

Ecological Restoration Brief

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Trans-Pecos Pronghorn Restoration

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BRI graduate students carrying a captured pronghorn.

Wildlife restoration has been a key component in improving and sustaining our wildlife populations in North America. Arguably, several of our game species throughout the western United States may have been extirpated if it were not for large-scale restoration efforts and intensive management. Translocations still remain a valid tool in wildlife management and are currently being performed by several state agencies in attempts to supplement declining populations or removing excess animals in fragmented habitats. Recent surveys in the summer 2012 yielded a population estimate of 2,700 pronghorn

throughout the Trans-Pecos region. This estimate is currently lower than the population size yielded in 1938; the same year that Texas Parks and Wildlife Department first initiated pronghorn restoration efforts. In fact, many metapopulations of pronghorn have sustained severe losses in the Trans-Pecos. Therefore in 2011, Texas Parks and Wildlife

Department in collaboration with the Borderlands Research Institute at Sul Ross State University and several other stakeholders reinitiated pronghorn

restoration in the Trans-Pecos region of the state. Potential contributing factors include drought, poor fawn survival and recruitment, parasites, predation, and movement barriers.



Helicopter net-gun capture of pronghorn in the Texas Panhandle.

As of January 2013, 330 pronghorn have been translocated from surplus populations in the northwestern Panhandle to the Marfa Plateau (2011) and Marathon Basin (2013) regions of the Trans-Pecos in 2 translocation efforts.



Helicopter transporting pronghorn to a staging

Although, thousands of pronghorn have been translocated throughout the United States, most state agencies failed to establish sufficient post-release monitoring. This complicates decision-making and our understanding for future restoration efforts to ensure restoration success and evaluating methods of translocation. As a result, a research project was initiated that involved intensive monitoring. Currently, 139 (VHF = 52, GPS = 87) radio-collars have been deployed on translocated pronghorn to evaluate post-release survival and movements. GPS radio-collars were store-on-board and programmed to record hourly locations for 300 days. This data has proven vital in assessing our translocation success and identifying needed modifications to improve future restoration efforts.

In 2011, survival of the translocated pronghorn was inhibited by historic drought, poor range conditions, unusual freezes, and epic wildfires that the Trans-Pecos region endured post-release. As a result, restoration was marginally successful in supplementing populations in the Marfa Plateau. However, this information has assisted us tremendously on the most recent restoration effort. Approximately 70 fence modification sites on 65,000 acres were implemented to ensure adequate movement and prevent movement barriers.

In addition, information from the GPS radio-collars has been used to improve capture and transport methods, as well as improving the release site evaluation and preparation process to maximize survival. These preparation measures and learned experiences from the 2011 translocation have already yielded success. As of March 6, 2013, we have not suffered a fatality in nearly a month. In addition, capture-related mortalities were significantly reduced compared to 2011. This improved survival can be mainly contributed to modifications in capturing, handling, and transporting as well as improved range conditions and intensive preparation at the release site using information learned from the previous translocation.



Game camera revealing translocated pronghorn utilizing fence modifications implemented before release.

Restoration efforts are necessary to supplement severely declining populations; however, the necessity to learn from each translocation to improve standards and success is absolutely essential in effectively improving pronghorn populations in the Trans-Pecos.

The Texas Society for Ecological Restoration promotes ecological restoration as a means of sustaining the diversity of life on Earth and re-establishing an ecologically healthy relationship between nature and culture.

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