

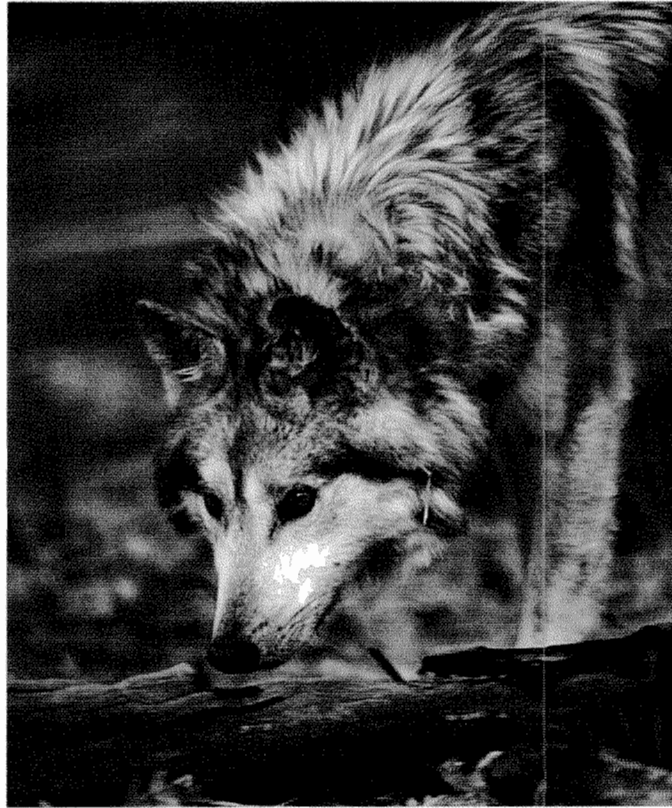
A black and white photograph of a forest floor. A large, dark log lies diagonally across the scene. The ground is covered with pine needles and other forest debris. The lighting is dramatic, with strong highlights and deep shadows.

ON THE TRACK OF THE WOLF

A paw print, a scat, the remains of prey are all clues a wildlife biologist follows to track an uncollared wolf born in the wild and a stranger to humans.

It's 4 a.m. as I leave the Mexican wolf

reintroduction project field office in Alpine headed for an area in the Apache-Sitgreaves National Forest northwest of Springerville. Biologists and campers have reported sightings



of a wolf there. We don't know where he came from or how long he has been there. All we really know is that he is probably a male since he was seen with a known female wolf right after breeding season last spring.

People have observed the mystery wolf and heard him howling, so I'm headed to the forest to see what I can learn.

By Rich Bard Photographs by George Andrejko

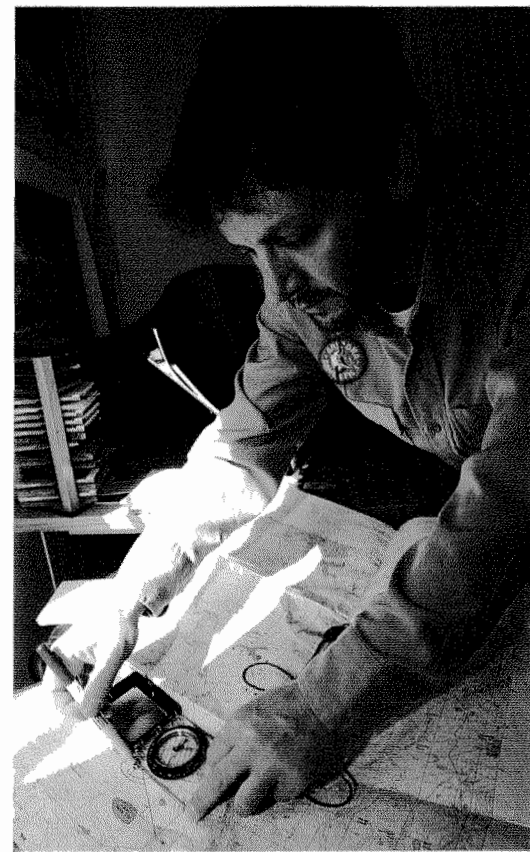


I'm trying to get to the area while it's still dark so I can listen for some early morning howling and possibly see the mystery wolf heading for a daybed somewhere. Failing that, I'll drive some of the roads and hike some trails looking for other clues—his tracks, his scat, or the remains of his prey.

The reintroduction team fits every adult wolf released from captivity with a radio collar that emits a signal on a unique frequency. Using a handheld antenna, a biologist can determine which direction the signal is coming from and then draw a corresponding line on a map. When this process is repeated from several locations, the place where the lines intersect indicates the wolf's whereabouts. The process is called triangulation, and it is the heart of what we do on the wolf project. Once we know where the wolves are, we can use the data as needed. Sometimes, the information is simply stored and eventually used to create a map of the wolf's home

range or territory. If the territory is close to populated places or livestock, we will monitor that wolf or pack of wolves more closely to be sure that it won't create a conflict.

The alpha pair—the pack leaders—breed every year in February or March and, if successful, raise a litter of one to five pups. During spring, summer, and fall, the reintroduction team—an interagency field team with members from the Arizona Game and Fish Department, U.S. Fish and Wildlife Service, U.S. Wildlife Services, White Mountain Apache Tribe, and New Mexico Game and Fish Department—attempt to trap the pups to fit them with radio collars. Although we do our best, some may escape capture and mature to become one of the unknown wolves. If they disperse from their natal pack at 1 to 2 years of age, they may wander alone until they find a mate. We will always maintain radio contact with as many packs as possible, but as the years go by more of the uncollared wolves



will become a fact of life for biologists and the general public.

I think the animal that I am trying to locate is one of these wolves: born in the wild and a stranger to humans. As a biologist, I am drawn to the mystery surrounding the animal. Who were the parents? How old is the wolf? Is he alone, or is he part of a pack that we don't yet know about? In the coming weeks we will try to find the answers to all of these questions.

Just before dawn, I pause at the edge of an expansive meadow and watch the sunlight advance through the early morning fog. The wolf was seen here a few days ago at about this time. I don't see him now, although I catch sight of a herd of elk, the wolf's primary prey, as they graze along the opposite side of the meadow. The sunrise gives me enough light to see if he's left tracks on the road, so I drive on reluctantly, cruising at low speed and stopping often to look for sign of the wolf. My passing creates only a small disturbance. The birds and squirrels go about their morning business in the dark, moist forest of spruce, fir, and aspen.

My early morning is a partial success. I didn't hear howling or find any sign, but I talked with several campers who had heard the wolf howl and one group even saw him cross a road. Information like this, from the public, helps us keep track of the growing wolf population. Although I work full time with the wolves, I rarely get a glimpse of them. More often it is the casual camper or hunter who sees them. We get reports of wolves hunting elk or playing with each other, or just walking along. The sightings are very important because they may hold

Opposite page top, the author examines the track of an uncollared wolf and (below) uses a map to triangulate the position of a collared wolf. This page, two wolves with an elk carcass photographed during a survey flight near Alpine.

clues to a pack's social structure and health, the number of wolves, and if they have successfully reproduced.

A few days later I go back to the area of the unknown wolf. This time I go in late afternoon and plan to spend the night. After dark, I do a systematic survey of a small area by howling at certain points along a road and listening for a response. Howling at wolves may be disruptive to them, so the general public is discouraged from doing it. But it can be a valuable tool for a biologist trying to locate or count wolves. I howl late into the night until I'm too hoarse to try again. The

tics that are unique to wolves. It isn't a mountain lion because the toenails appear at every step. Also, the general shape of the toes, heel pad, and the whole print are more consistent with a canine than a feline. I know it isn't a coyote or other wild canine because of the size. Only a wolf or a domestic dog has tracks this big. I can rule out domestic dog for other reasons. Most, but not all dog tracks are wider, with the outer toes pointing outward. Wolf paws are tighter and all the toes point straight ahead. Many pet dogs have toenails that are longer than a wolf's. A wolf wears down its nails by con-



only response comes from an elk and a group of coyotes. Wolves don't often respond to human imitators, but the information I might gain is worth the effort. I camp in the area hoping to find clues in the morning.

Sure enough, my persistence pays off when I find fresh tracks on a dirt road. The wolf traveled along the road for about a mile, then for some reason turned around and walked right back.

Tracks can tell us a lot about an animal and its behavior. I know it is a wolf track because it has characteris-

stantly traveling over rough ground. But to be really sure, I look at the general pattern of travel. If you watch a dog move along, it looks happy-go-lucky as it cavorts here and there, stopping to sniff everything and crisscrossing its general direction of travel. Not so with a wolf. A wolf always seems to know where it's going and every landmark between here and there. A wolf's tracks go straight ahead and rarely vary from the direction of travel. Furthermore, a wolf's rear foot usually goes right into the print of the



the hair and bones, I can learn what this wolf lives on.

Eventually, I hope to trap the wolf with a modified trap that minimizes the potential for injuries to his foot. We want to hold him, not hurt him. Once he is trapped, we will sedate him with drugs. This reduces the stress on the wolf since he will sleep through the handling process. We will measure his body, teeth, and paws, and draw blood for a series of tests including genetic analysis that will determine which pack he came from. Last, we will fit him with a radio collar so we can track him with radiotelemetry. A wolf adapts quickly to the collar, which weighs about a pound. A

front foot. Most domestic dogs step slightly to one side of the front foot.

So after thinking about all of these factors, I can reasonably assume these are the tracks of the unknown, mystery wolf. But there are other questions: When did the wolf or wolves pass by? Was it more than one? Was he stalking prey or moving at a fast pace? These questions can be answered by looking closely at the tracks. It's about 7 a.m. when I find them. The dirt the wolf moved when he walked is slightly darker than the surrounding dirt. This tells me that the tracks are fresh. When the moisture dries and the freshly turned earth takes on the same color as the rest of the road, they will be harder to age. Also, since the road receives relatively heavy use and the tracks go right down its main portion, I assume

the wolf walked by last night. If I'd waited until later in the day, a truck probably would have obliterated the tracks and I never would have found them.

It can be hard to count the number of wolves that walked by. At first glance you may think there is only one because they step in each other's paw prints. But if you follow the tracks, one will eventually step out of line and you can count another wolf. With this set, I see only one set of prints for about a mile and can assume a single wolf made them. I can also determine that the wolf was trotting, as they do most of the time, by the diagonal pattern of the tracks.



Above, a wolf adapts quickly to the radio collar, which weighs about a pound and when properly fitted won't catch debris or abrade the neck. Above right, the tracks of a male and female wolf traveling together.

To report sightings or encounters with a wolf, please call (888) 459-WOLF (9653) or (928) 339-4329. More information is available on the Internet at <http://mexicanwolf.fws.gov>.

I will continue trying to learn about this wolf. I will spend nights camped in his home range listening for howls. Most importantly, I will search roads and trails for clues to his diet. Finding a carcass that he has been eating will help, but is unlikely. More likely, I will find his scat, or feces. Hair and bones consumed by a carnivore are not digested and pass through into the scat. By identifying

properly fitted collar won't catch sticks or other debris and won't abrade his neck. The battery in the collar will last for three years or more.

When we have finished, we will inject a drug that awakens the wolf within a few minutes. Then we will step back and watch him walk into the forest. No longer a complete mystery, he will contribute to the recovery of Mexican gray wolves as a whole by teaching us about their habits in the wild. ♠

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Wildlife technician Rich Bard works on the Arizona Game and Fish Department's Mexican wolf reintroduction project out of Alpine. After two and a half years on the project, he says he still can't believe he gets paid to do this for a living.