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The 30 Most Intelligent Animals

Ranging from huge to tiny, some of the smartest animals fly under the radar.

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Nonhuman animals are constantly proving themselves to be capable of thought, empathy and intelligence in ways we never expected. Our increasing understanding of the minds of animals continues to fascinate. What's becoming more and more obvious is that there aren't just a few highly intelligent animals, but rather a vast number, all of whom demonstrate their intelligence in unique ways.

Here are 30 of some of the most intelligent animals in the world, and how they prove their smarts.

1) Humans

We tend to judge other animals against our own species' intelligence. Though we are beginning to realize that animals express their intelligence in unique ways, most research seeks to establish their thinking by comparing it to benchmarks we're familiar with: our own.

The main markers of human intelligence are the abilities to learn from experience, use knowledge to manipulate surroundings, adapt to new situations, and understand and handle abstract concepts. These broad areas represent a vast array of skills and abilities, such as the capabilities to learn, remember, memorize, reason, perceive and solve problems. As a species, we excel in all of these areas and, as a result, we expect other species that we deem intelligent to excel in them too.

2) Dolphins

Dolphins are one of the most intelligent species on the planet; they are highly capable of both learning and mimicry.

Dolphins in different pods use mud to create traps and use sponges for protection against coral as they search for food, demonstrating their ability to use tools and manipulate their surroundings. Dolphin pods are known to alter their hunting location and timing to adapt to or avoid new human activities, like construction.



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3) Ravens

Ravens are extremely intelligent birds, and, in part because of it, they are associated with omens in many cultures.

Ravens have better planning skills than human toddlers. One study revealed that they could select a key from an array of objects that could be used to open a special box with a treat inside. They could find the correct key 90 percent of the time — and patiently wait a whopping 17 hours for the opportunity to use it to get a treat.

4) Pigs

Pigs are the classic example of an animal that surprises many people with their intelligence.

Pigs are so smart that they can play simple video games, as proven by four pigs at Purdue University's Center for Animal Welfare Research. The game consisted of using a joystick to manipulate a dot that hit a wall. After hitting the wall, the pigs received a treat. All four pigs displayed skill far greater than would be expected by random chance. In order to play the game, the pigs had to understand that moving the joystick resulted in movement on the screen.

5) Chimpanzees

Chimpanzees have been subjected to countless hours of research with the goal of better understanding their cognition. The result is that we can confidently say that chimps are one of the most intelligent species on earth. Humans share 99 percent of our DNA with chimps, so this should come as no surprise.

Chimps can recognize themselves in mirrors, a key component to abstract thinking. More than that, they are able to recognize themselves on video, a skill humans don't get until around four years old.

6) Elephants

The expression "an elephant never forgets" exists for a reason: these giant creatures are extremely intelligent. Elephants can recall specific migration routes, and where to find water along the way. They can also differentiate between different groups of predators (including different groups of people) based on the way they smell and sound.

On a number of occasions, elephants have been known to manipulate their surroundings to achieve their goal. For example, Kandula, an elephant housed at the National Zoo in Washington D.C. used a block as a stepping stool to get to fruit outside his reach.



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For years, researchers failed to recognize elephants' skill in manipulating their surroundings, and their ability to use tools — because of human assumptions about what constitutes intelligence.

They didn't consider that elephants depend on their senses of smell and touch far more heavily than humans or apes when interacting with their surroundings. As a result, they offered elephants sticks to use as tools, which elephants can only hold with their trunks, dampening their ability to touch and smell the world around them.

Now, elephants are regarded as one of the most intelligent non-human animals.

7) African Gray Parrots

African Gray Parrots are thought to be one of the most intelligent species on the planet, rivaling even apes. In some areas, they surpass the abilities of five-year-old children.

African Gray Parrots can use deductive reasoning to solve problems, specifically determining which of two cups contains a food reward. More advanced versions of the same test revealed the parrots' ability for logical thinking. In one such experiment, Griffin, the test subject, outperformed five-year-old children when it came to understanding concepts of certainty versus possibility.

8) Octopuses

Octopuses are skilled escape artists, with some even escaping their enclosures and swimming all the way back to the wild. Their jailbreaking is less surprising in light of the fact that they have a larger brain-to-body ratio than any other known invertebrate species.

Octopuses are adept at using tools sourced from their surroundings. Some species are known to carry the tentacles of the deadly jellyfish Portuguese man o' war as a weapon, while others collect and carry coconut shells to build shelters for themselves.

9) Bonobos

With a reputation as the hippies of the animal kingdom, bonobos are one of only a few species that live in matriarchal societies. They are also a very intelligent species closely related to humans, and are known to show empathy even towards strangers.



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In experiments, bonobos will perform a task that results in another bonobo getting a treat. When there's no other ape present, they are less likely to carry out the task, suggesting that, at least in part, they are motivated by helping the other ape.

10) Rats

The intelligence of rats is one reason they are so often used for research. Rats' ability to learn from experience has been harnessed by numerous experiments testing their cognition and reasoning abilities. One such test is the forced swim test, which has come under fire for being inhumane. Rats are capable of learning and recalling what the test consists of, meaning new rats — who have never been exposed to the test before — have to be used for each retest. .

11) Pigeons

Frequently regarded as the rats of the sky, pigeons are often thought of as a nuisance. The reality, however, is that pigeons are extremely intelligent.

In an experiment, pigeons were trained to differentiate between Picasso and Monet paintings, something they had no problem learning. They were then able to apply what they learned to distinguish between works they had not previously been shown, telling the difference between other expressionist and cubist artists.

12) Crows

Phenomenally intelligent birds, crows are well known for their love of shiny objects. But their talents don't end with the collection of pretty knick-knacks. They are capable of a form of higher thought previously thought to belong solely to humans and a select few other mammals.

By looking in-depth at their neuroanatomy, recent research suggests that crows are aware of the knowledge that they have — and are able to ponder that knowledge. This ability is how individuals make new discoveries.

13) Dogs

Dog intelligence is impacted by breed. Of all breeds, Border Collies consistently come out on top in terms of intelligence. Border collies proved more capable than even Labrador Retrievers at social cognition, inhibition control and spatial problem-solving.



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14) Cats

Though research into cat intelligence is relatively sparce —- in large part because cats generally don't make very willing participants — what we do know is that cats excel in a variety of areas. The one we know the most about is how they perceive the world. While perception may not be tied directly to cognition in most of the research that's been done, understanding how cats experience the world sets us up to better study their intelligence.

For example, we know cats depend heavily on smell, so when researchers are evaluating the bond a cat has with people, or how cats interact with each other, it's important that smell is included as a metric. The research done on cats establishes that they have the ability to differentiate between different people and tell the difference between different quantities of objects.

15) Horses

Often overlooked when it comes to intelligence, horses communicate with people differently based on the information they believe the person has. This tendency suggests that horses are not only capable of advanced cognition but also flexible cognition.

16) Squirrels

One way that squirrels display their intelligence is through deception. When they think they're being watched, they'll pretend to bury nuts and seeds while hiding the actual food under their arms.

17) Bees

Many people know bees are crucial components to a healthy environment — but you might not be aware they're also highly intelligent.

"Bees are self-aware, they're sentient, and they possibly have a primitive form of consciousness. They solve problems and can think. Bees may even have a primitive form of subjective experiences," bee intelligence researcher Stephen Buchmann told the Guardian.

18) Ants

Ants are the original computer systems. Instead of thinking as individuals, they think as an entire network in collaboration with their queen and thousands of sisters. As a colony, they set up predetermined ways of doing things, like algorithms on a computer — and then they do them, supporting not just their individual survival, but that of their entire colony.



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19) Orcas

Orca intelligence is evident from their ability to learn, use echolocation, their large brain size and complex emotions. Different pods of orcas even have different dialects of language.

Recently, orcas have been making headlines for their potential ability to organize, as demonstrated by one pod's behavior toward boats off the coast of Spain.

20) Wolves

Wolves exist in packs of several individuals who work together to ensure the survival of the group. This behavior alone, aptly called wolf pack intelligence, speaks to the intelligence of wolves.

21) Deer

Despite receiving little attention, deer are intelligent. Differentiating between the calls of different deer, risk assessment, behavior modification and personality are all markers of their smarts.

22) Llamas

Llamas are highly intelligent beings capable of learning and using insight to make decisions. When exposed to a mirror in one experiment, llamas were able to use it to find a bucket of food placed otherwise out of their sight.

23) Koalas

Koala's are well-loved for their adorable looks, but they also do well in the intelligence category. They seem to be able to predict what will happen in a particular situation based upon past experiences. One of the main ways this plays out is in their interactions with humans. Instead of swimming across bodies of water — which they're fully capable of doing — they have learned they can simply hitch a ride on passing boats.

24) Orangutans

While orangutans may not use as many tools as some other apes in the wild that changes substantially with captive or ex-captive orangutans. In captivity, the apes will use everything from sticks to man-made tools.

Scientists believe this discrepancy may be due to wild groups simply not passing the skills from one generation to the next. When in captivity, orangutans are forced to figure out how to survive on their own while more isolated, leading to more inventive solutions to problems.



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25) Gorillas

Koko was perhaps the world's most famous ape. She knew more than 1,000 hand signs and 2,000 spoken words, allowing her to communicate with the people around her, and demonstrating the considerable intelligence of gorillas.

Gorillas are so smart that they may actually be more intelligent than our human ancestors. Researchers evaluated blood flow and found that our ancestors from 3 million years ago had less blood going to their brains than today's gorillas. The findings challenge previous assumptions that human ancestors were more intelligent based simply on brain size.

26) Hyenas

Unlike other predators, hyenas' social groups tend to be quite large —sometimes in excess of 100 individuals. Every individual knows one another and can differentiate between the calls of different members. More than that, they can also recall each hyena's rank on the social ladder, helping them avoid any unpleasant run-ins with authority.

27) Raccoons

Just like humans, raccoons have different IQs. Researchers have found that some raccoons are capable of solving more complex puzzles than others, and have a greater number of glial cells (cells that support stronger brain function).

Einstein had a greater number of glial cells than men of average intelligence. So basically, somewhere, a raccoon-Einstein exists.

28) Honey Badgers

Honey badgers are extremely curious animals. They are experts at getting into places they shouldn't, and making off with what they want. One badger in captivity, Stoffel, would use anything he could to construct a ladder to get out of his enclosure.

Though most of what we know about honey badger intelligence comes from anecdotal evidence, there has been some research done that indicates they're excellent puzzle-solvers. As they're solving puzzles to get their favorite treats, they're also demonstrating their ability to overcome problems.

29) Giraffes

Giraffes have already demonstrated their ability to discriminate between different quantities and have complex social systems — but just recently, they broke another barrier. They are the first animal with a relatively small brain-to-body-size ratio to demonstrate statistical reasoning in a research setting. In



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tests, giraffes were able to consistently infer the likelihood they would receive a favorite treat (a carrot) over a less enjoyed snack (a zucchini).

30) Portia Spiders

The Portia spider faces an interesting problem: they like to eat other spiders. In order to capture their unsuspecting victims, they have had to do some serious problem solving. To catch their preferred prey, Portia spiders need to be able to plan ahead and recall information based on the best escape and trap routes.

About the Author

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Grace covers farming and agricultural policy. Her reporting has been published in Truthdig and the Good Men Project. She holds her MS in Animals and Public Policy from Tufts University.

The Bottom Line

Researchers are constantly being surprised by the intelligence of nonhuman animals. The realization of how intelligent and capable nonhuman species are challenges the way we treat and interact with animals in our daily lives.

These discoveries inevitably pose the question of whether an animal which is as capable as a human toddler should spend their life locked in a cage as someone's pet or research subject — let alone be served as dinner. Given the evidence, challenging the way that we think about nonhuman animals and the role they play in the world is an essential next step.

A Darwinian Perspective

The above findings are not inconsistent with the survival of the fittest concept attributed to Charles Darwin. All living creatures need to consume other creatures in order to avoid starvation. It follows that all living creatures need to develop skills that will allow them to obtain food and at the same time avoid becoming food for other competing creatures.

Note: The **hierarchical theory of intelligence** postulates that the abilities constituting intelligence are arranged in a series of levels (of a hierarchy) ranging from general to specific. The levels of intelligence are:

data, information, knowledge, understanding, and wisdom.

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