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Wild Evergreen: The Unexpected Genius of Corvids – Evergreen Audubon

9-11 minutes



Gray Jay

Written by Rachel Pick for Motherboard, July 7, 2015

Amateur bird photographer Phoo Chan recently captured an incredible moment: a crow landing on the back of a bald eagle and briefly hitching a ride...The fact that a majestic bald eagle could be used as a taxi service by another species is seemingly unbelievable (and the crow was more likely defending its nest than using the eagle for transportation). But the truth is, one of the smartest (and wiliest) extant animal species could be living a lot closer to you than you'd think. The crow, long derided as a pest or portrayed as a gloomy harbinger of death, actually possesses an intelligence that closely mirrors our own.

Crows belong to the family Corvidae, which also includes ravens, magpies, jackdaws, and jays. All corvids display a range of intelligent behaviors that not only surpass that of other birds, but most mammals as well. To the uninitiated, the idea that a bird species could be up there with dolphins and chimps might be pretty surprising, but the evidence is insurmountable.

"They have a theory of mind. They remember what I've done before, and they predict what I'm going to do in the future," says Kevin McGowan, a researcher at the Cornell Lab of Ornithology who has been studying crows for 20 years and has tagged over 2,000 of them to study their reproductive and social behavior.

"They have an intelligence that more closely mirrors that of human intelligence."

Perhaps the best argument for this is crows' well-documented facial recognition ability. Back in 2008, researcher John Marzluff at the University of Washington began to notice that previously trapped members of the local crow population seemed more wary of certain members of his team, making them harder to capture. He wondered if it was possible that the crows actually had the ability to recognize faces, and decided to test his theory using masks. Researchers wearing a mask designated as "dangerous" captured crows, while a control group of researchers wearing a "neutral" mask did not capture them. (The "neutral" mask was Dick Cheney, who is arguably neutral evil, at best.) In the following months, the researchers wore both masks around campus, making no effort to disturb the crows—but the crows remembered. They scolded the researchers wearing the "dangerous" mask, while spotting the neutral mask seemed to have little to no effect. Even with the masks turned upside down, or disguised with a hat, the crows still recognized the face.

I mentioned Marzluff's study to McGowan. "They go way beyond facial recognition," he said. "The ones that live here at the lab of ornithology, that are in the parking lot, they know my walk. They can identify me from behind." The crows have also learned to recognize McGowan's car: "They actually will anticipate where I'm going and go sit by my car when I'm walking to it." (The crows like McGowan, not least because he keeps peanuts for them in his car.)

Crows also have the ability to solve complex problems...Faced with a type of nut too hard for them to crack, crows drop the nuts into pedestrian crosswalks and wait for a car to run over them. Once the way is clear, they drop down and grab their snack. Not only have they figured out how to use cars as excessively giant nutcrackers, but they've figured out how to wait for the light to change to safely time their retrieval.

Crows are also unusual in their social structure. They mate for life, form close-knit communities, and the juveniles sometimes stick around to help raise their younger siblings—just like in a human family. (Okay, like in a functional human family.) The Cornell lab has even documented a case of adoption, when some crows orphaned by West Nile virus were taken in by their avian neighbor. And crows' longer lifespan—some living up to 20 years in the wild—means they can take more time to "grow up," as McGowan says. Crows enjoy an extended adolescence, and just like human teenagers they spend a lot of that time goofing off, showing a particular affinity for punking dogs.



Black-Billed Magpie

But the question is: why corvids? What led them to develop this human-like intelligence, and why do they pay attention to human behavior the way they do?

McGowan says that over generations, crows have been genetically selected to pay attention to human behavior, and he cites our turbulent history with crows as the impetus. "People used to shoot them whenever they could get a chance," he said. "So crows have been paying attention to people for a long time because they use some of our food…but somewhere along the line they've also figured out that it pays to pay attention to individual people—that all people are not created the same. Some are dangerous, some are not."

When we talk about animal intelligence, though, it's important to account for our own human bias. Biology professor Megan Gall at Vassar College told me that from her perspective, "corvids aren't necessarily 'smarter' than other birds...they have an intelligence that more closely mirrors that of human intelligence. In other words, they are good at tasks that we have an easy time identifying with."

It's an interesting thought. We use our own abilities as a yardstick for what "intelligence" means, and that may not be completely fair to other species with highly specialized skills—like echolocation, for example.

But regardless of how we view animal intelligence, it's clear that crows and other members of the Corvid family show some surprising capabilities that could help humans see them in a different light. In a feature on the ornithology lab website, McGowan is hopeful for a change in public perception. "People attribute some sort of malicious intent to what crows do when they're just trying to raise their kids like everybody else," he says. "It's not a bunch of juvenile delinquents coming through and trying to cause trouble."

Colorado Corvids

Our state boasts 10 species of Corvids. Don't let the name fool you. Most of the species are VERY common here and you've probably seen 8 of the 10 many times. Most photos by Marilyn Rhodes.

Commonly seen in the foothills:





American Crow. Photo by Bob Santangelo.

American Crow

- · found throughout the state
- black; 17.5 inches; about 1 pound
- large head; short square tail

"The way a crow

Shook down on me

The dust of snow

From a hemlock tree

Has given my heart A change of mood And saved some part Of a day I had rued."

- Robert Frost



Common Raven

Common Raven

- throughout CO except far eastern plains
- black; 24 inches long; >2 pounds

- rounded tail (wedge-shaped)
- shaggy throat; thick bill

Black-billed Magpie

- found throughout CO
- 19 inches long; very long tail
- white belly, scapulars, and wing patches



Steller's Jay

Steller's Jay

- foothills/mountain forests
- 11.5 inches long
- dark blue all over, pale blue rump
- dark feather crest on head
- black head with white eyebrows

Commonly seen at higher elevations, such as Squaw Pass, Echo Lake





Clark's Nutcracker

Clark's Nutcracker

- In high mountain forests
- 12 inches long
- black and white tail; gray body

Gray Jay

- in high mountain forests
- 11.5 inches long
- very fluffy, loose gray plumage

Commonly seen at Red Rocks:



Western Scrub Jay

Western Scrub Jay

- throughout CO except extreme Northeast
- 11.5 inches long
- gray-blue back, faint blue breastband
- grayish underparts
- no feather crest on head

Commonly seen in greater metro Denver, including Lakewood, Wheat Ridge:



Blue Jay

Blue Jay

- urban and riparian areas mostly along front range
- 11 inches long
- · blue upperside, lighter gray breast
- · feather crest on head
- black collar

Photo by Bob Santangelo

Most commonly seen in southern Colorado:

Pinyon Jay

- usually near pines in the foothills
- 10.5 inches long, southwestern Colorado
- · dusty blue all over, brighter blue face
- no feather crest on head

Chihuahuan Raven

- southeastern Colorado, 18-21 inches long
- large all-black bird, shape of a raven, slightly larger than a crow
- tail pointed in middle.

 large black bill, shorter and smaller than raven, longer nasal bristles

white bases to the body feathers

Short-eared Owls redux

On May 7th, Else Van Erp offered a follow-up comment to last month's Wild Evergreen column on owls. "I just have a comment on the Short- eared Owls. When I first moved to Hangen Ranch we had an owl that always sat on a post at the little lake. I didn't pay much attention to it then being rather short on time raising three teenagers. I called Bill and Sylvia when a second owl showed up. Turned out they were short ears. A few months later I was coming home late and happened to drive past the lake and had 9 owls on the fence posts there. I don't know if any ever came there again after we moved but then you never know."

I've never seen a Short-eared Owl in the foothills but I'm going to make it a point to look for them now. HawkQuest had a rescued Short-eared Owl on display at the Earth Day Fair at the Lake House in April. I hope you got to see it so that you'll recognize it should you be fortunate enough to see one in the foothills.