

## Prevost

A ruling earlier this month by a Montana District Court judge has upheld a plan to allow bison to roam freely in a designated area north of Yellowstone National Park. But predicting when bison will leave the park—and how many will be on the move—is hardly an exact science.

So park researchers are developing a predictive technique using statistical analysis, weather models and historical movement records for tagged bison to get a better idea of what each year's migration patterns might look like.



Bison graze on the high school football field in Gardiner, Mont. in January 2006. (Jim Peaco/NPS - click to enlarge)

When hundreds of bison move through a small town like Gardiner, Mont. at the north entrance to Yellowstone, they have the potential to damage property, injure people and transmit disease to livestock.

Park managers and other wildlife agencies try to reduce those potential conflicts, but don't always know where and when the animals will move, said Chris Geremia, a National Park Service researcher at the Yellowstone Center for Resources.

In 2000, wildlife managers developed a bison management plan based on their best idea of how the animals had been moving around the park and its bordering lands, Geremia said in October during the Biennial Scientific Conference on the Greater Yellowstone Ecosystem.

“But the bison didn't move as we thought they might,” Geremia said. Initial movement models were too simple, and far more bison left the park than expected.

Bison numbers grew in unexpected ways, and between 2001-09, approximately 3,700 bison were slaughtered as part of efforts to cull herds and reduce conflicts outside the park.

Researchers started working on a new predictive model, putting tracking collars on more bison to better understand their movements.