

Gas development linked to wildlife habitat loss

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Pronghorn wintering grounds have declined by 85 percent in Wyoming's two largest gas fields, a new study has found. Credit: Julie Larsen Maher © WCS

A study by the Wildlife Conservation Society documents that intense development of the two largest natural gas fields in the continental U.S. are driving away some wildlife from their traditional wintering grounds.

Researchers tracking 125 female pronghorn in Wyoming's vast Jonah and PAPA gas fields using GPS collars discovered an 82 percent decline of habitat classified as "highest quality" – meaning highest probability of use for wintering animals. Widespread [natural gas](#) development in these areas, which are part of the Greater Yellowstone Ecosystem, has led to a sharp increase in well pads, roads, and other associated infrastructure. This in turn is driving pronghorn to the periphery of areas historically classified as crucial winter ranges, the five-year study says.

The study appears in the March, 2012 print edition of the journal *Biological Conservation*. Authors include Jon Beckmann and Rene Seidler of WCS; Kim Murray of Institute for Systems Biology; and Joel Berger of the University of Montana and WCS.

"In our study we have detected behavioral shifts for pronghorn in response to natural gas field development and infrastructure on federal BLM lands," said Jon Beckmann of WCS's North America Program and lead author. "By detecting behavioral changes, it is possible to identify threshold levels of gas field infrastructure development before any significant population declines. Maintaining the integrity of crucial wintering areas is particularly important in harsh winters to avoid diminishing pronghorn numbers."

WCS has developed recommendations to protect pronghorn on BLM lands. Some of the recommendations include: baseline data being collected on population sizes and distribution prior to any development occurring. Data would then be used to define crucial winter range and keep development levels lower in key areas. Habitat and population levels should be monitored over time in both the gas fields and in similar control sites where no gas is being developed using scientifically rigorous methods to examine impacts of gas fields. Directional drilling should be used to reduce surface disturbance and limit habitat loss and fragmentation.

Fifty percent of North America's pronghorn live in [Wyoming](#), which are declining in other parts of the U.S. Herds from throughout the western half of the state winter in the region where the gas fields are located including the herd from Grand Teton National Park that conducts the longest overland migration in the continental U.S. Herds that were attracted to the mesa above the natural gas deposits with windswept flat terrain and subsequent lack of deep snow are now being forced into less desirable areas.

The authors warn that pronghorn can only lose so much winter range before they will begin to decline in population. Mule deer have already declined by more than 50 percent from this region.

Joel Berger, a WCS co-author on the study, said: "Ultimately this is a policy issue for petroleum extraction on U.S. public lands. In several cases science indicates that petroleum developments have had negative impacts on wildlife. We are hopeful that studies like these will inform future energy development on public lands in the West."

Provided by Wildlife Conservation Society

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