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A wolverine leaves a live trap made of heavy logs after researchers attached a radio collar for tracking purposes.

Helping wolverines by tracking humans

BY ROB CHANEY
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Wolverines don't make themselves easy to study. In addition to being able to gnaw their way out of log-cabin-like traps, they're shaped kind of like a traffic cone. Even if you catch one, the radio collar tends to slip off.

So how do you study what snowmobiling and skiing do to wolverine habitat? Collar the humans. "This was the biggest radio-collar project with wolverines ever," said University of Montana wildlife biologist Mark Hebblewhite, one of the study co-authors.

The interagency study team focuses on what happens when one of the most elusive and charismatic of Rocky Mountain megafauna encounters growing numbers of back-

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country recreationists.

The question matters because wolverines are so hard to find that the U.S. Fish and Wildlife Service has hedged on declaring them an endangered species due to lack of data. While we do know the amount of suitable wolverine habitat is shrinking, we can't say the same about wolverine population numbers. They're too tough to count.

The Wolverine-Winter Recreation Research Project released last December compiled six years of observations in the mountains of Montana, Wyoming and Idaho. In addition to tracking 24 wolverines with GPS collars over 2.7 million acres, the team also recorded 5,539 people playing across 145,765 miles of the mountains around West Yellowstone, McCall, the Sawtooth Range and the Grand Teton.

"What's valuable about this is it suggests that

based on good science, there can be an effective balance between recreationists that are using public lands and wolverines," said John Squires, a study co-author at the U.S. Forest Service's Rocky Mountain Research Station in Missoula.

The study showed that just because people ski or snowmobile in good wolverine habitat, the wolverines don't automatically abandon the area. Instead, it indicates there's an activity threshold below which wolverines may hang around, but when exceeded they will give up and leave.

That's the kind of information Forest Service analysts and other land managers need when making winter travel plans, issuing permits for races or reviewing ski area expansions.

Wolverines roam year-round; they don't hibernate like grizzly bears. Males have more tolerance for human activity.

But females get bumped away much more easily. And that may affect reproduction in a particularly slow-to-breed species like wolverines.

Researchers passed out box loads of \$100 GPS trackers to snowmobilers, cross-country skiers and hybrid skiers (using snowmobiles to access back-country downhill slopes), a whole new window opened up.

The team made several enlightening observations. The first was there isn't that much recreation in prime wolverine habitat. The animals liked forested slopes and avoided open subalpine areas (although they traveled close to the forest edges) and denned in rocky talus fields.

That conceivably put them away from the open areas snowmobilers enjoy but exposed them to the glades that skiers seek out. But the study also pointed out some differences in scale for human activity.

"The impression of snowmobilers out there high-marking is actually quite rare," Hebblewhite said. "Most of them just drive old Forest Service roads. But they're the dominant form of activity. Snowmobilers tend to drive 50 miles a day. Back-country skiers typically traveled 10 miles or less."