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WHITE-TAILED DEER POPULATION CHARACTERISTICS

White-tailed deer are an important component of native rangelands and a major economic resource in Texas. Billions of dollars are spent annually for white-tailed deer management and hunting.



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The Foundation's ranches are home to abundant and healthy deer populations, that are not influenced by nutritional supplementation, harvest, or other forms of management. As such, Foundation deer herds reflect a natural state, largely free from human intervention. Additionally, deer herds on Foundation lands are positioned on an east to west precipitation gradient (high to low) and capture a full range of habitat conditions occurring in South Texas.

With this as background, the Foundation has embarked on a multi-year project aimed at creating a profile of unmanaged deer herds and assessing what impacts varying habitat conditions have on deer herds of South Texas.

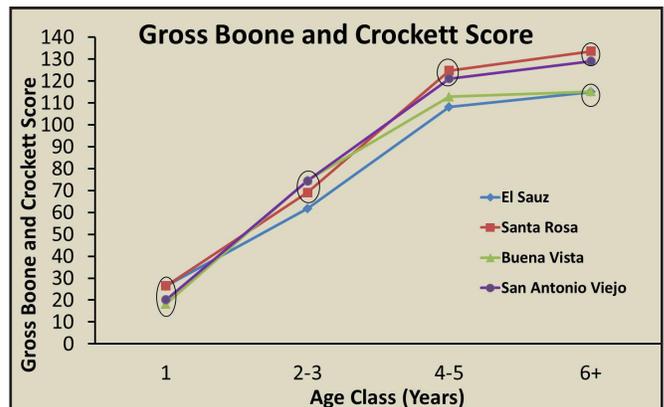
During autumn of 2011–2014 we live-captured and released 2,775 white-tailed deer from four East Foundation ranches, ranging from the coast to 100 miles inland. Body weights, body condition, antler size, lactation status, and age are recorded for each deer.

Though analysis is continuing, this project has produced several notable findings.

- Body weights of middle aged and mature deer displayed geographic variation, with deer on the San Antonio Viejo ranch (SAVR) being >12% larger than deer on the coast; antler size showed a similar relationship, with middle aged and mature deer on

the SAVR having a 9–17% greater gross Boone and Crockett score than deer on the coast

- Thus, even at a relatively small regional scale, habitat components influence physical characteristics of white-tailed deer
- Above average rainfall in 2010 led to high fawn recruitment; drought conditions in 2011 and 2012 decreased fawn recruitment and yearling deer composed 4–8% of females and 8–9% of males captured in 2012 and 2013 on the SAVR; deer 6.5 years and older composed 30–43% of the females and 16–41% of the males captured from 2011–2013
- Hence, recruitment in unmanaged deer herds appears to be controlled by rainfall; frequent drought ensures that these populations rarely grow to high levels, while years with high rainfall result in high recruitment that keeps unmanaged populations from declining; large numbers of older deer also act to sustain the population until precipitation necessary for reproduction is available



The Foundation is committed addressing research questions relevant private landowners in South Texas. Baseline data from our unmanaged deer herds will allow managers make the best use of native rangelands, for both cattle production and wildlife conservation.

Partner: Caesar Kleberg Wildlife Research Institute