

CENTRAL IDEA? - TAKE A GUESS just by looking at the title.

Directions
308017P

Read this article. Then answer questions XX through XX.

CIRCLE UNFAMILIAR WORDS &

Brain Birds: Amazing Crows and Ravens

GUESS AT THEIR MEANING.

PAY ATTENTION TO ITALICS by Terry Krautwurst

No matter where you live, they're your neighbors. You might want to watch them—carefully.

Let me introduce you to the Corvid family. Like all families, they have their faults. But I think you'll like them anyway, once you get to know them. They're sociable—if a bit loud, especially at gatherings. They're smart and perceptive—though some might say cunning and *deceptive*. And they're exceedingly resourceful—come to think of it, you might keep a close eye on your possessions. They've been known to steal—food, trinkets, baby animals.



Don't worry. I'm speaking not of any human family, but of the bird family Corvidae, and particularly the crows and ravens in the clan *Corvus*. Like most members of that genus—which in North America also includes magpies, nutcrackers and jays—crows and ravens are sturdy, stout-beaked, long-legged birds with powerful wings. They also have something of an attitude, which can vary from aloof to in-your-face.

You can forgive them for their superior airs¹ though, when you consider their resumes. Crows and ravens are the stuff of legend; for centuries, they have been revered and reviled, fawned over and feared by humans. Shakespeare wrote them into his plays, Thoreau into his musings², Poe into his horror tales. Shrines have been built to them; songs sung; chants chanted. Oh—and one more thing: Crows and ravens are the eggheads of the bird world and thus the darlings of avian science. With the arguable exception of parrots, they're the smartest winged species on the planet. They've even outperformed monkeys in some psychological tests. Truth be told, they've outsmarted many a human, too.

¹superior airs: showing an attitude of self-importance or overconfidence
²musings: thoughts

FOOTNOTES ARE IMPORTANT

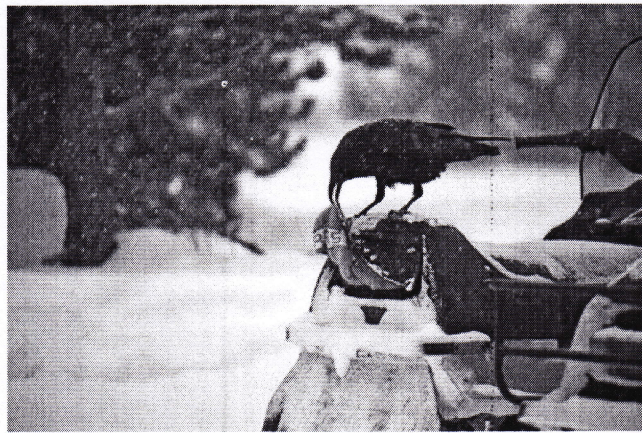
THEY'RE EVERYWHERE

SECTION HEADINGS - Use them to guess at the main idea of this section

Some 40-plus species of crows and ravens inhabit the skies worldwide over virtually every terrain, from desert to tropics to tundra. In the contiguous United States, the American crow (*Corvus brachyrhynchos*) is easily the most common. Three other crows claim American territory: The slightly smaller fish crow (*C. ossifragus*) ranges along the East Coast and through the Gulf States east of Texas; the Northwestern crow (*C. caurinus*) occupies the Pacific Seacoast from upper British Columbia to the northwestern tip of Washington; and the Mexican or Tamaulipas crow (*C. imparatus*) calls southernmost Texas its home.

Geographically, the crow's larger cousin, the common raven (*C. corax*), is more broadly distributed. Its overall range encompasses almost all of Canada and Alaska; most of the western United States; and New England and the Appalachian mountains. In reality, though, the common raven is less common across its range as a whole, except in higher elevations. Like hawks and eagles, ravens prefer high places from which to search for food.

Although crows and ravens apparently have no trouble telling one another apart, humans have a harder time discerning the distinctions. Size would seem to matter, since an average raven is far larger (2 to 4 pounds, with a wingspan up to 4 feet) than a correspondingly average crow (1 to 1½ pounds, with a wingspan up to 3 feet). But if you judge strictly by size, you can easily mistake a small raven for a large crow or vice versa.



A raven steals a ski cap. - CAPTION

Finally, listen to the bird's calls. The crow's trademark *caw caw* doesn't remotely resemble the raven's characteristic utterance, a deep guttural *crroak* or *naaaaahk*.

SPEAKING OF INTELLIGENCE

That crows and ravens are classified as songbirds may come as a surprise, but it is the presence of a voice box, or syrinx, rather than talent for melody that qualifies them. They use their vocal equipment to communicate with a large vocabulary of expressive calls for courting, gathering, warning and more. Ornithologists³ have identified as many as 24 crow calls and up to 64 distinct raven vocalizations.

But it's brainpower, not bravado vocals, that really sets crows and ravens apart from other animals. They have the largest cerebral hemispheres, relative to body size, of any birds—the raven's brain is the same size in relation to its body as a chimpanzee's. More

³Ornithologists: scientists who study birds

ANSWER

significantly, crows and ravens apply their brainpower; they learn quickly, solve problems and store knowledge in long-term memories.

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Furthermore, crows and ravens understand cause and effect. In the South Pacific, New Caledonian crows sculpt twigs into hooked probes that they use to pry out otherwise inaccessible grubs—they make their own “crowbars.” The same crows nip the edges of rigid leaves to create sawlike teeth, then shove barbed tools beneath leaf litter to spear prey. They also carry their tools with them on foraging⁴ expeditions, and store them for later use.

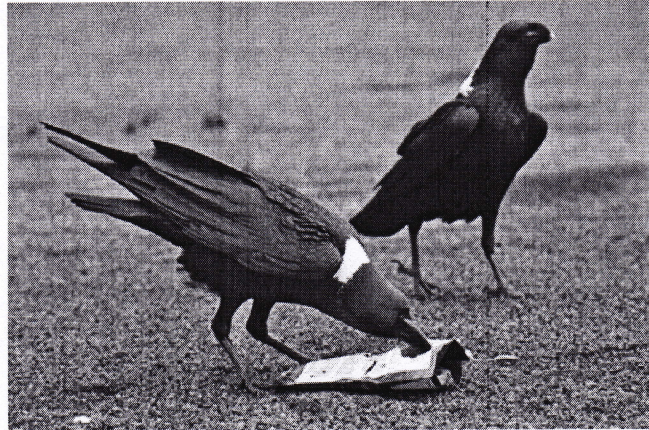
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Stories abound of crows or ravens dropping nuts or clam shells onto highways and other hard surfaces to break them open. In Japan, crows are reported to have taken the strategy a step further by placing nuts in front of the tires of cars stopped at red lights.

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Scientific research confirms much of the anecdotal⁵ evidence. In one study of captive birds, scientist Bernd Heinrich dangled bits of meat from the

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end of a 2-foot-long string tied to a perch. He then watched his test subjects—first a pair of American crows, and later five common ravens—attempt to bring home the bacon (in this case, it was actually salami). The crows tried flying at the food, then tugged at the string a few times, but gave up within 15 minutes. Time to study the situation didn't help; after 30 days, they still hadn't solved the problem. The ravens spent a few hours glancing at the puzzle, as if weighing the possibilities. Then one bird flew to the perch, hoisted a length of string up with its beak, stepped on the loop, pulled up another length, stepped on that loop, and so on until it had reeled in the food. Ultimately, three more ravens also solved the problem. Two improved on the technique by simply grabbing the string and side-stepping along the perch.

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None of this would surprise ice fishermen in Finland, where hooded crows use the same pull-step-pull-step method to haul in fish on abandoned baited lines.

⁴foraging: wandering around to search for food

⁵anecdotal: something that is based on a personal account of an incident

LINE #'S HELP YOU REFER BACK TO THE TEXT.

HOW LONG SHOULD YOUR ANSWER BE?

BE?

Explain how crows and ravens use their intelligence to help them find, capture, and eat food in the article "Brain Birds: Amazing Crows and Ravens." Use **two** details from the article to support your answer.

THIS LONG!

Restate Question

Answer

Support

Support

Conclude

Directions

308018P

Read this article. Then answer questions XX through XX.

A Soft Spot for Crows

- Guess at the central idea

by David Shaw

Crows are probably the most ignored bird species in North America. They are often viewed as pests, or at the very least as untrustworthy. Even the term for a group of crows, a “murder,” hardly creates positive associations. Yet these birds are everywhere. They are as common, and perhaps as despised, as pigeons. But there’s a lot more to the crow family than most people think.

It Runs in the Family

- Use section heading to guess at the main idea of this section

The United States has four resident species of crows. The most abundant and widespread is the American crow, which lives across most of the lower 48 and southern Canada.

The slightly smaller northwestern crow has a nasal voice and occurs only along the coasts of the Pacific Northwest from Puget Sound to south central Alaska.

The fish crow is similar in size and voice to the northwestern crow but lives on the Atlantic coast and in the lower Mississippi River region.

And finally there is the Hawaiian crow, which, as the name implies, occurs only in Hawaii, and there only in a small area of forest. (A fifth species, the tamaulipas, dwells in northern Mexico and is sometimes seen in Texas’ lower Rio Grande valley. But it doesn’t appear to breed north of the border, so it’s not considered a true U.S. resident.)

I don’t remember my first sighting of a crow, though I suspect I was very young. Even after I’d developed as a birder, I’m still not sure when I first put that tick on my list. Strange, because for almost every other species I’ve seen, I can remember where I was, what the weather was like and who was with me. The crow? Nothing. Despite its abundance—or, more likely, because of it—I overlooked the crow, just as most people do.

During the 19th and early 20th centuries, crows were mercilessly pursued. Killed as farm pests, they declined and quickly became wary of people. But rather than flee to remote parts of the country as most hunted species did, crows found safety in cities and towns.

It seems odd, but this is a perfect example of the species’ discerning intelligence. Humans, they learned, will not shoot guns in a city. And food? Well, it’s everywhere! Garbage bins, dumps, picnic areas, parks and backyards were all-you-can-eat buffets to the newly arrived crows. They thrived, and continue to thrive, in our most populous areas.

1st person unusual P.O.V for informational article

QUESTION

SUPPORT

- QUESTION

Secret Intelligence

30 Now I have a greater appreciation
for crows than ever, even though I live
in one of the few parts of the country
where there are no crows at all! Here in
interior Alaska, crows are replaced
35 entirely by their larger cousins, ravens.
So crows are a novelty to me. When I
travel to southern Alaska or to the lower
48, I look forward to watching them.
Their antics are remarkable. Much like
40 puppies, or even people, they are
constantly at play—tussling in the air,
feigning attacks and learning as they do.



In recent studies of northwestern crows, researchers from the University of
Washington have determined that the species is capable not just of recognizing humans
45 individually, but also of teaching their offspring which humans are dangerous.

The study went something like this. A biologist wearing a distinctive mask provided
an unpleasant experience to adult crows by capturing, banding, and measuring them.
Later, when the masked researcher walked below the nest, the banded adults gave alarm
calls and dive-bombed the human.

50 The chicks, while never experiencing the negative associations for themselves, carried
the fear and aggression toward the masked human—but not other humans—into their
own adulthood. In short, they were taught to beware not of humans in general, but of one
human in particular.

A Different Point of View

This study, while fascinating, is only one example of how crows are capable of
55 reasoning and solving problems in their environment. When I moved to Olympia,
Washington, to attend college, I was intrigued by the many shells of clams and mussels
along the roadsides and sidewalks of town. I couldn't for the life of me figure out how they
had gotten from the beach, a few hundred yards away, to the pavement in such large
numbers.

60 Then, one day, birding¹ along the Olympia waterfront, I paused to watch a pair of
crows foraging² on the gravel beach. They were probing around the rocks with their long
black bills when one popped up holding a small mussel. The bird flew into the misty air
and passed over my head toward a nearby parking lot.

¹birding: birdwatching

²foraging: wandering around to search for food

*The author has a different perspective
OR CROWS have a different perspective*

65 Through my binoculars I watched as
the crow hovered 20 feet above the
pavement and let go of the mussel. It fell
onto the concrete and shattered. The crow
settled to the ground and pulled the tasty
morsel from inside the broken shell. A
70 moment later the bird was back on the
beach searching for more, and my
mystery was solved.

75 This kind of discovery makes birding
in our own backyards—and city streets—
fascinating. Even with our most common
and unappreciated species, there are
things to learn.

80 The crow is much more than a noisy
pest. Catch one perched in the sunlight,
and its feather will glitter with an
iridescent sheen. Then watch as it inspects
the world through dark, intelligent eyes.
There's more going on behind those eyes
than you might suspect. Observe for a few
85 moments, or hours, and you're sure to
learn something. So, too, will the crow.

Interesting Facts about Crows

- Crows are a prominent part of the 1963 Alfred Hitchcock movie *The Birds*. Animal trainer Ray Berwick used several crows in the film, in part because the birds were easy to train.
- Jays and mockingbirds are not the only mimics in the birding world. Crows can mimic several animal sounds.
- Some scientific studies have indicated that crows know how to count.
- Though they are related, crows and ravens are different birds. They look alike, but on average, ravens are several inches longer.
- Crows can always be picked out by their familiar *caw-caw*.
- Crows are very social birds and will congregate in large numbers to sleep. It's common to find roosts with several hundred crows, or even thousands.
- As omnivorous birds, crows will consume almost anything edible. The oldest recorded wild American crow was 16, and a captive one in New York lived to be 59.

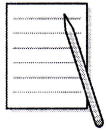
UNDERLINE KEY WORDS IN QUESTION

In "Brain Birds" and "A Soft Spot for Crows," are the authors' attitudes toward crows and ravens positive or negative? How do the authors convey their views? Use examples from both articles to support your response.

In your response, be sure to

- identify the authors' attitudes toward crows and ravens
- explain how **each** author supports his views
- use examples from **both** articles to support your response

facts, statistics, scientific experiments, stories, personal experience, comparisons, examples. observation & description



Check your writing for correct spelling, grammar, capitalization, and punctuation.

BEFORE WRITING, YOU MUST BRAINSTORM on a separate sheet. DECIDE the # of BODY PARAGRAPHS

INTRO = mention titles & authors of both articles. ANSWER THE QUESTION by choosing positive or negative

BODY PARAGRAPHS = TOPIC SENTENCE — (The author) supports his (positive/negative) attitude by using (choose some methods)