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Student Collecting Bird-Window Collision Data

FACTORS IN BIRD-WINDOW COLLISIONS

by Delanie E. Slifka and April A. Torres Conkey

It is estimated that over 1 million birds are killed annually resulting from collisions with buildings. Birds can collide with buildings for a number of reasons, but reflective windows and night lighting are thought to be major causes for birdwindow collisions.

Research has shown that large buildings with many windows are more likely to incur bird deaths than smaller buildings with fewer windows. However, these studies have primarily been conducted and analyzed on a local scale. Currently, we do not understand how the landscape at large spatial scales affects bird-window collisions, prompting the need for a collaborative study spanning larger geographical areas.

In 2013, Dr. April Conkey and undergraduate students in the Human-Wildlife Conflict Resolution course at Texas A&M University-Kingsville (TAMUK) began participating in

collaborative bird-window collision surveys occurring on campuses across North America that Dr. Stephen Hager from Augustana College, Illinois instigated and the Ecological Research as Education Network helped to organize. For 21 consecutive days each fall semester (2013–2018), TAMUK students used a standardized protocol to survey 5 TAMUK campus buildings for bird carcasses.

As part of this collaboration, data from 2014 were compiled from 281 buildings at 40 college campuses and the resulting information published in the journal Biological Conservation (Volume 212, Part A, August 2017, pages 209-215). TAMUK was the only campus in Texas that contributed to this study.

Findings from just the 2014 data alone indicated that 342 individual birds (of 71 species) were found dead across the 40 campuses surveyed (with an average of 8 bird-window deaths per campus). Of these, 99%

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116	Issue
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Bird-Window Collisions	1
By The Numbers	2
CKWRI News	2
Did You Know?	3
Reflections on 2018	3
What Do They Eat?	4
Advisory Board	4

Editor's Note: Ms. Delanie Slifka is a M.S. student at Texas A&M University-Kingsville through the Caesar Kleberg Wildlife Research Institute studying bird ecology on the East Foundation ranches and was a member of the 2017 bird-window collision survey team. Dr. April Torres Conkey is an assistant professor at Texas A&M University-Kingsville and research scientist at the Caesar Kleberg Wildlife Research Institute.



© Cole McNeese and Vincent Rolando

A common yellow-throat found during the 2014 survey at the Human Sciences building courtyard on the Texas A&M University-Kingsville campus.

of the birds were songbirds and 91% were migratory songbirds. The study concluded that large buildings in rural areas, with large lawns and few structures around them, had higher bird deaths than urban buildings of similar size and window area, while small buildings consistently had low bird deaths.

In 2014 at TAMUK, 7 birds were found dead with at least 1 death occurring at each building surveyed. Species found were the redeyed vireo, common yellow-throat, Lincoln sparrow, house sparrow, and an unidentified dove and warbler.

Our findings at TAMUK differ from most bird-window collision studies in that there is a more even split between resident and migratory species. In the past 5 years (2013– 2017), we found resident species made up 58% of the bird mortalities and most of these were ground foraging birds such as white-winged doves and great-tailed grackles.

While most buildings at TAMUK cause 1 bird death per month during the fall migration period, 62% of bird-window collisions occur at the Student Recreation Center (SRC).

The SRC has several characteristics that contribute to bird deaths including large windows, large lawns around and near the building, and inside flood lamps that are on all night. The Business Administration building (BUSA) was added to the 2018 TAMUK survey. The results are still being checked, but the mortality count is higher than average this year with the addition of mortalities at the BUSA, which has 2 large glass entryways on the east-facing side of the building.

There are several measures that can be implemented to mitigate birdwindow collisions. Stickers can be placed on windows to break up the reflection. This can help the birds differentiate the natural landscape from window reflections. A second measure is to turn off both interior and exterior lights at night, especially during fall and spring migration. Lastly, citizens can assist by



© Angelica Arredondo

Birds can be tricked by reflections on windows and fly into them by accident.

documenting bird-window collisions in their area and reporting them to our page on the iNaturalist website or app (https://www.inaturalist. org/projects/tamuk-bird-windowcollision-project). ~

By The Numbers

- 5 number of times a monarch caterpillar sheds its skin before spinning its pupa (https://www.monarch-butterfly.com/monarch-butterfliesfacts.html)
- 225 heart rate in beats per minute of a resting ruby-throated hummingbird (https://nationalzoo.si.edu/migratory-birds/hummingbirds.)

CKWRI NEWS

Donors Recognized

We are pleased to announce that the CKWRI is a designated recipient of estate intentions from 2 families of distinguished philanthropists, **Tio** and **Janell Kleberg** and **Chuck** and **Amy Schultz**.



Tio and Janell Kleberg receive *The Javelina Society* induction certificate from president Dr. Steven Tallant, Texas A&M University-Kingsville.

The Kleberg's have made provisions in their estate to support the CKWRI Wildlife Park Endowment and the Schultz's have intentions to support the CKWRI with a gift from their estate. As early adopters of planned giving to support Texas A&M University-Kingsville (TAMUK), both couples are Charter Members of *The Javelina Society*.

The Javelina Society honors alumni and friends who make a



Chuck and Amy Schultz (center) receive *The Javelina Society* Charter Member recognition certificate. With Chuck and Amy are Brad Walker, V.P. for Institutional Advancement (far left), TAMUK President Steven Tallant (second from right), and General Ricardo Sanchez (ret.), TAMUK Foundation Board Chair.

Visit our web page at http://www.ckwri.tamuk.edu commitment to TAMUK by will, revocable living trust, life insurance, life-income gift, retirement account designation, or another deferred gift arrangement of any amount. As members of *The Javelina Society*, this special group of forwardlooking donors is partnering with TAMUK to financially secure the university for generations to come.

We at the CKWRI are honored by the support of the Kleberg's and the Schultz's that will benefit the CKWRI well into the future.

Bandon Dunes Charity Golf Trip A Huge Success

Thanks to **Jim Wikert** and **Tio Kleberg**, we had 14 golfers participate in our charity golf trip. Bandon Dunes Golf Resort in Oregon is one of the premier golf destinations in



Fourteen individuals participated in the charity golf trip to Bandon Dunes Golf Resort to raise funds for the CKWRI.

the world. Participants traveled by private jet and played golf for 5 days on 4 different courses. The weather was amazing and the setting unbe-



The Oregon coast, along the golf course at Bandon Dunes, is absolutely breathtaking. Many are reminded of the fabulous courses in Scotland.

Did You Know?

In 1972, the EPA banned DDT and placed restrictions on other organochlorine pesticides, which aided in the recovery of the brown pelican population.

"The deer mouse [*Peromyscus maniculatus*]...is the most widely distributed and abundant mammal in North America." (White-footed and Deer Mice, R. Timm and W. Howard, Prevention and Control of Wildlife Damage-1994)



(L-R) Ed Austin, Mike Mewhinney, Jim Wikert, and Tio Kleberg enjoying the golf course and the sunshine at Bandon Dunes.

lievable. Many say Bandon Dunes is the Scotland of the Americas.

Jim and Tio are talking about a trip next year and we hope to double the number of golfers to 28. It was a financial success for the CKWRI in that the golf outing raised over \$130,000.

Thank you to those who were able to go on this once-in-a-lifetime adventure to benefit the CKWRI. \sim

MAGICAL MOMENTS

by David Hewitt

Everyone with a passion for wildlife and the outdoors has experience with magical moments. One of my recent magical moments occurred late this summer in my backyard when I stepped into the golden light of the evening sun to soak up the clean, pleasant air after a brief rainstorm. The light and clouds were beautiful, but what brought magic to the moment was the thousands of American snout butterflies drifting past me, some skimming the ground, some brushing the treetops, and others so high I could barely see them.



© Brian Loflin

American snout butterflies have large hatches in South Texas.

Other magical moments for me include those hunting trips with the right mix of wonderful company, a stunning landscape, lovely weather, and challenging quarry that fill your game bag. Or those days in the spring when a front passes and the north wind brings cool, pleasant air and causes migrating birds to drop from the sky. On such days, bird species not normally seen in South Texas magically appear and even hard-core bird watchers might see and add a new species to their bird checklist. Then there are those instances when a special critter, perhaps a deer fawn, bobcat, or goldencheeked warbler materializes from the brush, stepping into the perfect light and posing as my camera softly clicks. And, what could be more magical than a covey flush ahead of your favorite bird dog?

What are your magical moments? What experiences bring a contented smile when you remember them? Perhaps it is the glow on your child's face as they retrieve their first dove?

Editor's Note: Dr. David Hewitt is the Leroy G. Denman, Jr. Endowed Director of Wildlife Research at the Caesar Kleberg Wildlife Research Institute.



© David Hewitt

The anticipation felt when climbing into a deer blind at dawn is addicting.

Or the anticipation while sitting in a deer blind. watching the horizon lighten and noticing the vague signs of movement at the edge of the brush. which you know means that deer are stirring. Such moments are as rare as they are enriching and

that is why those

of us with a passion for wildlife and the outdoors head afield repeatedly seeking them. These moments are a motivating force for those of us at the CKWRI. Our supporters know that our students and scientists understand the importance of magical moments to our quality of life. They also recognize that if we are to enjoy more such moments, and even

Chad Auler Gus T. Canales T. Dan Friedkin Henry R. Hamman Jeff Hildebrand Karen Hunke A. C. "Dick" Jones, IV



© Brent Brooks

Memories from 3 generations of hunters

more important, if our children and

their children are to experience their

spending time afield are priceless.

Advisory Board

The Advisory Board of the Caesar Kleberg Wildlife Research Institute (CKWRI) provides leadership in

James A. McAllen Ellen B. Randall **Barry Coates Roberts** Stuart W. Stedman Ben F. Vaughan, III Bryan Wagner Charles A. Williams

own magic moments, wild places and wildlife will need to be managed and conserved.

With the coming of a new year, reflect back on your magical moments. But don't stop there. Make plans to do more outside and to involve your family and friends. We need people to pursue the magic of wildlife and the outdoors because such people develop the passion necessary to manage and conserve wildlife and the places that support it. So, here's to many happy outings in 2019! ~

What Do They Eat?

The Yuma myotis is considered to be an insectivore, feeding on various moths, hoppers, beetles, and flies. (The Mammals of Texas, W.B. Davis and D.J. Schmidly, Texas Parks and Wildlife Press)

The eastern mud turtle is an omnivore, eating fish, aquatic vegetation, insects, mollusks, crustaceans, and amphibians. (https:// nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=1267)

Consider giving a tax-deductible donation to CKWRI



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