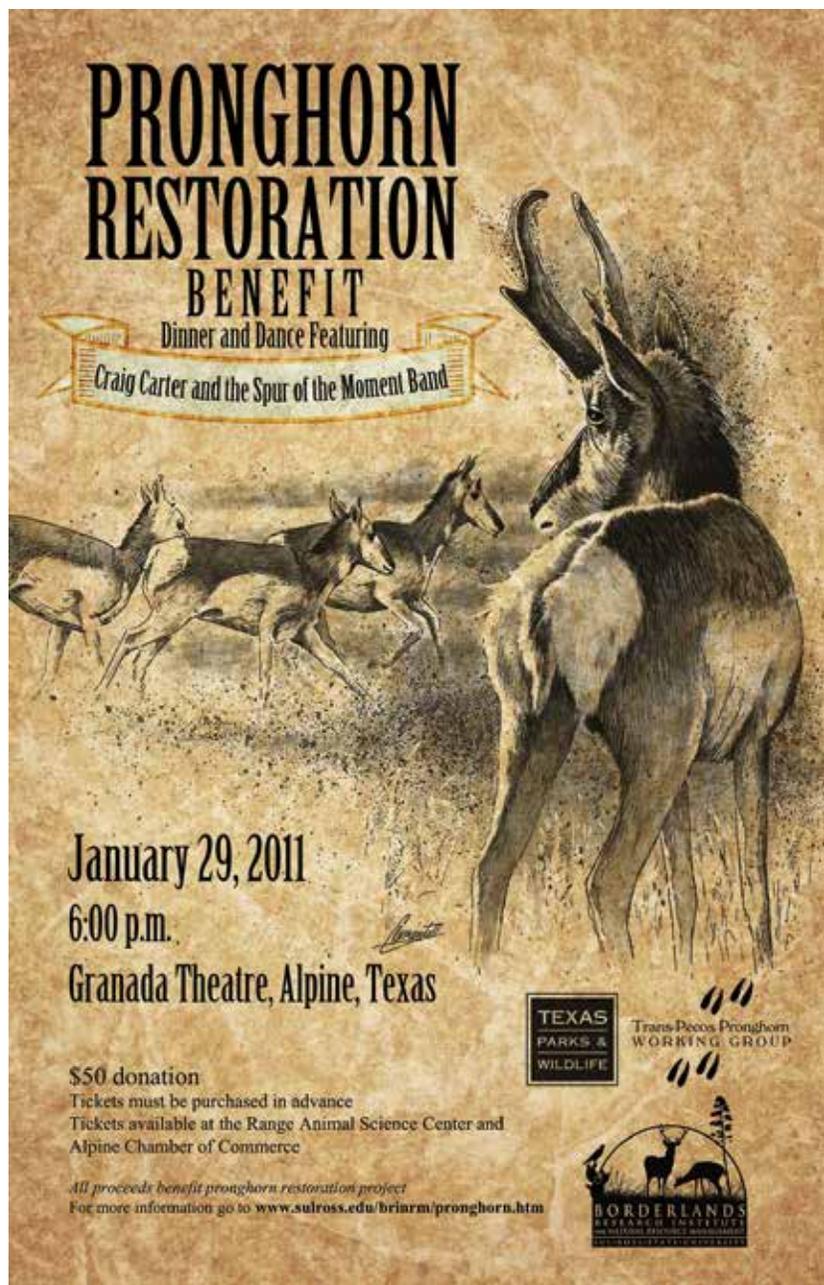


The Power of a Public-Private Partnership

LANDOWNER-DRIVEN RESTORATION OF WEST TEXAS PRONGHORN

By Whitney Gann, Louis Harveson, Shawn Gray and Billy Tarrant



Credit: Trans-Pecos Pronghorn Working Group

▲ When the pronghorn population in West Texas suddenly plummeted, the newly formed Trans-Pecos Pronghorn Working Group organized a benefit to raise funds to translocate pronghorn from healthy Texas Panhandle populations to the Trans-Pecos region of West Texas.

Music and voices could be heard pumping out onto the main streets of Alpine, Texas, from the sound system at the Granada Theatre. It was January 29, 2011, and the Trans-Pecos Pronghorn Working Group — a coalition of landowners, state biologists, sportsmen, veterinarians and researchers — was rallying the public to raise money. More than 300 people with a vested interest in — and passion for — pronghorn had gathered here from across the state for one reason: to facilitate the largest net-gun capture and translocation of pronghorn ever to occur in the state of Texas.

The story of pronghorn (*Antilocapra americana*) in Texas is quite a tale. There have been highs and lows and more than a few failures. But the problems faced by the species are not unique to the Lone Star State. Just as habitat loss and overharvest at the turn of the 20th century led to the declines of many large game species across North America, these same problems caused the state's once abundant pronghorn population to plummet.

In an effort to reverse the decline, pronghorn were translocated intrastate for the first time in 1930. By the mid-1980s, increasing regulation, intensive management and favorable rainfall led to recovery, and the population rebounded to about 17,200. During that time, the portion of Texas that lies west of the Pecos River, also known as the Trans-Pecos region, was considered to be a stronghold for pronghorn populations. But for pronghorn in Texas, the hits just kept coming.

A sudden, unexplainable drop

In 2009, in the midst of a drought, landowners residing around Marfa, a small desert city in West Texas where thousands of pronghorn were known to roam, noticed that the animals were disappearing. Ranchers described instances of animals dropping dead in the field. There was no predation; they were just dying where they stood. Results from that year's Texas Parks and Wildlife Department (TPWD) aerial



pronghorn surveys confirmed what the public had been noticing: the population around Marfa had significantly declined. More than 3,000 pronghorn were thought to have died during a one- to two-month period across an area of almost half a million acres.

The following year, rainfall increased. The rangeland appeared to improve. But TPWD aerial surveys indicated that fawn recruitment had fallen to nearly zero. County biologists reaching out to area landowners in search of answers found that reports of dead, non-depredated pronghorn were becoming increasingly widespread.

A groundbreaking partnership

Realizing the urgency of the decline, the Trans-Pecos Pronghorn Working Group formed in the summer of 2009 to devise and implement strategies to recover the pronghorn population. The group turned out to be an example of collaboration at its finest. Its strength lay in each member's unique perspective and willingness to help. Even more importantly, the team was as diverse as it was focused. Most notable was the number of private landowners who came forward. Looking back, a rancher amenable to trying new land-management techniques to encourage the recovery of a species of conservation concern was about as rare in Texas as public land, but there they were. It was amazing to see members of the working group side-by-side. Everyone's voice was heard equally, and those voices did not fall on deaf ears. TPWD listened.

By 2010, the group's concern was at an all-time high. The initial pronghorn die-off occurred at the end of an extended dry spell and the resulting poor grassland conditions seemed to adequately explain why numerous animals may have died from disease and predation. But despite several months of above-average rainfall and much-improved range conditions, landowners were still reporting pronghorn in poor body condition and with no sign of fawns. By the summer of 2010, the Trans-Pecos population was still in decline, at an alarming 4,700 individuals. Natural recovery of the population did not look realistic. The working group and TPWD determined that something had to be done.

Pronghorn had been translocated in the state before and it could be done again, but a translocation large enough to bring in the necessary number of pronghorn would require a significant financial investment. Team members were adamant that they could raise the funds and immediately began organizing a benefit. TPWD staff and biologists, local sportsmen and hunting guides, students and faculty from the Borderlands Research Institute (BRI), landowners and working group members volunteered their time to plan and work the benefit on short notice.

The support was incredible. A fundraiser — planned in just 60 days and beginning with the hope of reaching \$25,000 — raised around \$100,000 in one night. Additional contributions poured in from private donors and safari clubs from across the state. Private donations were matched by the state's Pittman-Robertson dollars, and enough funds were raised to translocate the pronghorn. But the big remaining question was: where would the animals come from?

Out of the Panhandle

The working group began seriously evaluating the probability of using pronghorn from the Texas Panhandle to boost populations around Marfa. The availability of agricultural lands in the Panhandle served as a buffer for populations during drought

▼ After arriving in a new area, translocated individuals mix with residents almost immediately. Here, a 2016 translocated doe has found a group of Marfa pronghorn to join.



Credit: Borderlands Research Institute



Credit: TPWD

▲ Texas Parks and Wildlife Veterinarian Robert Dittmar trims the hoofs of a pronghorn while volunteers monitor rectal temperature and apply a GPS collar during the 2013 translocation of animals from the Texas Panhandle. As the department's only veterinarian, Dittmar addresses health and disease issues statewide and is a regular at pronghorn translocations.



Credit: Borderlands Research Institute

▲ A translocated doe and her twins pass underneath a pronghorn-friendly fence. These fences have their bottom wires almost half a meter off the ground, allowing pronghorn to pass underneath. As part of the long-term restoration program, the Texas Parks and Wildlife Department and Borderlands Research Institute work collaboratively with private landowners to modify their fences so the animals can pass underneath them.

periods. During the Trans-Pecos crisis, populations in the northern Texas Panhandle remained relatively stable at around 11,000.

In the fall of 2010, TPWD staff polled Panhandle landowners through a mailed questionnaire to discover perceived pronghorn-related conflicts with farming and solicit opinions on the possibility of capturing pronghorn. The response from Panhandle landowners was favorable. In fact, many around Dalhart preferred to have fewer pronghorn to minimize crop depredation. This was a win-win situation. TPWD could help the depredation problem in the Panhandle and move pronghorn down to the Trans-Pecos where they were needed.

The first pronghorn translocation to occur in Texas in nearly 40 years was in the works.

First it gets worse

In February 2011, TPWD and the BRI, with the assistance of the working group and private landowners, captured, transported and released 200 pronghorn from surplus populations in the northwest Texas Panhandle to the southwest and northwest Marfa Plateau. Unfortunately, the team had yet to see how poor the range conditions could get.

The translocation took place just in time for the most intense drought in recorded Texas history (Nielsen-Gammon 2012). Nearly 80 percent of the monitored translocated animals died over the following year. By summer 2012, a region that had previously supported nearly 70 percent of the state's pronghorn population now held only 2,751 animals, a new 80-year low (Gray 2013).

Translocation efforts stopped until parts of the region experienced increased precipitation, vegetation recovery and improved soil moisture. During summer 2012 to fall 2013, the Trans-Pecos received above-average precipitation, leaving range conditions favorable for another attempt in 2013. The BRI, TPWD and the working group petitioned funds from the Texas Parks and Wildlife Foundation and were awarded a grant to continue restoration efforts. Again, these private monies were matched with Pittman-Robertson funds.

The team reorganized, and in January and February 2013, 125 pronghorn were translocated to the Marathon Basin, east of the city of Marathon,



Texas. Movement data retrieved from radio-collared animals released in 2011 indicated that net wire and barbed wire fences with low bottom wires often posed as barriers to pronghorn movement. To prepare for the 2013 translocation, the team worked with landowners to modify these fences by securing the bottom wire 18 inches off the ground in long stretches, 20 to 30 yards across. These “pronghorn friendly” modifications were meant to allow the animals to pass underneath.

In 2013, after 43 weeks of monitoring, survivorship was estimated at 78 percent. In January 2014, conditions were favorable to translocate pronghorn again and the team added another 96 to southeast Marfa, with 71 percent survival. In January 2016, 112 pronghorn were moved to northwest Marfa, with 84 percent survival. In January 2017, the team translocated 109 pronghorn to northeast Marfa, with survival at 80 percent 47 weeks after the release. The next translocation has been completed. Most recently, an additional 100 female pronghorn were transplanted to the Marfa southwest restoration area in February, the site of the first translocation in 2011.

Back from the bottom

We are happy to report that pronghorn populations in the Trans-Pecos are on the rise. Since 2011, pronghorn numbers have increased by more than 3,000. To keep this positive trend going, today the working group is focused on providing pronghorn with “drought-resistant habitat” and increased connectivity of the rangeland. Ultimately, poor rangeland conditions resulting from prolonged drought were the primary force driving the population decline. Pronghorn in the Trans-Pecos, however, are adapted to periodic drought and their inability to recover from the recent drought conditions was abnormal.

One of the main culprits was movement barriers that confined pronghorn to sub-par rangeland. Sadly, restrictive livestock fencing had limited the animals’ ability to travel with the rainfall so they could find adequate food sources, locate fawning areas and escape from predators, which is especially critical in drought years (Yoakum 2004). To date, more than 2,000 fence modifications have been implemented across five restoration areas, resulting in the reconnection of more than 310,400 acres of grassland habitat. Landowners have also



Credit: TPWD

▲ Author Whitney Gann applies a satellite collar to a translocated pronghorn while Sul Ross State University students look on. Satellite collars were added to the project in 2017 to provide valuable habitat-use data. These collars will collect location data every 15 minutes for 510 days, allowing researchers to determine where and how frequently pronghorn cross fences and act quickly if any fences still act as barriers.

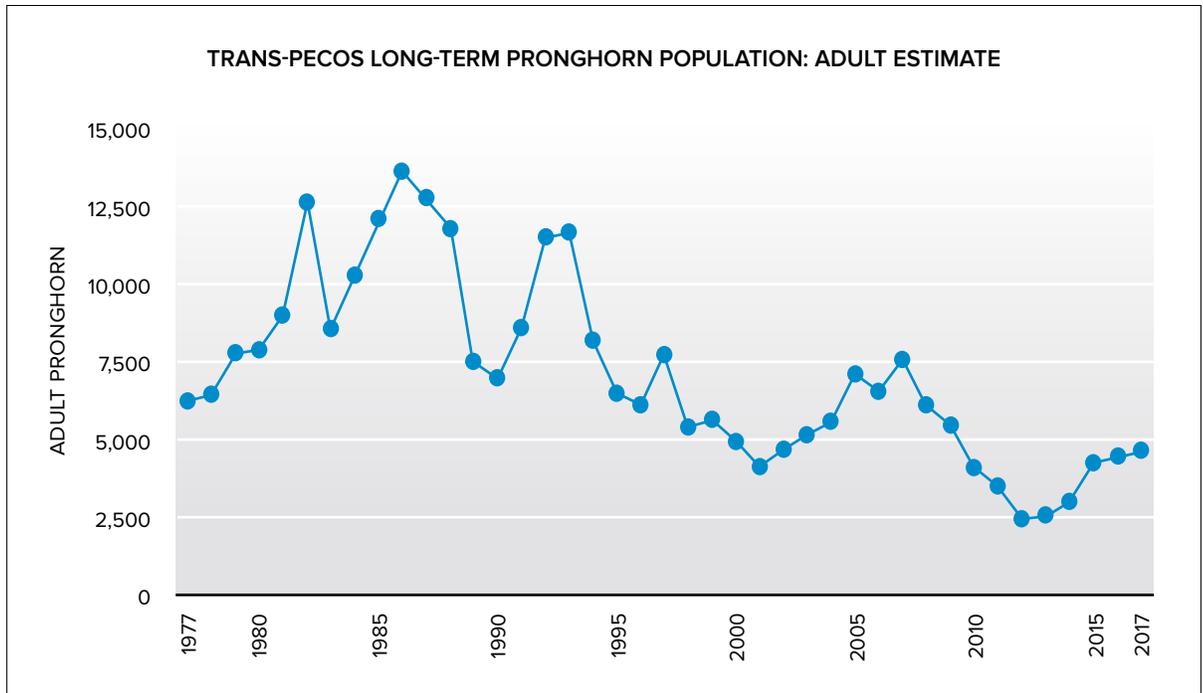
voluntarily replaced hundreds of miles of fence line with pronghorn-friendly fences.

Had long-term monitoring taken place after historic restoration efforts in Texas following the population decline in the 1930s and 1960s, we may have had more information to work with when trying to piece together the factors driving the population crash from 2008 to 2012. We now monitor at least 40 percent of all translocated individuals using radiotelemetry and work closely with landowners to address barriers to movement, such as fences unfriendly to pronghorn, as soon as possible.

The fence modification initiative implemented in 2013 is a significant effort carried out in part by TPWD, BRI and the partnerships built through the working group. Modifications have ensured that both resident and translocated pronghorn can move



► Long-term pronghorn population trends are documented in the Trans-Pecos region of West Texas using annual aerial survey estimates of adults conducted by the Texas Parks and Wildlife Department.



freely throughout the grasslands to access seasonally available forage.

The rewards of collaboration

The value of this collaborative effort, in addition to public-private partnerships developed throughout the last nine years, cannot be overstated. The connections made with the West Texas landowners have been pivotal to the success of the Trans-Pecos pronghorn restoration effort. Those of us who have been in this field for longer than 20 years still look back in awe of how amazing it was to see the kind of selflessness and commitment demonstrated by the public and the restoration team when it came to rallying support for pronghorn.

We were operating in complete emergency mode when we got those survey results, but we seamlessly came together to make change happen. For many, that is the kind of support for wildlife you can work toward your whole career but never see. The silent partners and working group members who came forward, made connections and volunteered countless hours are unsung heroes in this effort. Finally seeing the benefits of all that time and hard work makes for extraordinary feelings of pride that we all can share.

Today, public attitudes toward Texas state biologists and researchers and the newfound cultural appreciation for pronghorn in far West Texas have

completely changed from what they once were. The trust and partnerships built through this crisis are lasting and strong, and the perception of the value of science as a tool to advance management has undergone a dramatic paradigm shift.

Biologists now regularly receive calls about pronghorn sightings, invitations to host pronghorn field days and questions about pronghorn. People here are excited about *their* pronghorn, excited about the restoration effort and, most importantly, engaged in wildlife. This is the way conservation should work. ■



Whitney Gann, PhD, AWB[®], is a research scientist at Borderlands Research Institute, Sul Ross State University, secretary of TWS' Rangeland and Wildlife Working Group, and a member of the Editorial Advisory Board of *The Wildlife Professional*.



Louis Harveson, PhD, CWB[®], is the Dan Allen Hughes, Jr., Endowed Director of Borderlands Research Institute, and Professor of Wildlife Management, Sul Ross State University and a past president of TWS' Southwest Section and the Texas Chapter.

Shawn Gray, MS, is the mule deer and pronghorn program leader for the Texas Parks and Wildlife Department.

Billy Tarrant, MS, is the director of Region 1 for the Texas Parks and Wildlife Department.