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Finding Ways to Live with Wolves in Cattle Country

By Jim Pissott, Charles Mamo, and Gudrun Pflueger

Defenders of Wildlife Canada

What would you do if you were a wolf in cattle country? Defenders of Wildlife Canada, in cooperation with a number of other stakeholders, is trying to find out. In years past, wolf family packs likely had a very low chance of survival in southwestern Alberta, although little data existed. Wolves were all but eliminated on two occasions in the past 70 years, but now more packs seem to be established. Conflicts between wolves and livestock operators, and liberal hunting and trapping regulations, spelled trouble for wolves from the Bow River south to the Montana border.

Now, thanks to cooperative efforts among conservationists, provincial Fish and Wildlife and Parks and Protected Areas staff, local ranchers, the Alberta Trappers Association, and Alberta Beef Producers, wolf conservation and livestock depredation management are being addressed in a new light. Working as the Oldman Basin Carnivore Advisory Group, participants analyze wolf-livestock conflicts and advise the province regarding wolf management and conservation policy.

A cycle of livestock depredation, followed by non-specific killing of wolves suspected of depredation and then re-establishment of wolf numbers, has been repeated over the past several decades in southwestern Alberta. Frequently, wolves begin the depredation cycle again and the response is the same. Depredation losses are serious burdens to some ranchers and pose a perennial challenge to wolf conservation. But as one rancher observed, "We keep doing what doesn't work ... only harder."

Our new collaborative effort now aims to better understand the ecology, behaviour, and movement of wolves. In addition, we are investigating factors that may contribute to depredation – including landscape features, wolf pack stability, availability of natural prey, and livestock stewardship methods – and working to reduce the likelihood of livestock depredation by wolves.

At this point, there is a lot to learn on both fronts. Perhaps most importantly, we are working to ensure that all stakeholders, and the general public, have an understanding and appreciation of the dynamics of wolf conservation and management, livestock operations, and other management issues on Alberta's Crown lands.

The past three years have seen a significant change in southwestern Alberta. When initial livestock depredations were reported in the Willow Creek area in June 2003, the Alberta Fish and Wildlife Division, upon recommendation from the Advisory Group, contracted a biologist to capture and collar wolves in the area of the depredation. This was a marked departure from previous management response, which almost invariably involved the use of poison when problems became severe. In years past, there would have been calls for immediate reduction or elimination of the pack – probably using strychnine, as in 1990 – but this year we were trying something different.

This effort produced results that indicate progress for all of the Advisory Group members and steps in the right direction to conserve wolves and reduce depredations. We confirmed the presence and numbers of wolves (six adults and eight pups of the year) and determined that this family pack was responsible for local depredations. We tracked travel routes, identified den and rendezvous sites, determined territory boundaries, and observed the role of grizzly bears in wolf depredation of livestock.

Ranchers made use of telemetry gear to determine where wolves were so they could focus their cattle management activities. Some ranchers modified their cattle management – changing salt locations,





moving cattle to different pastures, spending extra time on the range, harassing wolves seen near cattle, etc. – to reduce the risk of depredation to the more than 4,000 cattle present.

In spite of these efforts, the Willow Creek wolves continued to kill livestock throughout the summer and fall, continuing a trend of depredations that began in 2001. There were 28 confirmed incidents of depredation, and the Advisory Group recommended lethal control beginning in early fall of 2003. In contrast to past lethal control work, however, the group recommended an incremental and specific approach to minimize the impacts of this severe method as much as possible and to give the pack the best possible chance for long-term sustainability.

Individual wolves were killed when they returned to depredation sites or were involved in ongoing episodes of cattle depredation. In January 2004, Fish and Wildlife agents captured five wolves (including the alpha female) by helicopter and euthanized four. One was released with a new satellite collar to better track the remaining wolves. When depredations continued, two more wolves (alpha male and new alpha female) were euthanized in March.

The three wolves remaining in Willow Creek were soon joined by another dispersing animal and the pack produced two pups in spring 2005. We are very encouraged that this pack has retained its home territory, promoting population stability and connectivity on the large landscape scale, and has not taken any cattle for more than 22 months.

Farther south at Bob Creek, four wolves were radio-collared in the spring of 2004. Ranchers here had suffered 63 confirmed losses to wolves from 1999 to 2004. Following eight cattle losses in April, the alpha male was removed from the pack and the behaviour of the remaining wolves was monitored closely. The five remaining wolves produced pups later in the summer. No further depredations were noted between the early summer of 2004 and spring of 2005.

In spring 2005, we joined with Alberta Fish and Wildlife and local ranchers to test the benefits of deploying “night riders” to discourage wolves from approaching cattle. More than 1,400 yearlings had been pastured in an area known to be used seasonally by the Bob Creek family pack. Over a three-week period, “night riders” would check for the presence of wolves with telemetry gear every hour between 8:00 p.m. and 8:00 a.m. If signals were received from wolf collars, riders would fire shots in the direction of the radio signal (not intending to injure wolves) and monitor wolf responses. Cattle would be monitored during the day to document wolf presence and note any daytime depredations.

As luck would have it, early April brought high winds, storms, and snow, challenging field staff who rose hourly during the night to check for wolves. On some nights, researchers felt lucky to find their tents still staked in place when they returned after listening for signals from the radio collars! Signals from collared wolves were detected on nine evenings, and firework bangers, screamers, and gun shots were fired to deter them.

Wolves retreated after each of these episodes, and no cattle were lost from this pasture during or after the experiment. But three steers were killed by wolves in an adjacent allotment, demonstrating the effectiveness of the night rider experiment.

A third wolf pack of at least nine individuals lives south of Highway 3 and north of the Montana border. No depredations were recorded until February 2005. Ranchers and others killed at least two wolves from this pack. In November, Fish and Wildlife managed to collar two wolves from a pack that lives in Waterton Lakes National Park. After one local rancher changed from running cow-calf pairs to running more vulnerable yearlings, this pack killed a few cows for the first time in several years. In response, ranchers killed at least three wolves, but we now are monitoring the behaviour of the rest of the pack. Hopefully, by next spring, we will have a better idea of the home range and movements of this Castle-Carbondale pack.





At least two other packs that have yet to be studied are believed to reside in areas adjacent to the three known packs. For the first time for many decades, it is apparent that stable wolf territories are contiguous from Kananaskis Country right to the U.S. border, an encouraging step forward in long-term sustainability of wolves in southwestern Alberta. We are working to compile a list of promising non-lethal methods to reduce the likelihood of depredations.

As the 2005 grazing season came to an end, we looked back with relief and encouragement. This summer saw low numbers of depredations and saw the Willow Creek and Bob Creek packs raising pups and causing few problems for ranchers. Our night rider experiment proved successful (but expensive). And we now have collars on more packs so we can monitor their movements more effectively. Best of all, we are meeting regularly with ranchers, listening to their concerns and discussing steps they can take to keep their cattle safe. Wolf howls are heard in southwestern Alberta, and our howls celebrating good progress are heard with them.

Defenders of Wildlife Canada represents Alberta Wilderness Association on the Oldman Basin Carnivore Advisory Group.

