

Smile!



In an effort to test methods of a DNA project, a **scientist** captures some **cool** candid grizzly moments on video

Above: A sow and cub check out a lure station. Inset: A grizzly sniffs one rub tree, then rubs on another.

Video captures by Jeff Stetz, USGS

When it comes to grizzly bears, one thing's for certain: They like the smell of rotten stuff. Rotten fish. Rotten cow's blood. It's like the smell of apple pie to you and me. They also like to scratch on trees and yes, they'll even play with wolves, on occasion.

How do I know this? I've seen Jeff Stetz's video collection. See, Stetz is a biologist with the U.S. Geological Survey. For the past 10 years he's been working with Kate Kendall on a massive project to collect and analyze DNA from the grizzly bears of Glacier National Park and its surrounding wildlands.

In the process, Stetz also gathered hours of fascinating grizzly bear behavior by using remote video cameras.

He's caught sows and cubs rolling in foul lure at scent stations. He's caught grizzlies scratching their backs on trees. He has footage of a young wolf playing with grizzly bear cubs — all on candid camera.

It all started out with science, of course.

Back in 2004, Stetz was working on a massive grizzly bear DNA study of the Park and its surrounding wildlands. To gather the DNA researchers use "hair traps." The concept is actually simple: You take some awful smelling stuff, like rotten fish juice, and pour it on some wood in the center of a fenced-off square of barbed wire.

The grizzly bear loves the smell and when it goes into investigate, it invariably rubs against the barbed wire, leaving strands of hair behind.

Some scent stations would have just a few strands of hair left, where the grizzly bear came in and left. Others looked like a bomb went off.

But researchers wanted to know how the bears reacted at the sites. Was the barbed wire a deterrent? Was it at the right height? And if

it was at the right height, were they capturing any cub hair?

And if they were missing cubs, should they put up a lower wire to capture their hair too?

In order to answer some of these questions, Stetz started setting up remote-controlled cameras at select sites. When the bear enters the site, it breaks a sensor beam and turns the camera on. The bear leaves, the camera turns off.

The footage proved to be more than just science, however.

It's entertainment.

"You can have all the stats you want, but people are compelled by color video ... This is the best stuff available right now ... to see how wild bears react at these sites," Stetz said.

So are bears deterred by barbed wire? Virtually none of them are. Most barrel right through the wire like it isn't even there.

One funny clip even shows a big fat griz stepping on the wire, rather than over it or under it, as most bears do.

He also set up cameras at bear rub trees. Grizzlies and black bears have favorite trees that they like to rub and scratch on. These trees are also good places to

gather DNA. Just a small piece of barbed wire tacked to the tree will snag their hair. The bears don't mind the small barbs on the wire one bit.

The odds of you ever seeing a bear scratch on a tree are very small.

But Stetz's cameras caught them scratching and rubbing away. The cameras also caught some other interesting behaviors, including:

- Both species using the same tree to rub on.
- Wolves urinating on rubs.
- A lone yearling black bear rubbing on a tree, but not doing it very well.

Many bears however, do notice the camera and its not unusual to capture footage of a





Above: A grizzly rubs on a log along a trail. Below: A gray wolf plays with cubs while a sow grizzly chews on a dead elk. The elk was not part of the DNA project, but did provide an opportunity to get some video in a closed area. You can view videos from the project at: <http://nrmsc.usgs.gov/research/NCDEbeardna.htm>, <http://nrmsc.usgs.gov/staff/stetz.html> <http://nrmsc.usgs.gov/research/KendallRemoteCamera.htm>



bear peering into the lens. And cubs? Cubs come into the traps with their mothers just like any other bear. The traps gathered both black bears and grizzlies; but it also caught footage of a host of other critters as well, including inquisitive moose, a red fox, a coyote, a curious pine marten, plenty of deer, a wolverine and even a teacher who was guiding a class on grizzly bears in the Park and stopped to show them a rub tree. The cameras and gear were paid for through a Glacier National Park Fund grant and virtually all of the hours and work put into the project were done by volunteer help. (Stetz

worked the cameras on his days off. That's what biologists do on their days off — they go for hikes.) While the video certainly answered some scientific questions, it's also made the DNA project one of the most popular projects in scientific circles. They've shared their study and findings with dozens of other wildlife agencies and groups, including dozens of foreign countries. The cameras are completely non-invasive — a view into the secret world of bears. "It's a sneak peek into their world. It's really exciting," Stetz said.



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