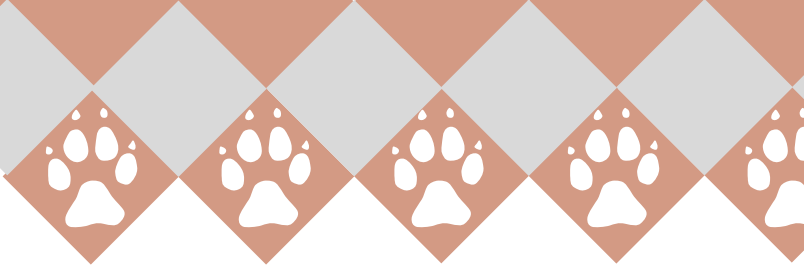


Wild Kids



Wolf Research: So Many Ways to Learn About Wolves

by Erin Albers, International Wolf Center Intern

Anyone can pick up a book and learn about wolves. But how did biologists discover this information in the first place? In this article we will learn about the different tools and methods researchers use to learn about wolves.

One of the most valuable tools biologists use is interpreting the different tracks and signs made by wolves. Analyzing tracks and their patterns is like reading a story. From looking at tracks, researchers are able to determine whether the wolf was walking, trotting, running or even hunting. This is particularly important for biologists investigating wolf behavior. For instance, from tracks researchers may be able to determine how often wolves hunt prey and how far the chase lasts.

Another tool used by many researchers involves examining scent marks. What are “scent marks,” you ask? Well, you have probably already guessed, but scent marks are places where wolves have urinated or left scats. Although it may seem like an unpleasant task, examining scent marks can provide researchers with a variety of information about wolves. For instance, by analyzing scats researchers can get a good idea of what a wolf’s diet is, and by recording the areas where wolves have urinated, biologists can investigate how often wolves must maintain their territory boundaries.

One of the most important technological advances for wolf research was the introduction of radio telemetry in the 1960s. Radio tele-

metry enables researchers to follow the movements of a wolf that has been fitted with a radio collar. The collar does not interfere with the wolf’s daily life, but it emits a specific signal that researchers are able to follow with a receiver. With radio telemetry, researchers confirmed that wolves travel in packs and live in territories. Before the use of radio telemetry, not only were wolves hard to find, there was also no way to distinguish one wolf from another. More recently, collars using a Global Positioning System (GPS) have provided researchers with many new options. Some GPS collars can record the location of a wolf every 15 minutes!

To examine tracks and signs left by wolves, biologists must travel over large areas. In most places, the best time of year to do this is winter because tracks and signs are easier to spot in the snow. However, no matter the season or the location, researchers travel in various ways to collect information. One of the best ways is to fly in an airplane during winter. From the air, biologists can locate radio-collared wolves and find kill sites, which are areas where wolves have brought down large prey animals, like deer, elk or moose. By using airplanes, researchers have been able to search large areas of land in a short time to find signs of wolves.

The methods and techniques researchers choose to gather information about wolves depends on a number of factors. One factor is the type of study. For example, genetic studies usually require analyzing scats, blood or hair. However, researchers investi-



Lisa Hall

Radio telemetry enables researchers to follow the movements of a wolf that has been fitted with a radio collar, which emits a specific signal that researchers are able to follow with a receiver, like the one shown here.





gating hunting behavior may not gain useful information from taking hair samples. It may be more beneficial for them to examine tracks and signs left by wolf packs and their prey.

Another factor is the location and terrain of the area being studied. For example, if researchers want to study wolf behavior, it may be more beneficial to observe wolves using a spotting scope than it would be to observe them from an airplane. In this case, it would be wise to choose

a place like Yellowstone National Park, where the vast open valleys enable biologists to view wolves from a distance for long periods of time.

From years of studying wolves all over the world, researchers have gathered much of the information that is now found in books and movies and on the Internet. Even so, biologists have not discovered all they need to know about wolves. New research is still needed to investigate unexplored areas involving wolves. ■

Try this!

In the activity below, use the knowledge you have gained about wolf research. Read the research scenarios and make suggestions for the biologists conducting the studies. Given each situation, what methods and tools would you suggest and why?

Word bank: airplane, hiking, snowshoe, floatplane, motion-activated camera, scats, spotting scope, and radio telemetry

Study description	Method of travel	Tools and observations	Why did you choose these suggestions?
EXAMPLE Biologists want to find out what a wolf pack's diet is during the winter. Usually, there is a lot of snow on the ground, and the weather is too unpredictable to fly a small airplane.	<i>snowshoes</i>	<i>scats</i>	
1. Researchers want to monitor pup behavior near a den. It's a wide-open area with few trees; however, getting too close might disturb the wolves.			
2. Biologists want to determine if there is a population of wolves on an island. It's summer, and the area is densely covered by trees.			
3. Researchers are monitoring a wolf pack with a large territory, and they want to determine the average distance they travel per day. It is winter, and the pack has one wolf with a radio collar.			

Suggested answers (other answers are possible):
 1. hiking, spotting scope; 2. floatplane, motion-activated camera; 3. airplane, radio telemetry

