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Pilot project aims to preserve: Technology aids quest to protect land, wildlife

By JOHN CRAMER of the Missoulian

CONDON - Ryan Alter stepped into the frigid creek Thursday to adjust one of his fish cameras, the latest bit of advanced technology to come to this primeval landscape.

Later, Alter, a self-described tech geek with a passion for the outdoors, shimmied up a tree to repair another camera.

It's one of dozens of live streaming Web video and motion-triggered still cameras - a Wi-Fi zone, audio recorders and other monitoring devices are coming soon - that have captured grizzly bears, mountain lions, trout and other wildlife in an experimental effort to promote conservation in the West.

The remote system, whose online images will soon be available to the public, is being installed on a 200-acre ranch owned by a Chicago stockbroker who supports habitat conservation and has the deep pockets to do something about it.

It's an odd juxtaposition, this growing array of hardware, software, solar panels, fiber optic lines and other equipment being installed in a remote place where nature seems largely unchanged over the millennia but where modern pressures are closing in.

Across the West, a boom in human population and development is changing the landscape, turning forests into homesites and causing concerns about wildlife habitat, water, wildfires and other issues.

The Swan Valley, one of the most biologically diverse areas in the West, has the same concerns, which prompted a coalition of government agencies, nonprofit groups and landowners to look for ways to accommodate a

growing human population while preserving much of the valley's natural state.

At this ranch, which borders the Flathead National Forest near Condon, the landowner has no plans to build a house. The property formerly was owned by Plum Creek Timber Co., which is selling off tracts for residential development throughout western Montana.

Instead, the landowner has turned the site into an electronically monitored wildlife preserve and a pilot project for restoring the landscape, promoting conservation and furthering ecosystem research.

The in-stream video cameras, for example, have the capacity for telemetry monitoring for fisheries research. Alter built a shed beside the stream - it looks like a rough-hewn outhouse - that contains laptops and other electronic equipment for the underwater system.

Since 2006, the landowner has hired Alter and a team of researchers, including a forester, a botanist, a water quality specialist and others who are planting native trees, combating noxious weeds and restoring creeks to their natural state.

The landowner, who prefers to remain anonymous for now, may buy additional acreage for preservation, monitoring and research and may hire additional technicians and scientists.

The landowner couldn't be reached to comment, so it's not clear how much he's spent so far on the project, although it likely is a hefty amount - the bear den camera system alone cost about \$35,000.

"He's the ultimate conservation buyer," said Alter, owner of Alter Enterprise in Missoula. "He not only wanted to preserve the land, but to turn it into an example of how technology can be used to educate the public about conservation. He wants to spur others to do the same thing," even if they don't have the money for extensive camera monitoring.

Anne Dahl, executive director of the nonprofit Swan Ecosystem Center, praised the landowner's efforts.

"It's wonderful that he wants to protect and restore his property," she said. "Not many people can afford to do it the way he is, but it sets a good example and it's good for other people to learn from his successes and failures."

So far, most of the real-time video and photos from the ranch have been available only to the landowner. The first images made available to the public were interactive satellite video over the winter of a black bear cub that the Montana Fish, Wildlife and Parks released in an artificial den that Alter built on the ranch.

The images, which were posted on the Web site of a bear conservation group, drew an enthusiastic public response. That prompted the landowner to decide to make more images available on Web sites of conservation groups, Alter said.

The landscape monitoring system now includes cameras in the bear den, in birdboxes, in the stream and scattered across the landscape.

More monitoring equipment is being considered, including a system to monitor carbon emissions from vegetation and the soil.

The cameras give 360-degree views and record everything that moves through the air, water and land - from grizzlies to bluebirds to the human neighbor who took a morning walk in the woods in her house dress and slippers.

“That was one of our more unusual images,” Alter said, chuckling.

The system's picture quality varies - some are clear, while others are grainy - but more sophisticated cameras may be installed, Alter said.

Using remote cameras to monitor wildlife isn't new in the United States, where government, nonprofit and corporate researchers have been using motion-sensitive cameras and real-time satellite images for years to study wildlife.

But the technology is new in Montana, where Alter hopes to expand his fledgling company by working with government agencies, universities, conservation groups, and private landowners.

“I'm not inventing the wheel. I'm just making it more efficient,” said Alter, who uses a combination of off-the-shelf and special-order equipment and a lot of trial and error in the field, where everything from snow, rain and curious critters can affect the monitoring system.

For all the technical skills needed for the job, Alter spends much of his time bushwacking through forest, where he scouts locations and installs, adjusts and repairs equipment, including one camera batted about by a bear.

It's not the same little bear that spent the winter in the artificial den, where its every move - or at least its hibernating sleeping habits - was observed by thousands of people online.

That bear unexpectedly showed up Wednesday, looking healthy as it briefly visited the den before ambling away.

“I watched that little guy all winter and then I watched him leave the den for the last time in the spring,” said Kathy Koors, wildlife coordinator for the Swan Ecosystem Center.

“I was very worried about him with no mother to teach him how to forage” and with hunters around and nearby homes and human food sources. “So it's good to see that he's made it so far.”