestlings, and even carrion. Crows regurgitate “pellets” consisting of indigestible fur, bones, and other material. Curiosity and memory, as well as skills of invention and problem solving, are required for crows to discover and remember a large variety of food sources.

Intelligence of Crows

Corvids are considered to be the most intelligent of all birds. In comparison to their body size, Corvids have the largest cerebral hemisphere of all birds. The American crow has a brain the size of a pecan. They learn fast and share knowledge with each other. There is evidence that they make complex decisions and exhibit many signs of enjoying a high level of awareness. Most Corvids, especially ravens and crows, display behaviors considered by scientists to indicate higher intelligence. Here are a few of those behaviors:

- They create and play games.
 - They exhibit evidence of good short term and long term memory.
 - They have a communication system within the flock.
 - They are able to mimic human speech and other sounds.
- Problem Solving Skills of Crows**
- Crows have been observed dropping palm fruits, walnuts, clams, and mussels onto hard-surface roads. Then they wait nearby until a passing car has crushed the hard shells to return and retrieve the food. Few animals are intelligent enough to employ such complex behaviors related to planning in order to find a solution to a problem.
- Nature writer, Candace Savage, relates another amazing demonstration of the crow’s ability to solve problems. At the University of Chicago, a crow kept by researchers was partly fed with dry food, which it preferred to eat after it was moistened. Sometimes the keepers forgot to add water to the food. The crow, in an apparently spontaneous and untrained act, picked up a small plastic cup that had been provided as a toy, dipped the cup into its water trough, carried the filled cup across the room to the feeder, and emptied the water onto the dry food. If the crow spilled the water in the course of carrying the cup, it would return to the trough for more water rather than continuing to the feeder with an empty cup. This sequence of behaviors is clearly a well-thought out plan and not simply an accidental discovery on the part of the crow.
- Family Life of Crows**
- Crows are sociable birds. Family
- They display skills of problem solving.
 - They create and use tools.
 - They engage in communal hunting.
 - The raising of young crows is a group effort.

life is a large part of their social structure. Male crows will court a desired female by fluffing their feathers, strutting, and flying around her. Crows usually mate for life but in some circumstances, they split up and find another partner. Both members of a breeding pair participate in the building of the nest. Often juveniles from prior years help gather the nesting material. Flocks of crows separate for breeding in late spring or early summer, but gather together again when breeding season is over. During the winter, hundreds or even thousands of them congregate in roosts, usually in the tallest trees or buildings. Flocks of 50,000 roosting crows are not an uncommon sight in the United States and there have been reports of roosts in rural areas of Oklahoma and Nebraska numbering over a million crows.

Just before time to go to roost at sunset, crows gather at the roosting site for social interaction with flock mates. They enjoy chases, mock fights, and loud calling which becomes quite raucous due to the sheer number of voices. Crows are known for nesting in inaccessible places like the tops of tall pine or oak trees. They prefer to build in coniferous trees at least sixty feet tall. The nests are built of branches and twigs and are lined with bark, moss, twine, roots, various plant fibers, and an interesting assortment of other materials. Owls, (especially the great horned owl), hawks, raccoons, snakes, and sometimes squirrels pose a danger to the eggs and nestlings so crow pairs go to great lengths to hide their nest sites. The female does the final arrangement of nesting material into a safe and comfortable place for the eggs and babies. A mated pair of crows sometimes is assisted by several non-breeding members of the flock in nest building, defending the territory, and feeding the nestlings. These helper birds often remain associated with the same breeding pair for several years and it is likely that they are learning valuable mating and parenting skills as they assist

the breeding pair, another behavior common to many parrot species.

Crows typically lay four to six eggs that are drab olive or blue-green with brown or gray splotches. They are incubated mainly by the female, but both members of crow pairs have been observed incubating the eggs, sometimes sitting on the nest together. The eggs usually take between eighteen and twenty days to hatch and the baby crows open their eyes about five days later. All family members help to care for the nestlings, and the demands of the baby crows for food are so noisy that their location is sometimes discovered by hawks, raccoons, and both feral and domestic cats. In spite of a mighty community effort to protect them, crow

nestlings are frequently preyed upon. Crows will attempt to defend their own family members, as well as unrelated crows in need or distress.

Baby crows that survive to the age of four weeks have most of their feathers and usually take their first flight around this age. Like some parrots, the young crows remain with the family for some time after leaving the nest. Frequently, a young bird will remain with its parents through the next nesting season and will assist in the care of new nestlings by bringing them food and guarding the nest site.

Personality of Crows

Crows are curious creatures and they are attracted to all things bright and shiny. They steal trinkets, jewelry,

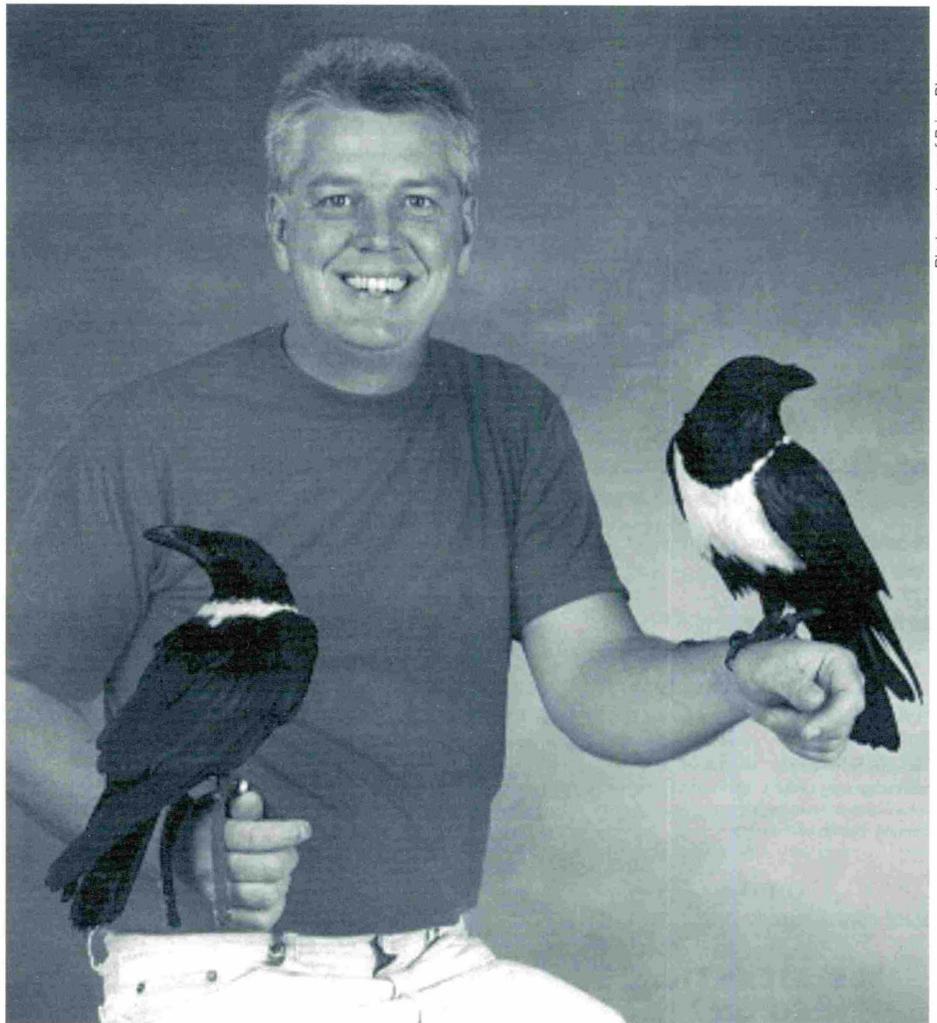


Photo courtesy of Brian Blazer

Brian Blazer is devoted to crows! He raises and handfeeds African Pied Crows as companion birds, two are shown here.

and coins and stash them in hiding places. Families that have kept pet crows describe them as busy creatures on a constant hunt for treasures for their private collection. Jerry Vance of Missouri, reports that when he was a youngster he had a pet crow named Henry who followed him everywhere. Henry would pick up every shiny object that he could carry in his beak and add it to his special "stash," which he kept hidden in a rotted-out hollow of his favorite tall tree. Henry stayed around until he was about two years of age before he joined a group of wild crows and left his human companion.

My family had the pleasure of the company of a young, fully flighted Blue Jay (another member of the Corvid family) for an entire summer and everything in our home that was dull belonged to us, but everything that was shiny belonged to "BJ." He stashed coins, jewelry, and everything bright enough to catch his eye in places that we continued to discover for years after he left us for a flock of his own kind. The tops of lighting fixtures were a favorite hiding place for his shiny treasures.

When faced with an abundance of food, crows cache the excess in hiding places such as small holes in the ground, in trees, or under debris. Crows will make a deliberate effort to hide food by raking loose material on top of it with their bill, or even by placing an object on top of it. Their memory of the location of cached objects is quite good, and caching behavior serves the crow well by increasing its chances for survival during times when food is scarce.

There is a designation in the ancient lexicon of group names of a "murder" of crows. This is based on folk tales that crows form tribunals to judge and punish the bad behavior of flock members. Supposedly, if the verdict goes against the defendant, that bird is then murdered by the flock. The idea probably originated because occasionally crows will feed on carcasses of dead crows.

Mobbing is one of the most commonly observed behaviors of crows. Mobbing occurs when birds congregate around a potential predator, such as an owl, hawk, human, or cat. The group sounds an aggressive alarm call. Sometimes the mobbing birds will even attempt to strike the intruder. This behavior is particularly intense during nesting season. Mobbing seems to be an attempt to harass the predator out of the immediate area, and also to point out potential predators to young or less experienced birds.

A Real Life Mob Scene

Gabriele Drozdowski who directs an environmental education program in the California public schools of Santa Barbara relates a story that illustrates the mobbing behavior of crows, as well as their amazing feats of memory and recognition. She recently brought a great-horned owl named Max to Adams Elementary school. As Gabriele headed for the door of the assigned classroom with Max the

owl perched upon her arm, the local sentry crow spotted this most hated of crow enemies. Suddenly a murder of crows began dive bombing them with more crows arriving with every passing second. The ruckus was enormous, and school children and teachers began running out of the classrooms to see what was going on. Luckily Gabriele and Max were able to take refuge in the designated classroom without being injured. However, on their way back to the car, there was a repeat of the mobbing which sent Gabriele running for the car with Max holding tight to her arm. Gabriele wisely decided to use a carrier for Max on future visits. The crows had not only dive-bombed her head but they also had deposited their severe misgivings and indignation on her nice, new "school presentation dress" and in her hair.

Intelligence of Parrots and Crows

Crows have a varied and evolved language. They can mimic the sounds made by other animals, and they learn to associate noises with events, especially when the noises and events are associated with food. There are striking similarities between the behavior of members of the Corvidae family and the Psittacidae family. In fact, eight-week old crows can unlock the same complicated cage latches that parrots often master. The life span of crow is shorter than that of parrots so it is likely that they mature earlier than parrots and therefore appear to be more precocious. Young crows can become entertaining pets and learn to perform tricks. Pet crows have been taught to "talk" like parrots and are said to have at least 23 different calls.

The Smart Little Orphan

Richard Hopkins's story of rescuing a crow nestling is typical. The setting of the story of Richard and Chigger is New River, Arizona. Richard speculates that Chigger accidentally fell from the nest due to a predator attack and that his injuries are due to his fall. Chigger was dehydrated and had lost blood possibly from the talon of an owl or hawk. He could barely move when he was found. Chigger evidently had been on the ground for some time. He probably was about four weeks old at the time, and imprinting to humans happens quickly at this age. Richard was easily accepted as young Chigger's substitute parent.

In early September, 2000, Richard commented, "I estimate that Chigger is now about 11 weeks old. He is spoiled rotten and very smart and healthy. He never misses a thing. My wife and I have kept parrots and I think that the intellectual level of crows and parrots is similar, if you factor in age, a crow's IQ may be higher early on. My observations thus far are that a crow is able to solve problems more quickly than a parrot. For example, Chigger figured out by the age of eight weeks exactly how the door latches work, and these are not simple latches. So we had an infant crow figuring out the correct sequence of rolling up a lever, sliding a bar and pushing open the door. After he did this once,

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The Birdcare Company
www.BirdcareCo.com/usa
advice@BirdcareCo.com
Tel: Int+44 1453 835330
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USA distributor: for details of retailers near you
Birds2Grow Aviaries
www.Birds2Grow.com or sales@Birds2Grow.com
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Canadian retailers: Healthy Birds
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he was able to open all three latches within the week. Now it is necessary for us to tie them together. I now can cut the tie wrap and within five minutes he is on my shoulder.”

Richard added, “Crows are very similar to parrots in their need for constant attention, and association with people. They require a lot of time as well as ample space to fly. Chigger sleeps in his big cage, but when we are in what we call our rehab area, he is free to fly everywhere. This room is about 24 x 40 feet and thus he can really get good air speed sometimes. But he loves nothing better than just spending time with us and having fun making a mess. We call Chigger our smart little orphan.”

Crows and Ravens

Many people do not know the difference between crows and ravens. Ravens are about one third larger than crows. They have heavier bills and sometimes they have a mane of feathers around the throat, also called a ruff. These feathers tend to hang loosely under the throat when the bird is at rest which makes them more visible.

Crows and ravens are basically identical in color, body contour, and even behavior patterns. Ravens are most often seen in heavily wooded, mountainous, cold, or desert regions while crows are found in more temperate areas.

Margo Rausch of Southwest Wildlife in San Diego, California, related the story of a strange relationship between a crow and a hawk that she once had the pleasure of observing. “There is one wild crow that hangs around all the time; he was released from my aviary but has not yet joined the wild crows in the area. There also is a Cooper’s Hawk that hangs around my yard where the hawk and the crow have aerial dogfights. The hawk is not large enough to catch the crow nor can he fly as well as the crow. Besides, the crow appears to be far superior in intellect. They go through this game every time the hawk comes by. When the game is over, they will sit on top of the aviary within a few feet of each other as though they are the best of friends. They are not, of course, but they do seem to tolerate each other. I can get within ten feet of this hawk which shows how comfortable it is in the yard. Cooper’s Hawks are *accipiters* which are very flighty and nervous hawks.”

Man Versus Crows

For centuries, man has persecuted the crow because of its taste for corn and other crops. It is true that crows sometimes raid the nests of other birds but their nests are also raided by owls, hawks, and other birds. This is all a part of Mother Nature’s plan, although it might seem cruel to us. Crows have been trapped, poisoned, shot, and bombed during the night as they roosted, but because of their inventive and resourceful nature and their impressive intelligence, they have managed to not only endure and survive, but to expand their range.

Crows have proven themselves to be beneficial to

man by eating insects and other pests that damage crops. In spite of their lack of popularity, the Corvidae family was added to the Migratory Bird Treaty Act in 1972. As a result, today crows may only be hunted according to local laws. Even so, North American hunters still hunt and shoot hundreds of thousands of crows annually. This is unfortunate because *Corvids* remove thousands of pounds of road kills and edible refuse. One biologist claims that a single family of crows can consume more than 40,000 grubs, caterpillars, army worms, and other insects in a single nesting season. Another biologist found that nearly 20 percent of the Eastern crow’s diet is exclusively insect pests.

Crows as Pets

Crows and ravens are migratory birds and therefore are protected by federal law. Unless one has a federal permit, which is difficult to obtain, it is a criminal offense to keep a native crow or raven. Unfortunately, while it is illegal to keep crows native to the U.S. as pets, it is legal to shoot the American Crow and the Black-billed Magpie.

Jonathon Higbee who has made it his mission to help put an end to the killing of crows wants to see the legalization of the keeping of native crow family birds. Jonathon says, “The mass killing of crows in the U.S. and around the world is very abhorrent to me! As I view crow hunting books with photos showing the piles of dead bodies, I am convinced more than ever that we must find a way to stop this evil impulse of ours to kill a bird that our ancestors considered gods!”

Jonathon Higbee also advocates that people check out the many non-native crow family birds that are legally available. For example, hand raised African Pied Crows are available from a few breeders. There also are breeders of Hooded Crows, a subspecies of the European Carrion Crow. Any *Corvid* can legally be imported, bred and kept if it is not included in any of the following documents:

- The US Migratory Bird Treaty Act
- The Endangered Species Act
- The CITES treaty

As we learn more about the wonderfully complex creatures of our world, let us hope to develop more tolerance and understanding. There is much to learn from the bright and resourceful crow. ❖



John Brasaemle

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