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Deer dwindle near gas wells

Energy development could be hurting habitat, study shows

By Dave Anderton

One of the Rocky Mountain region's most extensive mule deer populations may be threatened by increased natural gas development as the search for new energy sources intensifies, according to a study released this week.

The findings from Western EcoSystems Technology Inc., based in Cheyenne, Wyo., said that the winter mule deer population in western Wyoming's Pinedale Mesa dropped to 2,818 in 2005 from 5,228 in 2002, a 46 percent decline.

"Results to date suggest that winter habitat selection and distribution patterns of mule deer have been affected by (natural gas) well pad development," the study said. "Changes in habitat selection by mule deer appeared to be immediate."

The nearly 100-square-mile mesa is a unique winter range for wildlife, providing a home to 4,000 to 6,000 mule deer.

The mesa also is the site of one of the nation's biggest natural gas plays, with dozens of drilling rigs and hundreds of producing natural gas wells.

Locked deep within tight sandstone deposits, an estimated 40 trillion cubic feet of natural gas lies below the mesa's surface. That's enough gas to satisfy residential demand for Wasatch Front cities for more than 300 years, or the nation's needs for two years, according to Ronald Hogan, general manager of the Pinedale Division for Questar Market Resources.

The WEST Inc. study — paid for by Questar Exploration and Production Co., a subsidiary of Salt Lake-based Questar Corp. — monitored deer over a four-year period by using a GPS radio-collared tracking system.

A separate nearby winter range for mule deer, with no oil or natural gas production, also was monitored as a control group. It showed no declines in mule deer population over the same four-year period.



Antelope graze on Wyoming's Pinedale Mesa. A study has found dwindling deer populations in the mesa, the site of one of nation's biggest natural gas development facilities.

Ravell Call, Deseret Morning News

In fact, the control area saw its mule deer population increase to 4,281 in 2005, up from 4,050 in 2002.

Four parameters were addressed in the study, which included monitoring of adult doe survival, over-winter fawn survival, reproduction and abundance. Survival rates for adult female deer and fawns were slightly lower on the mesa compared to the control area.

Because the survival rates were approximately the same in both areas, Hogan said the deer wintering on the mesa could be emigrating to other areas.

"This is an ongoing study, so it is certainly premature to make any final conclusions or determine any results," Hogan said. "In fact, we are going to add an additional parameter to measure, and that is going to be the human activity. We will be monitoring traffic patterns and relating those to the GPS data that are gathered on the deer."

The report noted that more than 1,000 acres of land on the mesa have been lost to habitat since 2000, when energy development began.

Peter Aengst, energy campaign coordinator with The Wilderness Society, said the mesa's deer are being displaced as energy production increases.

"You always hear, 'Oh, don't worry. The deer will get used to it and they will come back and nuzzle against the well pads and cross the roads, no problem,' " Aengst said. "Well, the study is saying that's not the case. In fact, it's saying that year after year they are getting displaced even further as the development goes further."

That displacement, Aengst said, is forcing the deer into less desirable habitat, compromising their survival during the harshest winter months.

The study said it found no evidence that deer "acclimated or habituated to well pads. Rather, mule deer had progressively higher probability of use in areas farther away from well pads as development progressed."

The reproduction portion of the study showed fawn-to-doe ratios the same on the mesa and control area over the four-year test period at 73 fawns per 100 does.

Rod Rozier, who has lived next to the mesa on a family ranch for 24 years, called the study's findings "sickening," but said it is unlikely people will show much concern over dwindling deer populations when faced with skyrocketing home heating costs this winter.

"If this herd disappears, there's a lot of people who will say that's the price you pay to get that gas out," Rozier said.

"There are going to be a lot bigger fuel crises than what we are having now. Are we going to be drilling in Yellowstone? Are we going to drill in the Wind Rivers? Certainly we are going to go to (the Arctic National Wildlife Refuge) in Alaska. If we are going to use energy crises as an excuse to destroy landscapes or diminish their values, that's a sad state for us."