

# FOCUS

# Wild Arizona

## Key Words:

**Canine:** the group of animals that includes dogs, coyotes, foxes and wolves

**Carnivore:** an animal that eats meat

**Extinct:** no longer in existence; a species with no living representatives

**Feline:** the group of animals that includes cats and lions

**Herbivore:** an animal that eats plants

**Omnivore:** an animal that eats plants and animals

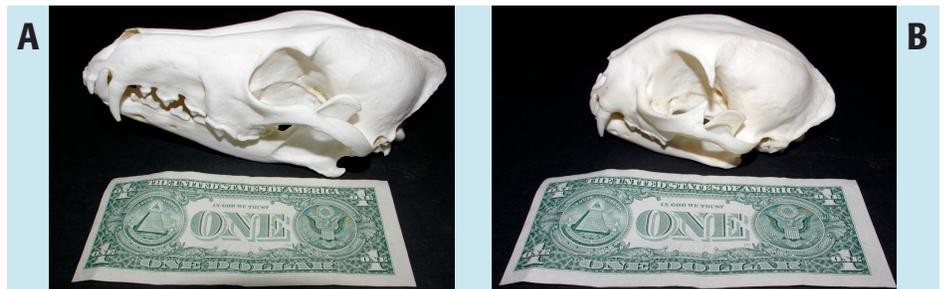
**Paleontologist:** a person who studies dinosaurs and other extinct animals by using fossils and bones

Even though dinosaurs have been **extinct** for millions of years, we know so much about them. We know what they ate, where they lived, how big they were. And we learned all of this without ever having seen one alive.

So how did we do it? How can a **paleontologist** look at the remains of dinosaurs, particularly bones, and learn all this information? To help us answer this question, let's take a look at some animals that are still alive — animals we know quite a bit about — and see what we can learn from their bones.

Here are skulls from two common Arizona animals. One is a **feline**, the other is a **canine**. Can you figure out which is which just by looking at the

skulls? As you look, try to find clues in the skulls themselves. Pretend skin and fur cover the skull. Which one looks more like a dog? Which looks more like a cat? We have placed a dollar bill next to the skull so you can get a rough idea of how big the skull is.



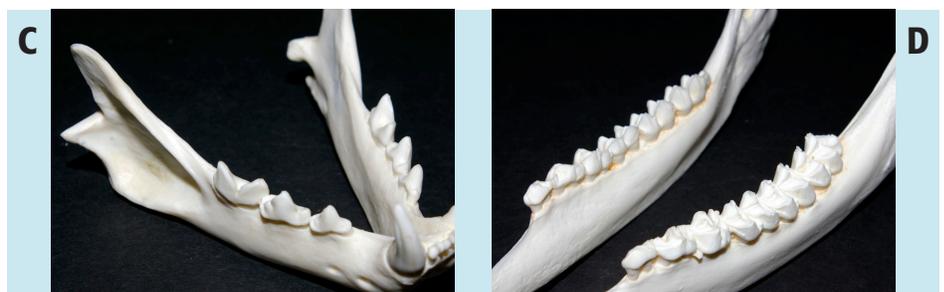
Did you figure it out? Let's see how well you did.

**Skull A** belongs to a coyote, a common species of canine, or dog. Notice how long the skull is because its nose is stretched out. This is common of most dogs. The large nose indicates that this animal relies more on its sense of smell than on some of its other senses. Have you watched a dog recently? It spends a lot of time smelling the world around it, doesn't it?

Compare that to **Skull B**. Notice it is much more round, with a very short nose. This belongs to a bobcat. Felines, or cats, tend to have rounder faces. Although they can smell, it is not their primary sense. Which sense is the most important for cats? Notice the large area on the skull where eyes would be located. Cats have big eyes, giving them better eyesight. Vision is their main sense.

So, just by looking at a skull, we can tell which sense an animal is more likely to rely on. But, a skull can tell us so much more. By looking at the teeth, we get clues as to what an animal might eat.

**Skull C** is the bottom jaw of the same bobcat from B. Do you know what bobcats eat?





## By Eric Proctor

Bobcats are **carnivores**, which means they eat meat, including mice and rabbits. The sharp teeth along the jaw help them tear and shred the tough meat. Most animals are not capable of holding a fork and knife to cut their food. Their teeth must do the work instead.

**Herbivores** are animals that eat plants. **Skull D** is the lower jaw from a white-tailed deer. What differences do you notice about the teeth of this herbivore when compared to those of the carnivore?

You probably counted many more teeth. If you looked even closer, you might have noticed the teeth are much flatter, as well. The numerous flat teeth provide an excellent surface for chewing leaves and other plant materials. When the mouth is closed, the upper and lower teeth come together. When the deer chews, plants are ground into small pieces.

**Omnivores** can eat both plants and animals. Based on what you have learned, what do you think the teeth of an omnivore might look like?



### Do the Science:

As you see, a skull can tell us a lot about an animal. Paleontologists use this information to help determine what dinosaurs looked like and how they lived.

Pretend you were hiking and you saw **Skull E**. Using the skills you just learned, describe this animal. How big is it compared to the other animals we have discussed? What do you think it might eat? Try to figure out what living Arizona wildlife species it might be. The answer is provided to the left. 🦋

▪ This feature is part of the Arizona Game and Fish Department's Focus Wild Arizona program, a free educational program for teachers, parents, students or anyone interested in learning about wildlife and habitat. Visit our Web site, [www.azgfd.gov/focuswild](http://www.azgfd.gov/focuswild), to find exciting lessons and resources.

**Answer: Black bear: omnivore.**

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