

# SOUTH TEXAS WILDLIFE



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## GOT THE SOUTH TEXAS BLUES?

by Eric Grahmann, Blake Martin,  
Timothy Fulbright, and  
Fidel Hernández

South Texas is well known for a variety of things including thorny brush, unique breeds of cattle, and abundant wildlife. Deer and quail are the most popular game species

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in the region. However, not all quail species garner the same interest among hunters and wildlife managers. Of the 2 quail species found in South Texas, the northern bobwhite is king. The other quail species, the scaled quail (often referred to as "blue quail") is hardly noticed. Scientists refer to the species as *Callipepla squamata*. Quail hunters often refer to them as "son of a \_\_\_\_" (we'll let you fill in the rest)!

The range of scaled quail is centered in the Chihuahuan Desert in the southern United States and northern Mexico. The chestnut-bellied scaled quail is 1 of 4 subspecies of scaled quail and it is found throughout the

Tamaulipan Biotic Province including South Texas (west of Hwy 281) and northeastern Mexico. The chestnut-bellied scaled quail is differentiated from the other subspecies of scaled quail by its slightly darker plumage and reddish-brown patch running from the lower breast to the lower abdomen.

Formerly abundant throughout its range in southern Texas (and still is in some areas), the scaled quail has declined drastically during the past 30 years. After hearing continued reports from landowners of declining populations in South Texas, we decided to summarize data from the Breeding Bird Survey to assess the population status. Scaled quail have been declining at about 5% per year and are undergoing a range contraction westward towards the Rio Grande River. This represents the largest decline of this species across its range.

Surprisingly little research has been conducted on scaled quail in

### This Issue

South Texas Scaled Quail.....	1
By The Numbers.....	2
CKWRI News.....	2
Did You Know?.....	3
Wandering Whitetails.....	3
What Do They Eat?.....	4
Advisory Board.....	4

## By The Numbers

- 1,242 farthest recovery in miles of a white-winged dove, which was banded in Hidalgo County, Texas and recovered in Nicaragua (Texas Outdoors, September 2011)
- 10,800,000 number of deer hunters in the U.S. during 2006 that were over age 16 (estimated by U.S. Fish and Wildlife Service; Texas Wildlife, November 2010)



© Eric Grahmann

Scaled quail use brushy, arid habitat types on the Hixon and Storey ranches in South Texas.

South Texas. Only 4 research studies have been published on the species, and all of these occurred over 20 years ago.

The scaled quail population decline and a lack of general ecological information have stimulated our interest to learn about the factors that may be contributing to the scaled quail decline in southern Texas. This spring, CKWRI students Holley Kline, Blake Martin, and Ritchie Sinclair will begin studies in La Salle County on the Brown, Hixon, and Storey ranches. They will capture and radio-mark scaled quail to gather information that will provide insight into factors likely causing the decline.

Preliminary information obtained from the Hixon and Storey ranches suggests that clearing diverse brushlands and their associated grass and forb communities, along with the planting of exotic grasses such as buffelgrass and Old World blue-stems, may be contributing to the loss of scaled quail habitat. We doc-

umented that scaled quail on our study sites preferred diverse native brushlands and they frequently used areas located in transition zones between brushy arid uplands (gravel hills, saline flats, and other sparsely vegetated areas) and brushy drainages. Across all study sites, scaled quail were almost always found in areas dominated by short-statured native veg-

etation with abundant bare ground; they avoided plant communities dominated by exotic grasses. In addition, scaled quail did not cross landscapes dominated by buffelgrass when the width exceeded 200 yards.

Our pilot study also has provided unique insight into scaled quail ecology. For instance, no radio-collared bobwhites raised a single brood on the Hixon and Storey ranches during last year's drought (2011). However, scaled quail did. Another interesting observation is that all the scaled quail nests were found in prickly pear cactus.

Based on our preliminary findings, conserving large contiguous tracts of native rangeland dominated by naturally occurring short-statured herbaceous cover and high brush diversity, avoiding practices such as root-plowing and seeding of exotic grasses, and maintaining appropriate livestock grazing on rangeland dominated by exotic grass likely will be important practices for scaled quail in South Texas.

In the next couple of years, we hope to provide wildlife managers with important information regarding best management practices for this species.

Scaled quail may not be the most popular game bird, but they can provide recreational opportunities during times when northern bobwhite populations are low. In the future, if someone asks whether you "got the blues?", we hope that instead of recalling BB King's tune, *The Thrill is Gone*, you will answer "Yes, let me grab my running shoes and shotgun!" ~

## CKWRI NEWS

### Grad Students Win Awards

The Texas Section of the Society for Range Management recently held their annual meeting October 10–12th in Fredericksburg, Texas. At the meeting, several CKWRI graduate students were recognized for their professional accomplishments and participation in various event-sponsored activities. **Eric Grahmann** placed 1st in the Plant ID competition in the professional and graduate student category, 1st place in the Young Professional Poster competition, 1st place in the Plants Category of the photo contest, and 1st place in the Horseshoe Tournament. **Steven Goertz** placed 1st in the Washer Tournament. Both **Eric Grahmann** and **Steven Goertz** received 2nd place for their effort on the Graduate Ranger Relays. ~



Eric Grahmann (center) and Steven Goertz (right) receiving one of their awards from Ken Cearley, past president of the Texas Section of the Society for Range Management.

## Buddy and Ellen Temple Honored

Our very own CKWRI Advisory Board member **Buddy Temple** and his wife **Ellen** were recognized for their land stewardship and conservation education activities by the Texas Wildlife Association, receiving the *Texas Big Game Awards (TBGA) Landowner of the Year Award*.

The Temple's acquired the ranch in 1992, which is located in Duval County, and have focused their efforts on wildlife management using prescribed fire, roller-chopping, mechanical and chemical brush control, grazing, and hunting. Under the guidance of ranch manager **Robert Sanders**, the property is teaming with wildlife.

The Temple Ranch has a conservation education program, directed by Facilities and Outreach Manager **Jenny Sanders**, which provides



Courtesy Justin Dreibilbis, Texas Wildlife Association

**Buddy and Ellen Temple (back left), Robert and Jenny Sanders (back right), and Karina Chavarria, Hannah Hall, Caroline Nunley, and Karina Engeling (front L to R) relaxing at the Temple Ranch in Duval County.**

on-site events for schools, clubs, and conservation organizations. In addition, Texas Parks and Wildlife, various universities, and CKWRI personnel conduct wildlife research on the ranch. The CKWRI congratulates **Buddy and Ellen Temple** for receiving the *TBGA Landowner of the Year Award*. ~

Editor's Note: For full write-up on the Texas Big Game Awards (TBGA) Landowner of the Year Award see [http://www.texas-wildlife.org/images/uploads/LOTY\\_2012\\_Winner\\_Temple\\_Ranch.pdf](http://www.texas-wildlife.org/images/uploads/LOTY_2012_Winner_Temple_Ranch.pdf).

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## WANDERLUST IN WHITE-TAILED DEER

by David G. Hewitt

Autumn deer surveys are done and you have selected bucks for harvest and bucks that will get a pass until next year. Perhaps your preseason observations have even helped you to pattern bucks so that when the hunt begins, you know where to look. Now that its hunting season, much of that preseason effort seems less valuable. Deer that hadn't been seen before show up and bucks watched throughout the summer and fall disappear. Bucks have developed a case of wanderlust.

To better understand buck movements during the rut, Dr. Aaron Foley, a former CKWRI graduate student, placed Global Positioning Systems (GPS) collars on over 100 bucks. He found bucks at least 2-years old increased their movements during the rut, but that most movements were within the buck's home range. One interesting exception was that nearly all mature bucks made excursions outside their home range during the rut. During an excursion, bucks may travel 2 or more miles outside their home range, but would return within 24 hours. Bucks may increase excursions during rut to tend or chase a doe in estrus.

Deer managers typically have some understanding of mature buck movements during rut because these bucks are often recognized by their antlers. In contrast, individual yearling bucks may not be recognizable

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**Bucks increase their movements from November-January because of breeding and dispersal behaviors.**

and, therefore, many people do not realize that the largest movements made by deer are not by mature bucks, but by yearling bucks. Yearlings disperse from the area where they spent their first year of life to reduce the chances of in-breeding and competing with close relatives.

Yearling bucks typically leave their natal area at the beginning of the rut and establish a new home range by late winter. In a study conducted by Evan McCoy when he was a CKWRI graduate student, yearling bucks in the western part of South Texas left their natal home range and established a new home range about 3 miles away, whereas in the eastern part of South Texas, they averaged about 5 miles. The longest dispersal distance Evan documented was a buck that was struck by a vehicle 9 miles from its natal range.

Not all yearling bucks disperse. In Evan's study, about 50% of the yearling bucks dispersed. On one ranch, spike-antlered bucks were less likely to disperse than fork-antlered bucks, possibly because fork-antlered yearlings may appear more sexually mature, thus attracting the attention and aggression of larger

### Did You Know?

Researchers have identified 2 distinct populations of mountain lions in Texas, one in west Texas and one in South Texas.

Tarantulas are nocturnal hunters, spending the daytime under rocks and other hiding places. (Spiders, J.A. Jackman and P.J. Hamman, TAES, L-1787)

bucks. Those bucks that did not disperse as yearlings often disperse at 2 years of age.

What are the implications of buck movements for deer management? Part of the answer depends on what your neighbors are doing, and part depends on the size of your property. If your neighbors are managing their deer with the same goals and harvest criteria as you, then yearling dispersal should not have a large impact; you will simply trade yearling bucks. Movement of mature bucks could influence where a buck is harvested. If your neighbors are harvesting fewer yearling bucks, then you may gain bucks through dispersal. If neighbors are harvesting large numbers of yearlings, then you will likely have fewer bucks after dispersal than before.

Obviously, the larger your property, the less likely buck movements will affect your management. However, property sizes need to be large to remove most dispersal effects. For example, on properties less than 25,000 acres, at least 50% of the

**Advisory Board**

The Advisory Board of the Caesar Kleberg Wildlife Research Institute provides leadership in all aspects of our work. We are indebted to them for their commitment to CKWRI and its mission.

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**Younger bucks tend to move around more than older bucks during fall.**

yearling bucks on the property will disperse off the property or spend at least some time on a neighbor's property. Thus, most people are managing deer with their neighbors.

Yearling dispersal has other implications. Body size and antler characteristics are often used to assess the condition of deer. If yearlings are harvested after the main dispersal period, they may be telling you more about conditions on your neighbors' place than yours. Surveys conducted before dispersal are unlikely to give an accurate picture of yearling bucks on your property after the hunting season. This is important because the yearling bucks that settle on your property will become the mature bucks.

Dispersal of yearling bucks may also frustrate attempts to manipulate genetics of a deer herd because dispersing deer will be introducing genes from outside your property.

Wanderlust of bucks during winter has important management consequences and is part of the mystery enjoyed by hunters during this magical time of the year. ~

### What Do They Eat?

The piping plover consumes worms, beetles, spiders, crustaceans, snails, and small marine animals. (Piping Plover, TPWD Leaflet D0200-849C)

The cactus mouse forages mainly on seeds of annuals, mesquite beans, and hackberrys, but will eat insects and green vegetation.

(The Mammals of Texas, W.B. Davis and D.J. Schmidly, TPWD)

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