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Dominant Stand of Old World Bluestem © Eric Grahmann

MANAGING THE PROBLEM OF INVASIVE GRASSES

by *Scott L. Mitchell*

If you are a seasoned landowner, you have seen the evolution in approaches to address brush invasion over the years. Starting in the 1930s, landowners engaged in “brush eradication” or “brush control.” In the mid-1970s, it became “brush management.” The latest iteration is “brush sculpting.”

Editor’s Note: Mr. Scott Mitchell is the Research Invasive Grass Specialist for the Caesar Kleberg Wildlife Research Institute.

The tools and methods have not changed that much, but the perception and knowledge about brush have changed. We came to realize that it is impossible to eradicate brush, and began “managing” brush to improve wildlife habitat.

This is not an endorsement that the same philosophy can or should be applied to invasive grasses, nor does this mean that we will come to view their aggressive presence as a valuable part of the ecological landscape in South Texas. However, invasive grasses aren’t going away anytime soon; in fact, the problem seems to be growing exponentially.

While there is no “one size fits all” approach to invasive grasses, landowners who manage for wildlife should be proactive. As with any land management decision, the answers will be different depending on the goals for land use (i.e., grazing livestock, wildlife habitat, energy production, or combinations of these). Below are some basic approaches that seem to be universal for any land use.

1. Identify and Monitor – The presence of one or more species of invasive grass on your property is a high probability. It is important to be able to identify these species, and to know how they become established and spread. Once you have identified the culprit, keep an eye on it to see whether it is spreading.

Tanglehead makes a good case study. In sandy and sandy loam soils, tanglehead is extremely aggressive, whereas its presence in tight or shallow soils generally tends to remain static. On the other hand, Old World

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By The Numbers

- 8–10 length in inches of the adult Texas spiny lizard (Guide and Reference to the Crocodilians, Turtles, and Lizards of Eastern and Central North America North of Mexico, R.D. Bartlett and P.P. Bartlett, University Press of Florida)
- 51–65 wingspan in inches of the greater white-fronted goose (Handbook of Birds of the World, Vol. 1, del Hoyo et al., Lynx Edicions)

bluestems are much less selective and tend to be an aggressive invader almost everywhere.

2. Protect and Preserve – Native rangeland is a precious and increasingly scarce commodity that should be protected and preserved. Native rangelands will always be susceptible to invasive grasses. Early detection of invasive grass within native areas provides the landowner the best chance for control. Remember the old adage, “An ounce of prevention is worth a pound of cure.”

If detected early on, invasion by these grasses can often be controlled with individual plant treatments (IPT), which require minimal time and financial commitments. If left untreated, these native areas are at high risk of becoming unwanted invasive grass monocultures. Control then becomes a long-term and costly venture.

3. Avoid Disturbance – Soil disturbance tends to encourage invasive grass establishment in South Texas. While disturbance of the soil is not completely avoidable in certain situations, measures to restore native vegetation

immediately after disturbance offers the best chance of limiting the establishment of unwanted species.

Areas that are heavily infested with invasive grasses pose a completely different approach. Control of large areas that have been dominated by invasive grasses for extended periods of time will require significant inputs to restore a diverse native community.

The landowner will have to develop a strategy for control of the affected area, as well as the buildup of seed in the soil. This requires a multi-year commitment. If control and restoration are not an option, the approach is to limit their impact.

One of the most effective and economical management tools is the use of cattle. Cattle grazing offers the best option to break up dense invasive grass monocultures, limit seed production, and the hoof trampling action by the livestock will actually promote forb growth, which is beneficial to both livestock and wildlife.

Although not as certain as death and taxes, the impact of invasive grasses on South Texas rangelands—like the impact of woody

plant encroachment—has potential long-term consequences. Today’s proactive management approach to the problem, guided by sound science and focused on practical goals, is the best strategy to ensure that the “Last Great Habitat” can be enjoyed by the next generation. ~

CKWRI NEWS

Chris Kleberg Joins CKWRI Advisory Board

A native of Kingsville, Chris Kleberg is currently Senior Vice President with Capital Bank, an SGB Community Bank based in El Paso, Texas. Mr. Kleberg has been at Capital Bank since November 2010 and has more than 10 years of experience in real estate and financial analysis. Prior to joining Capital Bank, he was a

Vice President at Borderplex Community Trust in El Paso where he was responsible for acquisitions, asset management, and investor relations. Previously, Mr.



Mr. Chris Kleberg was recently added as a CKWRI Advisory Board member.

Kleberg was a Real Estate Portfolio Asset Manager with Macfarlan Capital Partners in Dallas, as well as a Senior Consultant in the real estate advisory division of Ernst & Young.

Mr. Kleberg holds a Bachelor of Arts degree in History from Washington College, and a Master of Business Administration degree from the Edwin L. Cox School of Business at Southern Methodist University. He currently serves as an El Paso Advisory Board Member for the STARS Foundation, and is a Board Member of both the El Paso Opera and the El Paso Downtown Management District. Chris and his wife Kim have 3 children.



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Protecting diverse native rangelands from being converted to monocultures of invasive grasses should be a high priority.



Ken Leonard and his wife Tanya were instrumental in establishing the *Kenneth E. Leonard Fellowship for Livestock-Wildlife Research*, which is available to deserving graduate students at the CKWRI.

Fellowship for Livestock-Wildlife Research Established

We are pleased to announce the establishment of the *Kenneth E. Leonard Fellowship for Livestock-Wildlife Research*. The endowment was provided by the Ken and Tanya Leonard family.

The Fellowship is endowed at the level of \$400,000 and will support one graduate student each year in perpetuity. The Fellowship’s goal is for the graduate student to study and report on the many relationships of wildlife in the context of the importance of cattle and their use as a tool for habitat management.

Ken was born in San Antonio in 1951 and at the age of 16, began working as a cattle buyer for L&H Packing Company while he was still in high school. Ken was named President and CEO in 1988 and served until his retirement in 2009.

Ken is an avid outdoorsman, a pastime he has enjoyed with his 2 sons Neal and Clayton. L&H has 2 ranches, the Cactus Jack near Encinal and the Guajillo near Pearsall. The Cactus Jack Ranch received the Lone Star Land Steward Award in 2001 from the Texas Parks and Wildlife Department.

In addition, Ken has faithfully served on the CKWRI Advisory Board since 1996. Ken and his wife Tanya reside in New Braunfels.

CKWRI is on Facebook

The CKWRI is on the forefront of research focusing on wildlife and habitat management. Want to know about what is happening? For the latest news, articles, and information about upcoming events at the CKWRI, it can be delivered right to your news feed; “like” us on Facebook today! We can be found under the Caesar Kleberg



Wildlife Research Institute. And, please share with your friends! Together, we can get the word out about our wildlife research activities occurring across South Texas. ~

BIRDS OF A FEATHER FLOCK TOGETHER!

by Thomas M. Langschied

As we approach the 2013–2014 winter season, what are the prospects for the birds we may see while out and about in the South Texas outdoors? Reviewing the data collected from the South Texas Wintering Birds project provides a good opportunity to evaluate the previous question.

Since the start of the project in 2005 and reviewing the 8 years of winter (November through March) data, there have been over 350 bird species reported in the South Texas

Editor’s Note: Mr. Tom Langschied is a Research Scientist at CKWRI and oversees the South Texas Wintering Birds Program.

region. The past 5-year average number of species was 262. It certainly shows South Texas has the birds in the winter!

The top 10 South Texas counties with the highest number of bird species reported during the winter include Kleberg (270), Nueces (222), Kenedy (212), Willacy (187), Jim Wells (178), Hidalgo (176), Brooks (163), Duval (152), McMullen (141), and Webb (139). As can be seen, numbers of South Texas bird species increase closer to the coast. This should be expected because of the diverse and abundant coastal wetland habitats and the regular food sources that are found there. The Texas coastline also plays a role in guiding and funneling bird movements during fall and spring migration periods.

Separating out 9 of the top 10 South Texas counties into groups of 3 and then defining them as eastern, central, and western further emphasizes the difference each area represents for bird species richness. Eastern (Kenedy, Kleberg, and Nueces) areas of South Texas totalled 294 species, central areas (Brooks, Hidalgo, and Jim Wells) had 233, and western (Duval, McMullen, and Webb) areas had 192.



© Thomas Langschied

The rock wren has made some unusual winter appearances in South Texas.

Did You Know?

Raccoons have a promiscuous mating system. (The Mammals of Texas, W.B. Davis and D.J. Schmidly, TPWD)

CKWRI researchers are working on 3 books: *Wintering Waterfowl* by Dr. Bart Ballard, *Ocelots* by Dr. Mike Tewes, and *Wildlife of Mexico* by Dr. J. Alfonso Ortega.

The greatest differences between the bird species groups among the 3 South Texas areas occurred with waterfowl (ducks and geese), shorebirds (plovers, sandpipers, etc.), gulls, terns, and warblers. Species numbers of shorebirds, gulls, and terns were over twice as high in coastal counties versus counties further inland. Species groups that were fairly similar among the 3 South Texas areas included wading birds (herons, egrets, etc.), raptors (kites, hawks, and falcons), wrens, and sparrows.

Despite the lower bird species numbers, western areas of South Texas have some species that are rare or absent further east. These include the Chihuahuan raven, black-tailed gnatcatcher, white-collared seed-eater, green-tailed towhee, black-throated sparrow, and house finch.

The rock wren represents one of the biggest surprises found in the South Texas Wintering Birds project. This species, according to most ornithological references, shows it as a western South Texas winter resident, yet most of the records for it are from

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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White-crowned sparrows are regular winter residents of South Texas.

eastern South Texas. Given its rather small size and lack of bright colors, this wren is easy to overlook despite its habit in winter of foraging and roosting around building structures in rural areas.

In looking to the upcoming 2013–2014 winter season, some of the first winter residents that should begin arriving in late October and early November include greater white-fronted goose, sandhill crane, northern harrier, eastern phoebe, Say’s phoebe, ruby-crowned kinglet, American robin, yellow-rumped warbler, and white-crowned sparrow. If these bird species are unfamiliar to you, consider reviewing their coverage in CKWRI’s publication **A Guide to Bird-watching and South Texas Wintering Birds** (for a color PDF version, please visit the CKWRI website at <http://www.ckwri.tamuk.edu> and look under special publications).

So, this winter, get out and notice those birds that can be found in your area. Whether you’re driving through your property or sitting in a deer stand, I think you will be quite surprised at what you’ll find. ~

What Do They Eat?

About 60% of the American woodcock’s diet consists of earthworms, with the remaining comprising various insects. (<http://ruffedgrousesociety.org/Woodcock-Facts#bio>)

Fiddler crabs feed on algae, bacteria, fungi, and dead plant and animal matter. (Fiddler Crab *Uca rapax*, Texas Parks and Wildlife Coastal Wetlands leaflet)

Visit our web page at
<http://www.ckwri.tamuk.edu>



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