

**Alberta Conservation Association
2024/25 Project Summary Report**

Project Name: Pronghorn Survival and Movement

Wildlife Program Manager: Doug Manzer

Project Leader: Paul Jones

Primary ACA Staff on Project: Paige Asplund, Trinie Chisholm, Brad Downey, Jeff Forsyth, Tyler Johns, Paul Jones, Megan Langfield, Amanda MacDonald, Doug Manzer, Dayce Rhodes, and Jaclyn Vanderfluit

Partnerships

Alberta Professional Outfitters Society (APOS) Wildlife Management Fund (WMF)

Blood Origins & Dallas Safari Club Foundation collaborative

Environment and Climate Change Canada / Government of Canada

iHunter

Minister's Special Licence Auction (APOS)

Minister's Special Licence Raffle

Parks Canada National Program for Ecological Corridors

Saskatchewan Fish and Wildlife Development Fund (FWDF)

The National Fish and Wildlife Foundation with support from the Bezos Earth Fund, Burger King, Capri Holdings, and Cargill

Key Findings

- We captured and collared 106 female pronghorn in Alberta (n=56) and Saskatchewan (n=50) and fixed them with a GPS satellite collar. We continue to monitor their movements and status as location data comes in.
- Working with the United States Forest Service, we developed a raster layer of sagebrush for the grasslands of Alberta and Saskatchewan.

- As coauthor, we published a paper titled “Neonatal Antipredator Tactics Shape Female Movement Patterns in Large Herbivores” in the journal *Nature Ecology & Evolution* and have submitted two other papers (as a coauthor) for consideration.
- We presented two papers at the 30th Biennial Pronghorn Workshop, held in Redmond, Oregon.
- Paul Jones was awarded the Berrendo award for his contributions to the conservation and management of pronghorn. The Berrendo Award is the most prestigious recognition offered through the Pronghorn Workshop.

Details

Among the diversity of prairie wildlife, the pronghorn (*Antilocapra americana*) is the most specialized and representative large mammal in the Grassland Natural Region. It is not typically found in any other Natural Regions of the province and is commonly assumed to be an obligate grassland species. Within the Northern Sagebrush Steppe of Alberta, Saskatchewan, and Montana, 55% of the pronghorn collared in the early 2000s made seasonal migrations between summer and winter ranges. Since this initial work almost two decades ago, the Alberta landscape has seen dramatic anthropogenic change. This is most evident in the vicinity of the Trans-Canada Highway and Highway 3 at migration key linkage areas where pronghorn attempt to cross north and south during their spring and fall movements. In Saskatchewan, our initial work modelled connectivity across the Trans-Canada Highway, although the sample did not include individuals collared north of Highway 1. The accumulation of anthropogenic and linear features on the landscape has the potential to create a high disturbance zone that will impede normal pronghorn migration, as well incumber directional movements south to avoid severe snowstorms over the entire winter period. To more clearly understand the threats to annual migration patterns of pronghorn, we initiated a detailed study in 2024. We captured and collared 106 pronghorn between Alberta (56 females) and Saskatchewan (50 females) and fitted a GPS satellite collar to each individual. The collar will collect locations on each individual pronghorn every 5 hours, unless they move to within 4 km of the Trans-Canada Highway or Highway 3, upon which time we collect fine scale temporal and spatial data every 15 minutes. We continue to monitor the collared pronghorn’s movements. As part of the study, we worked with the United States Forest Service to create a raster layer for silver sagebrush for the grasslands of Alberta and

Saskatchewan. This raster layer will be important for modelling resource selection and movement of pronghorn. As part of our commitment to raise the profile of pronghorn, we co-authored a paper titled “Neonatal Antipredator Tactics Shape Female Movement Patterns in Large Herbivores” published in the journal *Nature Ecology & Evolution*. Lastly, Paul Jones received the Berrendo award for his contributions to the conservation and management of pronghorn at the 30th Biennial Pronghorn Workshop.

Photos



Photo 1. A female pronghorn captured via net-gunning by Bighorn Helicopters Inc. for the purpose of attaching a satellite GPS satellite collar. Photo: Bighorn Helicopters Inc. / ACA



Photo 2. A female pronghorn runs across the frozen landscape after being captured and collared. Photo: Bighorn Helicopters Inc. / ACA



Photo 3. Paul Jones with his Berrendo award at the 30th Biennial Pronghorn Workshop. Photo: Andrew Jakes