

SOUTH TEXAS WILDLIFE



A publication of the Caesar Kleberg Wildlife Research Institute
at Texas A&M University-Kingsville

Spring 2019
Volume 23, No. 1



Migratory Least Sandpiper

© Bart Ballard

INCREDIBLE JOURNEYS

by Jason Loghry and Bart Ballard

Each spring millions of shorebirds embark upon spectacular migrations from the wintering grounds to the high reaches of the Arctic. It is there, during the summer months, where they take advantage of greater day length, ample nesting habitat, and abundant food resources—conditions that are essential for successful breeding.

Editor's Note: Mr. Jason Loghry is an undergraduate student at Texas A&M University-Kingsville; Dr. Bart Ballard is a professor at Texas A&M University-Kingsville and the C. Berdon and Rolannette Lawrence Endowed Chair in Waterfowl Research at the Caesar Kleberg Wildlife Research Institute.

However, their amazing journeys are not without peril. Along migration routes, they are continuously challenged with changing and often fragmented landscapes, dynamic food supplies, and varying levels of predation risk. These challenges are in addition to the high energetic cost they have during migration.

Migration strategies vary among and even within species of shorebirds. Some species must overcome ecological barriers that require long, non-stop flights to cross. For instance, the bar-tailed godwit flies an astounding 7,000 miles non-stop across the Pacific Ocean from breeding areas in Alaska to wintering sites in New Zealand. For these and

many other migratory shorebird species, acquiring and storing adequate energy reserves to make a long, non-stop flight can be challenging. Thus, most species make stops along their migration route to rest and rebuild their energy reserves. These “stop-over sites” are essential to enable successful completion of the migratory journey. Optimal stopover sites are characterized by abundant prey resources and safe foraging areas.

Along the western Gulf Coast, the Laguna Madre is one of the most important stopover sites for shorebirds in the Western Hemisphere. It is a large coastal ecosystem of diverse habitats stretching for almost 250 miles along the coasts of southern Texas and northeastern Tamaulipas, Mexico. The Laguna Madre is bordered on its east by barrier islands that separate the lagoon from the warm waters of the Gulf of Mexico. It is one of the world's largest hypersaline lagoons and has vast expanses of wind-tidal flats. These

This Issue

Shorebird Migration.....	1
By The Numbers.....	2
CKWRI News.....	2
Did You Know?.....	3
Howling Coyotes.....	3
What Do They Eat?.....	4
Advisory Board.....	4

tidal flats provide critical habitat for wintering and migrating shorebirds.

The tidal flats in the Laguna Madre provide foraging habitat crucial for thousands of shorebirds each migratory season. Species such as the short-billed dowitcher and dunlin are relatively abundant during spring, when they can be seen in massive numbers probing over slightly inundated tidal flats for prey. Visual foragers such as black-bellied plovers can be seen over exposed tidal flats with their stop-run-peck behavior on display. And, the larger yet elegant American avocet, often recognized by its long upturned bill, can be observed foraging in groups using a sweeping-like motion of their bill as they feed in the shallow waters.

The above mentioned species all rely on the Laguna Madre for refueling during their migratory journeys. The dunlin, which weighs less than a tennis ball on average, will migrate across North America to breed in northern portions of Manitoba and Quebec. Black-bellied plovers fly even further north to the dry tundra ridges and knolls of the high Arctic. Short-billed dowitchers migrate to the grassy tundra west of the Hudson Bay, and American avocets will strategically take a shorter route, with some breeding at ephemeral ponds and lakes of the northern Great Plains.



© David Newstead

Large migratory flocks of shorebirds can be seen on the Laguna Madre.

Although the previously mentioned species are often observed during migration, they have not received much study during migration along the Texas coast. Consequently, we know very little about their migration ecology along the Texas coast.

As coastal areas become fragmented and degraded through human impacts, an understanding of the distribution and quality of the remaining stopover sites is critical for conservation strategies. The Laguna Madre, in particular, supports hundreds of thousands of shorebirds during migration. Research at the Caesar Kleberg Wildlife Research Institute is investigating the contribution of the Laguna Madre of Texas towards the spring migration ecology of shorebirds. ~

CKWRI NEWS

CKWRI Shines at this Year's TCTWS Meeting

Research by Caesar Kleberg Wildlife Research Institute (CKWRI) scientists was on display at the 55th annual meeting of the Texas Chapter of The Wildlife Society (TCTWS), which was held February 21–23 in Montgomery, Texas. Overall, 22 of 77 (29%) scientific oral presentations and 37 of 78 (47%) scientific poster presentations were made by

CKWRI researchers and graduate students and undergraduate students involved in studies at the CKWRI.

At the awards ceremony, several CKWRI scientists received recognition for their professional achievements. **Drs. David Hewitt, Fred Bryant, Charlie DeYoung, Randy DeYoung, and Clayton Hilton,** along with an additional 10 coauthors from around Texas, received the *Best Popular Article* award for their article “*Things You May Have Heard About Chronic Wasting Disease.*”



Courtesy TCTWS

David Hewitt received the award for *Best Popular Article* from outgoing TCTWS president Jena Moon.

The article came out in 2018, appearing in the Texas Wildlife Association’s (TWA) *Texas Wildlife* magazine, along with an online version on the TWA website (<https://www.texas-wildlife.org/resources/publications/things-you-may-have-heard-about-chronic-wasting-disease>). It also appeared in *Fair Chase* magazine.

Dr. Bart Ballard was the recipient of the *Honorary Life Member* award in recognition of his accomplishments as a wildlife researcher and his outstanding service to the TCTWS, serving as vice-president, president-elect, and president.



Courtesy TCTWS

Bart Ballard received the *Honorary Life Member* award from outgoing TCTWS president Jena Moon.

Dr. David Wester was recognized for his service to higher education, receiving the *Educator of the Year* award. David was a fac-

By The Numbers

- 9 maximum length in feet of the bull snake making it one of the longest snakes found in Texas (Texas Snakes: A Field Guide, J.R. Dixon and J.E. Werler, University of Texas Press)
- 50 current estimate by the U.S. Fish and Wildlife Service of the number of wild ocelots within South Texas (https://www.fws.gov/refuge/Lower_Rio_Grande_Valley/ocelots.html)

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



Courtesy TCTWS

David Wester received the Educator of the Year award from outgoing TCTWS president Jena Moon.

Brandon Palmer was awarded 3rd place in the graduate student poster competition with the presentation "Quantifying the Spatial and Temporal Distribution of Thermal Refugia for Northern Bobwhites Using an Unmanned Aerial Vehicle," which was coauthored by CKWRI scientists Drs. Timothy Fulbright, Fidel Hernández, Humberto Perotto-Baldivieso, along with Dr. Eric Grahmann (El Coyote Ranch), Michael Hehman (Hixon Ranch), and Dr. Jinha Jung and Anjin Chang (Texas A&M University-Corpus Christi).

Jason Loghry was awarded 2nd place in the undergraduate student poster competition. Jason's presentation "Wetland Use and Characterization of Mexico Wetlands Used by Wintering Midcontinent Greater White-fronted Geese" was coauthored by Dr. Bart



Courtesy TCTWS

Jason Loghry being congratulated for 2nd place in the undergrad poster contest by outgoing TCTWS president Jena Moon.

ulty member at Texas Tech University before coming to Texas A&M University-Kingsville and the CKWRI.

Brandon Palmer was awarded 3rd place in the graduate student poster competition with the presentation "Quantifying the Spatial and Temporal Distribution of Thermal Refugia for Northern Bobwhites Using an Unmanned Aerial Vehicle," which was coauthored by CKWRI scientists Drs. Timothy Fulbright, Fidel Hernández, Humberto Perotto-Baldivieso, along with Dr. Eric Grahmann (El Coyote Ranch), Michael Hehman (Hixon Ranch), and Dr. Jinha Jung and Anjin Chang (Texas A&M University-Corpus Christi).



Courtesy TCTWS

Brandon Palmer being congratulated for 3rd place in the graduate student poster contest by outgoing TCTWS president Jena Moon.

Ballard, Ph.D. student Jay Von-Bank, and Kevin Kraai (Texas Parks and Wildlife). Each year, the CKWRI sponsors the Sam Beasom Memorial Scholarship, which is awarded to a deserving TCTWS student member. This scholarship was awarded to Mikayla House who is a M.S. student of Dr. Bart Ballard's and is studying shorebirds along the Texas coast. ~

Did You Know?
The western pygmy blue butterfly that occurs in Texas is considered to be the smallest native butterfly in North America. (www.butterflyinsight.com/unique-butterfly-the-most-unusual-amazing-butterflies.html)
The barred tiger salamander, found throughout Texas, is the largest land-dwelling salamander worldwide. (https://tpwd.texas.gov/huntwild/wild/species/tigersal/)

Ballard, Ph.D. student Jay Von-Bank, and Kevin Kraai (Texas Parks and Wildlife).

Each year, the CKWRI sponsors the Sam Beasom Memorial Scholarship, which is awarded to a deserving TCTWS student member. This scholarship was awarded to Mikayla House who is a M.S. student of Dr. Bart Ballard's and is studying shorebirds along the Texas coast. ~



Courtesy TCTWS

Mikayla House received the Sam Beasom Memorial Scholarship from outgoing TCTWS president Jena Moon.

THERE MUST BE DOZENS OF 'EM OUT THERE!

by Scott E. Henke

Sitting around a campfire with friends one evening discussing the day's events, we heard a coyote howl in the distance. The lone howl was answered by another howl from a different direction, followed by a yip-yap, and then another howl.

The campfire conversation quickly changed into a debate as to the number of coyotes we had heard. The calls came from 2 or 3 different directions, and the estimates of coyote numbers ranged

from 2 to 6 animals. Having worked with captive coyotes in the past on various rabies projects, I estimated the number of coyotes to be on the lower end of our speculated range, while an older gentleman, who was a long-time cattle rancher, guessed the coyote number to have been at least 6 animals. He laughed at my low guess, because to him, the number of coyotes was obviously due to the different styles of calls and different pitches of voice we had heard.

We had no way to determine who was right. However, being a wildlife researcher and more curious than a monkey named George, I spawned an idea that evening. Can people accurately discern the true number of coyotes that they hear howl? I returned home that evening and began to plan a study. I knew that coyotes have an elaborate repertoire of vocalizations including howls, yips, yaps, warbles, and laughs. I wanted to make sure I could record each type of call.

From past research endeavors, I had already built a kennel to hold coyotes. I purchased recording equipment and a 2-tone siren from an electronics store. Finally, I needed to capture coyotes. One-by-one I caught 4 coyotes. With each capture, I would transport the coyote to the kennel, play the siren to elicit the coyote to vocalize, and then record the calls. I made recordings of a single coyote, 2 coyotes, 3 coyotes, and 4 coyotes calling in harmony.

I took my recordings to local grocery stores and set up booths where I solicited store patrons to listen to a single recording wearing headphones and then guess the number of coyotes they had heard.

Editor's Note: Dr. Scott Henke is a research scientist at the CKWRI and Regents Professor and Department Chair of Rangeland and Wildlife Sciences at Texas A&M University-Kingsville.

Participants were not told how many coyotes were on the recordings. Lastly, I asked participants to complete a brief survey, which included information about their sex, age, residency status (urban, suburban, or rural), and if they were a rancher/farmer or had some other occupation. I surmised that people with farming and ranching backgrounds would be more accurate with their guesses, as would older and rural people because they would have more exposure to hearing coyotes howl than other groups.

From the 427 people who participated, I obtained some interesting results. Sex, age, residency type, nor occupation affected participant's perception as to the number of coyotes they perceived to hear. Participants were able to discern differences in the number of coyotes howling with the addition of each coyote. However, they consistently overestimated the number of coyotes. Participants believed they

Advisory Board

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

Chad Auler Gus T. Canales T. Dan Friedkin Henry R. Hamman Jeff Hildebrand Karen Hunke A. C. "Dick" Jones, IV	David W. Killam <i>(Chairman)</i> Mason D. King Chris C. Kleberg Tio Kleberg C. Berdon Lawrence Tim Leach Kenneth E. Leonard	James A. McAllen Ellen B. Randall Barry Coates Roberts Stuart W. Stedman Ben F. Vaughan, III Bryan Wagner Charles A. Williams
--	---	---



© Brian Loflin

Coyotes have a variety of vocalizations, which make it difficult to determine exactly how many are actually calling.

heard up to 5 coyotes when they actually heard 1 or 2 coyotes, up to

8 coyotes when the true number of coyotes calling was 3, and as many as 12 coyotes when they actually listened to 4 coyotes howling. Only about 10% of the participants guessed the correct number of coyotes from the recordings.

It's apparent that perceptions of coyote numbers are exaggerated due to the variety of calls. But, don't feel bad if you belong to this group of over-estimators. Coyotes are considered 'tricksters,' and this Beau Geste effect is believed to be used to convince rivals that their numbers are greater than they truly are.

During the next campfire get-together with my rancher friend, I told him what I had found. He just smiled and said he would have been in the 10% who were right. So, I guess we heard 6 coyotes during that first campfire. ~

Consider giving a tax-deductible donation to CKWRI

What Do They Eat?

American kestrels feed on insects (preference for grasshoppers and crickets), mice, skinks, and small birds. (Handbook of Birds of the World, Vol. 2, del Hoyo et al., Lynx Edicions)

The big free-tailed bat is an insectivore, foraging on moths, flying ants, stink bugs, beetles, leafhoppers, grasshoppers, and crickets. (The Mammals of Texas, W.B. Davis and D.J. Schmidly, TPWD)



Caesar Kleberg Wildlife
 Research Institute
 700 University Boulevard
 MSC 218
 Kingsville, Texas 78363-8202

Editor: Alan Fedynich, Ph.D.

SOUTH TEXAS WILDLIFE is printed on recycled paper

