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Scat-Sniffing Dogs Detecting Rare California Carnivores

BERKELEY, Calif.—Scientists at the U.S. Forest Service Redwood Sciences Lab and University of Vermont found scat sniffing dogs might be the best way to confirm the presence of rare carnivores in forested areas like the Southern Sierra Nevada Mountains.

In 2003 and 2004, they compared the ability of dogs, remote cameras and hair snares to detect fishers, bobcats and black bears at 168 sites throughout Vermont. Dogs had the highest detection rate for targeted species and were the most cost-effective, according to findings published last summer in The Journal of Wildlife Management.

U.S. Forest Service scientists with the Pacific Southwest Research Station used detection dog teams from the University of Washington’s Center for Conservation Biology last summer to study a Pacific fisher population in the Sierra National Forest. The study will help determine how efforts to reduce wildland fire risks there might affect the animal.

The U.S. Fish and Wildlife Service has ruled the fisher’s listing under the Endangered Species Act as warranted, but precluded because of other priorities and a lack of funds.

Land managers often have difficulty detecting forest carnivores because they tend to be elusive, solitary and on the go. Common methods for confirming a species at a site include using remotely-triggered cameras and barbed wire snares that snag hair. Both methods require the use of bait that can lure animals away from their typical range.

Scientists involved in the Vermont study, led by Robert A. Long, found detection dogs were three and a half times more successful at detecting species than cameras, the second best method. The dogs also only needed one visit per site to ensure a high probability of detection, an important consideration when long distances, difficult terrain and complex land ownership make research challenging.

“Right now, dogs bring the most bang for the buck, compared to passive survey methods like snares and cameras,” said Bill Zielinski, a Redwood Sciences Lab research ecologist and one of the study’s authors.

Zielinski hopes one day scat detection dogs might be trained to find many of the rare carnivores in a given area. These surveys could aid land management decisions because carnivores are a barometer of ecosystem health and many are particularly sensitive to human activity. Scientists can use scat to determine stress levels, learn what animals are eating and identify individuals through DNA.

Successful scat detection dogs tend to be high-energy mutts, with an excessive play drive. Often, they were difficult pets left at shelters. Handlers reward the dogs by playing tug of war with a favorite toy.

To view The Journal of Wildlife Management scat study, click on:

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