

Sniffing It Out

BY JEFF WELSCH

PHOTOGRAPHY BY THOMAS LEE

In a brushy south Bozeman backyard that looks deceptively like the backyards on either side, an energetic Belgian Malinois named Pepin is behaving much like any domestic dog. He pants happily at the presence of two visitors. He wags his tail and nuzzles our hands in search of a neck scratch. He looks with pleading eyes at owner Megan Parker and the two strangers, now his new best pals.

Pepin is oblivious to four cinder blocks spaced a few feet apart, one containing an open Mason jar with a fibrous collection of what looks like dried grass but actually is elephant dung from the Southeast Asian country of Myanmar. He couldn't care less about other decomposing scat scattered in the grass—from cheetah, mink, wolverine, among other exotic critters—that can make the neighborhood dogs frenetic with puzzled curiosity.

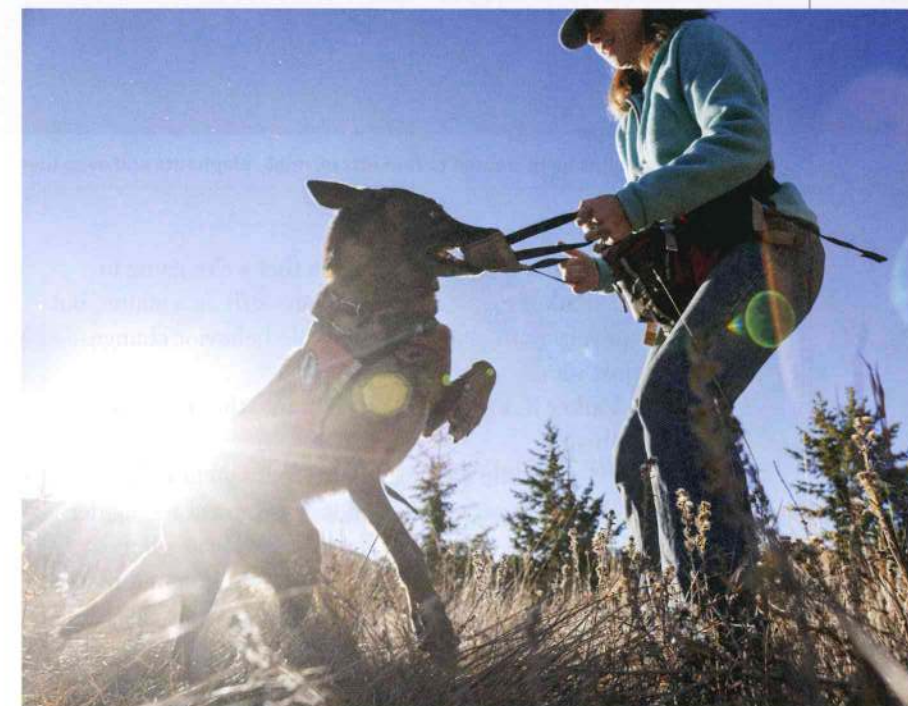
Parker reaches for an orange vest adorned with a patch that reads, "Working Dogs For Conservation: Search Dog."

"Ready?" she asks us.

We nod.

Parker calls to Pepin, rescued from a Montana shelter after being dismissed as too spirited to make a good pet. Parker slides the vest over his black and brown head and

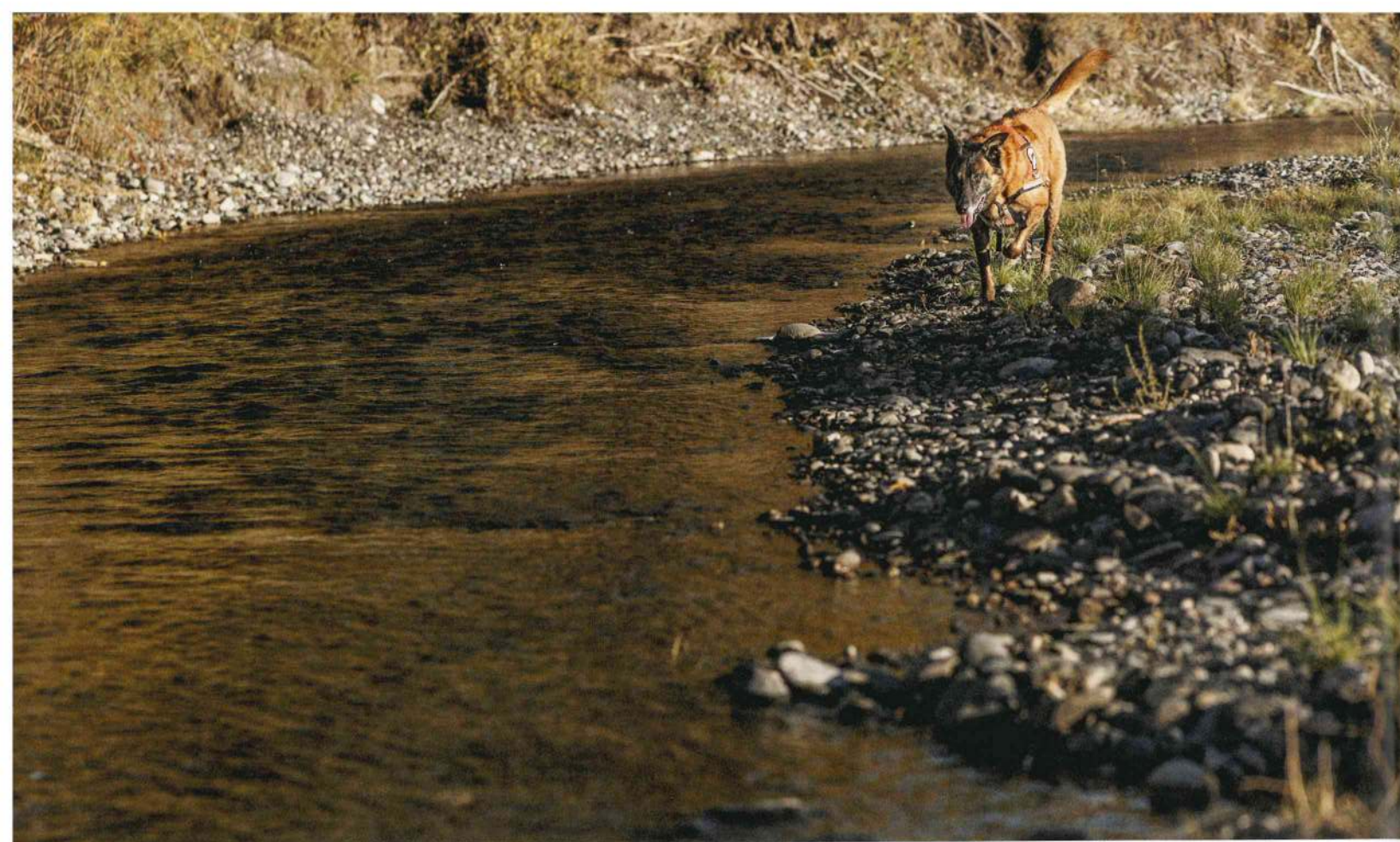
Specialized dogs have the nose they need to find grizzly bear scat, lizard poo and noxious weeds. But can they track a trout?



Pepin does get food treats as a reward from time to time, Megan Parker says, but his favorite prize is play.

secures it with Velcro. Pepin instantly freezes. His pupils dilate—"crazy eyes," Parker calls them—and those fiery eyes meet hers with laser intensity. The two new friends are now as invisible as the soft breeze.

Facing page: After success finding a dung sample hidden in a concrete block, Pepin moves on to finding it in open country.



Pepin has been trained to find otters, mink, elephants and even identify trout swimming in a stream.

"Putting the vest on is a cue that we're going to work," Parker explains as Pepin sits still as a statue, but for quivery anticipation. "His whole behavior changes. He just wants to go."

Parker has been gazing back into the dog's eyes. And then ...

"Pepin," she says excitedly, "Let's go to work!"

Pepin lets out a yelp and lunges toward the cinder blocks. Sniffing vigorously, he quickly locates the elephant dung in the jar. Parker praises him and reaches into a fanny pack for a treat. She then pulls out a tattered toy for a game of tug-of-war in which Pepin displays the ferocity of a junkyard guard dog.

The two repeat the exercise for 30 minutes, with Pepin easily finding the dung hidden in dense brush, amid the shadows under small Douglas firs or beneath autumn-tinted cottonwoods along Hyalite Creek beyond the back fence. It is the 19th time Pepin has played "the game." He is ready for his next assignment.

In two days, Parker and Pepin will board a plane for a 21-hour trip to Myanmar (formerly Burma). There they will search steep, thick jungles for fecal evidence of the wild elephant, a revered creature whose future is imperiled by poaching, logging and now poisonings related to a

mysterious spate of vulture deaths.

It is a daunting challenge in a place known for its leeches and venomous snakes. But Pepin and Montana dogs like him have successfully navigated rugged terrain around the world to locate such elusive critters as Africa's endangered Cross River gorilla, the cheetah, San Joaquin kit fox, blunt-nosed leopard lizard, wolverine and otter simply by sniffing out their poop. So expectations are high in Myanmar, where Pepin can help researchers get an accurate elephant count and learn the source of the poison with minimal disruption for the secretive animals.

"The dogs can find tons more poop than people do," Parker said.

As exotic as the Myanmar elephant project is, it has become the norm for Working Dogs For Conservation, a 13-year-old Bozeman nonprofit that's accomplishing what many dog experts once thought unimaginable. Dogs routinely find narcotics, missing people and cadavers, but the noses on Working Dogs' six otherwise unwanted former shelter canines are exploring entirely new frontiers in conservation. They know how to find poachers' snares in Africa, exotic weeds from Missoula to Minnesota, and stream contaminants such as pharmaceuticals. The latest vision: distinguishing native fish species such as cutthroat

trout from non-native rainbow, brook and brown trout while merely padding along stream banks.

"Here we are, a few shelter dogs from Montana, and these are the best dogs in the world at doing this," said Pete Coppolillo, Working Dogs' executive director since August 2012. "It's a brand new field, it's really important, and it's really kind of cool that they're here in Montana."

Working Dogs had its genesis in the mid-1990s, when Parker was asked about the possibility of dogs locating the scat of Yellowstone National Park's newly reintroduced gray wolves. Despite a lengthy list of skeptics, Parker tried anyway and first took dogs to Canada to see if they could find bear scat.

"And it worked really well," Parker said.

So well that Working Dogs For Conservation became a formal organization in 2000, co-founded by Parker, Aimee Hurt, Alice Whitelaw and Deborah Smith Woollett. In their first year they continued training dogs to distinguish between grizzly and black bear scat and also joined an effort to help the struggling San Joaquin kit fox.

Thirteen years later, their work has gone global. And instead of waiting for partners that can pay for a project's expenses, Working Dogs is evolving toward raising more of its own money through donations so they "can drive our own bus," Coppolillo said, adding: "There's so much demand, we have a lot of work."

That work starts with scouring animal shelters in search of the perfect dogs. Fewer than one in 1,000, they say, have the right recipe of focus and energy that separates them from pet-worthy canines.

"They're so super high energy, it's a little scary," Parker said. "Pepin is sweet as the day is long, but he's focused and toy-obsessed. We test the dogs, and if one is promising we'll take it out, feed it, give it vet care. We may find out that they're only crazy in the shelter. They have to really want to do this."

The benefits of such careful research are as diverse as the stable of dogs, composed of a black lab mix named Wicket that has a nose for Hawaiian rosy wolf snails and Chinese moon bear scat; a German shepherd named Tia that hunts for kit fox scat and Minnesota's emerald ash borer; a border collie called Orbee that follows his nose to such places as the Arctic tundra in search of bears and Cameroon for the Cross River gorilla; another border collie named Seamus that sniffs out Dyer's woad weeds on Missoula's Mount Sentinel; and Lily, an all-purpose yellow lab mix from Georgia that does much of the above plus work on Chinese bush clover. (Two others are in retirement,

and three died in their teens after lengthy careers.)

The ability to locate scat helps accumulate accurate population numbers. Through streamside poop, the dogs can discern pollutants in the water. They also reduce the need for so-called "collar and foller" counting of wildlife: the sedating and radio-collaring of animals, an expensive, invasive and potentially dangerous pursuit for both human and creature.

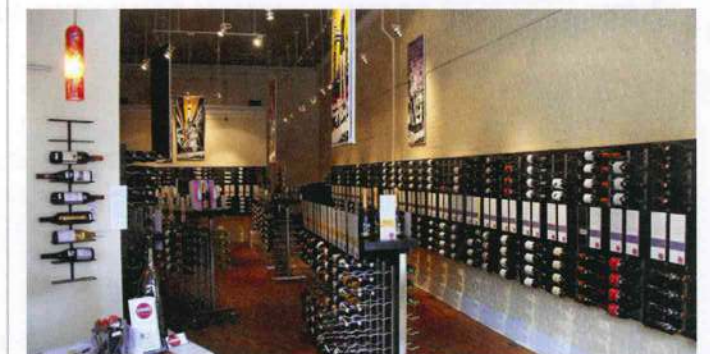
Parker was involved in a moose survey in Wyoming that covered the state. Lab analyses of the scat determined what the moose were eating, their sex, reproductive status, stress levels and other key data. A more traditional effort in Montana cost twice as much and didn't find as many moose.

Finding poachers' snares in Africa also defied long-held assumptions. Not only can the dogs smell the metal in the traps, they can detect the aroma of the person setting them. Poaching is reduced and rangers are safer.

"People said there's no way the dogs could smell metals, and they did," Parker said.



*Fancy Schmanancy or Just Kickin' Back...
We pair with whatever the Big Sky is dishing up
(we work with Chefs too!)*



Bozeman's Wine Store with Personality
315 E. Main (406) 586 - 8138
www.vinopertutti.com

Next up: fish. This past summer, Working Dogs started sniffing creek banks on media mogul Ted Turner's Flying D Ranch southwest of Bozeman. After seeing a presentation by Parker last year, Turner Endangered Species Fund's aquatic resources coordinator Carter Kruse wondered if the dogs might help find non-native rainbow and brook trout in creeks where he's trying to restore native cutthroats.

Kruse spends countless hours electro-shocking Spanish and Cherry creeks to count fish. The dogs might save him time. To that end, Kruse collected rainbows and brook trout from Spanish Creek, rubbed the slime on towels and put scented and non-scented towels in Ziploc bags. Could the dogs tell the difference between the two when their handlers removed the towels? Yes. Could they distinguish between species? Some. When fish were in separate buckets for at least 10 minutes, the dogs could indeed tell them apart. But whether a dog could find a single fish in 40 miles of creek remains uncertain, Kruse said, though he notes that the dogs are early in their training.

Even if unsuccessful to that level, Kruse can still envision, say, dogs at boat-check stations searching for such aquatic invasives such as zebra mussels. The state of Washington is watching closely: it is considering using Working Dogs to find a cheaper, more efficient way to determine whether streams have any fish at all. Under the state's law, all waterways with fish require a 50-foot stream setback.

"The dogs clearly can smell fish, but the question remains at what level can they pick up the scent," Kruse said. "Where dogs become valuable is if they can indeed smell fish where there are very low densities. But they're really amazing, that's the bottom line. And fun to watch."

Back at Parker's south Bozeman home, Pepin has finished his game with the dung from wild elephants, which he has learned to distinguish from dung from domestic elephants. His vest removed, he reenters his other world. He rediscovers his two new buddies with friendly eyes, wags his tail, and nuzzles like he's just another backyard dog.

Clearly, though, he's a lot more than that. ■

WE DON'T MAKE THIS STUFF UP

[THE VERY BEST OF THE BOZEMAN DAILY CHRONICLE POLICE REPORTS]

NEW BOOK!



SECOND EDITION 40 pages of **BRAND NEW** entries plus all the old favorites.



Foreword by Bozeman Police Chief Ron Price

April 6, 2008

A husband and wife had an argument. The wife later took some cash from the house. The husband said he was planning to use the cash to pay bills; the wife said she was planning to use it to hire a lawyer.

MAKES A GREAT GIFT ! ORDER TODAY!



BOZEMAN DAILY
CHRONICLE
empowering the community

Order by phone at 406-582-2637, online at dailychronicle.com
or email at book@dailychronicle.com.