

Wild Kids

Citizen Science

In our previous issue, we discussed how important citizen science is, and how kids just like you can get involved.

Citizen scientists' eyes and ears help us collect information that informs scientists who study wolves. For example, mange is a disease that can hurt wolf populations, and can even hurt our pet dogs. Our dogs can get veterinary care, so mange isn't such a big problem for them. But wild wolves don't have this luxury. Photographers in Yellowstone National Park act as citizen

scientists by submitting their wolf photos to scientists who analyze them for evidence of mange. This puts scientists "ahead of the curve" if a mange outbreak is likely and provides clues on possible reasons for the outbreak. Also, because photos capture amazing detail, researchers can use them to identify the same wolf in different locations. This helps scientists track wolves without having to fit them with radio collars.

Some citizen scientists go through collections of recorded wolf communications, including vocalizations (like howling) and body language, and put them in categories of behavior according to meaning. Their discoveries can help researchers narrow down wolf communication patterns, and helps explain their social behavior.

Practice your science and observation skills by identifying behaviors in all the wolf photos in this magazine.

Happy researching!

How many wolf behaviors can you identify in this picture of ambassador wolf Axel interacting with pack mate Boltz?



Leanne Martin

Vocabulary

Rendezvous Site

A rendezvous (pronounced "ron-deh-voo") site is an important in-between step—a safe area for pups born in the spring who are old enough to leave the den, but too young to safely hunt with the pack. The pups will stay close to this area, continuing to grow and develop until they are able to hunt full time with the pack—usually by winter.

These photos, taken August 2016, show ambassador pack pups Axel and Grayson at the age when (in the wild) they would still be at a rendezvous site. (Photo credit: Andrew Broz)



Leanne Martin



Leanne Martin



National Park Service

Meet the Canines

You may love canines, but do you know which species is which? Let's find out! Read about these canine species, study the pictures, and then see whether you can identify the animals in photos 7-12.



Don Gossett

Gray wolf: Long legs, broad face and muzzle, usually weighing 50-135 lbs.



A.K. Kerber

Coyote: Narrow muzzle, large ears relative to body size, smaller stature, usually not larger than 30-40 lbs.



National Park Service

Gray fox: Very small body, long tail with distinct black stripe, speckled salt-and-pepper coat. Tan on underside and behind ears.



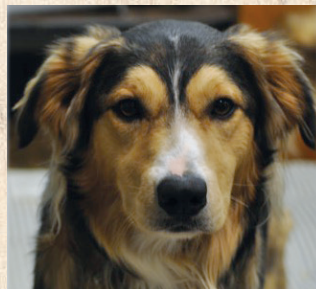
National Park Service

Red fox: Small body with large, fluffy tail. Usually a red coat can be other colors, as well. Always has a white tip on the tail.



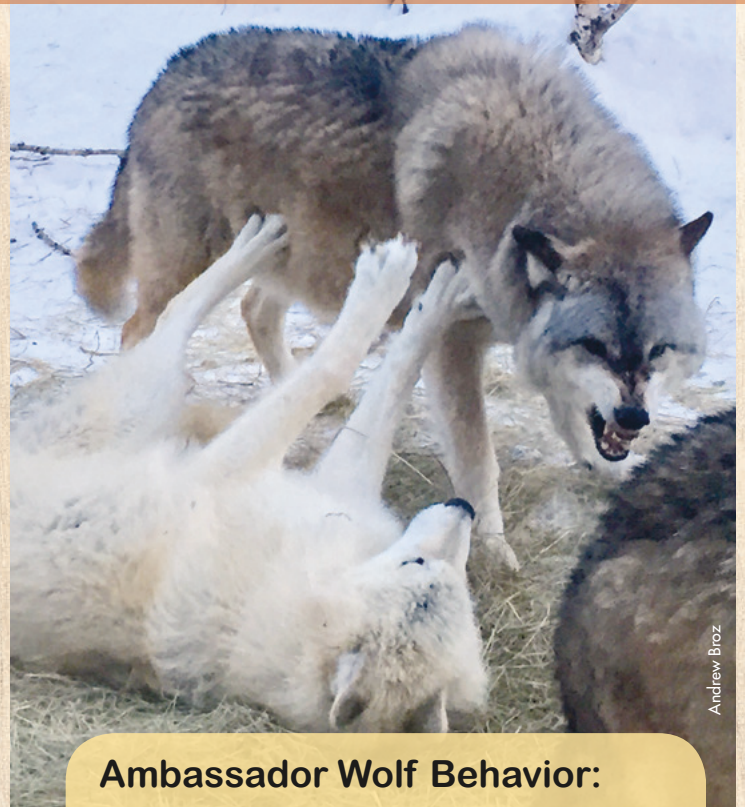
B. Crawford

Red wolf: Only wild range is in NE North Carolina. Smaller than a gray wolf, but larger than a coyote. Muzzle is broad, ears are large, legs are long. Can weigh 40-70 lbs.



International Wolf Center

Dog: Most dog breeds can be easily distinguished from wild canines. Some can appear similar to wolves or coyotes, but usually can be distinguished by behavior—or by proximity to humans. Dogs usually have a broader chest than wolves.



Andrew Broz

Ambassador Wolf Behavior: "Obnoxious" Submission

Lower-ranking wolves approach and greet higher-ranking wolves in a constant—and "annoying"—manner by whining, licking the muzzle and pawing at the higher-ranking wolf's face. The higher-ranking wolf may engage the lower-ranking wolf in a dominance display. Biting the muzzle of the lower-ranking wolf is a typical and common example. Wolf biologists interpret "obnoxious" submission behavior as an attempt to reinforce bonds within the pack. Wolves rely on their social bonds because they need to cooperate when taking down prey that can be 10 times their size.

Here, Axel demonstrates "obnoxious" submission by pawing at Aidan, the pack's dominant male. Aidan is showing his teeth with his ears pinned back, indicating he is not very tolerant of Axel's behavior. ■

Now, Guess The Canines!



Cameron Feaster

2.



National Park Service

3.



National Park Service

4.



U.S. Fish and Wildlife Service/
Steve Hillebrand

5.



U.S. Fish and Wildlife Service

6.

Answer Key: 1. Coyote 2. Dog 3. Gray wolf 4. Red fox 5. Red fox 6. Gray wolf