

The Triumph of America's



White- Winged Dove

STORY AND PHOTOGRAPHY BY R. K. SAWYER





I remember seeing them as they moved up the Texas Coastal Plain toward the town of El Campo. Hundreds to maybe thousands of whitewings followed a major highway from south to north. I stopped the truck to call some friends, and I was pretty sure they wouldn't believe what I saw. They didn't. That week, I shot a limit of high-flyers nearby on the edge of a woodline, a place where I had never seen a single white-winged dove before. It was more than a decade ago, and what I witnessed was the beginning of not just an explosion in whitewing numbers, but a major geographic shift to areas far from their traditional breeding grounds in the Lower Rio Grande Valley (LRGV).

The white-winged dove was identified in the West Indies in the mid-1700s, and naturalist John James Audubon described it from the Texas LRGV in 1844. Divided into an Eastern and Western subspecies, the principal range of the Eastern population historically extended from Mexico into the Texas LRGV before each fall returning south along the Gulf of Mexico coast to winter in Central America. The Western subspecies' breeding range extended into Arizona, with a later expansion into California, New Mexico, and Nevada. This population migrated along the Pacific Coast to wintering grounds in southern Mexico.

Man's hand has caused wild swings in the range and numbers of whitewings over the past 125 years. And despite volumes of great science, most everything known about the Eastern white-winged dove distribution since the 1980s has changed. An example is this once accurate observation from Texas: "Unfortunately, [areas] lying north of the Lower Rio Grande Valley are much less attractive to whitewing doves." This region

Banded whitewing ready for release. Photo courtesy of The Caesar Kleberg Wildlife Research Institute.

Previous Page: Sunflower crops grown for the Texas 4-day special whitewing by El Campo outfitter La Casa De Palomas.



now holds most of America's whitewings. Unlike many other game birds, the resilience and adaptability of the little brown and gray bird, with its flashy white wing patch, are helping it thrive. This is the story of an American conservation success, in which most of the credit goes to the bird.

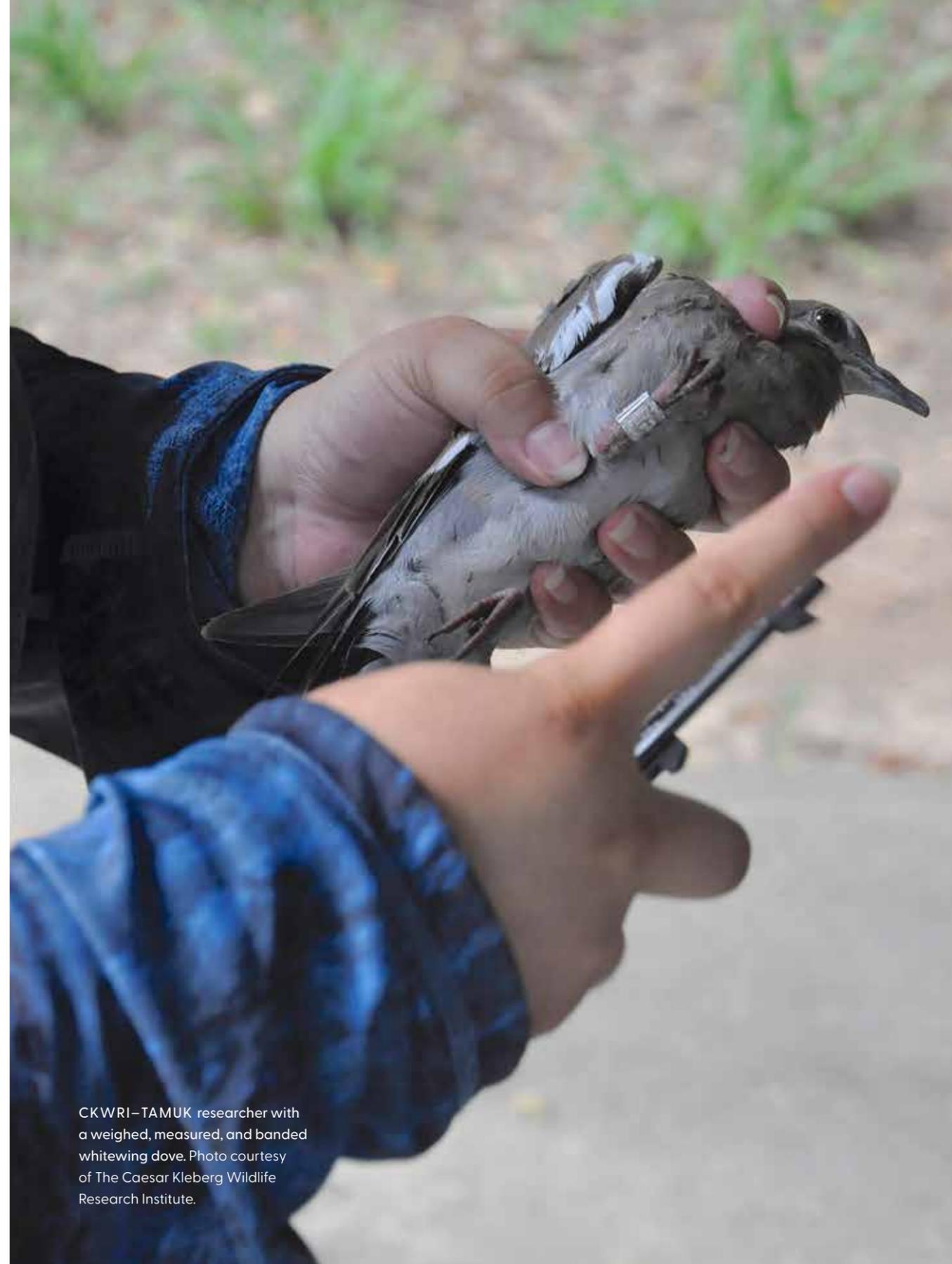
White-winged dove shooting at the beginning of the 20th century was a purely Southwestern sport, with Arizona at its early epicenter. As large-scale irrigation projects expanded the state's agricultural footprint in the Sonoran Desert between 1902 and 1911, whitewings swarmed into the Lower Gila River that winds through the Buckeye-Arlington Valley, near Phoenix. Together, man and nature provided the bird with a faultless mix of dense native mesquite nesting habitat adjacent to newly irrigated food crops.

By the mid-1910s, farmers were pleading for help as the birds devastated shocked wheat left standing in fields. The response came from hundreds of wingshooters who traveled by train from across the U.S., and it started a tradition with the white-winged dove as much a symbol of the state's wild places as the giant saguaro cactus that doves relied on for its fruit, nectar, and seeds.

The Buckeye-Arlington Valley was the most productive nesting area in Arizona's basin and range country. Other nesting colonies were at the Santa Cruz Crossing near Tucson, several close to Phoenix on the Salt and Upper Gila rivers, and in the western part of the state along the Colorado River in Yuma County. By the 1950s, the irrigated southern part of the state was a mosaic of cotton fields, citrus orchards, and grain fields bordering riparian habitat dense with mesquite and tamarisk. It was still ideal nesting habitat for whitewings, but also the most vulnerable to progress.

In the early 1960s, a little more than 30,000 hunters harvested nearly half a million Arizona whitewings each year before numbers peaked in 1968 at 740,000 birds. 1970 was a watershed year for the state. Until then, it was on the right side of the balance between native and introduced cover, with calories provided by irrigated crops. But its nesting grounds reached a tipping point after years of thicket burning and clearing and falling water tables. The daily limit of whitewings, which stood at 25 from 1918 until 1970, was reduced to ten.

By 1971, the annual harvest dropped to 300,000. From 1980 to 2008, it was about half of that, then in the past 12 years varied between 50,000 and 100,000. Until the 1980s, about 80 percent of Arizona's nesting whitewings began their southward migration to the Pacific coast of Mexico by early September. There has, however, been a recent increase in the number of resident birds that remain through winter.



CKWRI-TAMUK researcher with a weighed, measured, and banded whitewing dove. Photo courtesy of The Caesar Kleberg Wildlife Research Institute.

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California was another early wingshooting destination that, like much of the desert Southwest, owed its origin to massive irrigation projects of the early 1910s. Diversion of the Colorado River into the Salton Sink to irrigate crops in the Imperial Valley, infamous today as a political, conservation, and environmental calamity, was at first a benefit to some wildlife species. One was the white-winged dove that relocated from Baja California as abundant freshwater provided windbreaks, shade trees, and irrigated seed crops. Most of California's whitewings were historically confined to the Colorado River floodplain and the Imperial and Coachella Valleys in the Southern California counties of Imperial, Riverside, and San Bernardino.

California's whitewing shooting was first governed by the 1918 Migratory Bird Treaty Act (MBTA), which specified a two-week September season and a daily bag limit of 25 birds. The U.S. Biological Survey closed whitewing hunting in California in 1937, reopening the season in Imperial, Riverside, and San Bernardino counties between 1951 and 1956. Those counties were the hunting heart of the Golden State until the 2010s, when California adopted a statewide white-winged dove season. By then, the birds' range extended into the riparian desert and irrigated crops of Central and Northern California, particularly in the San Joaquin and Sacramento Valleys. California hunters harvested an annual average of 68,000 whitewings between 1992 and 2002 and 42,000 whitewings from 2013 to 2023.

The Chihuahuan Desert of southern New Mexico also had an early whitewing hunting history and, like California, was one of the states with a season permitted by the 1918 MBTA. By 1929, however, a game warden reported just "a few birds" in the southern part of the state, and in 1937 the U.S. Biological Survey closed New Mexico whitewing hunting. Twenty years later, an army of enthusiastic hunters took to the field when the season was reopened in 1957.

There are probably far more birds in the Land of Enchantment now than in the mid-1900s, their distribution following a landscape checkerboard tied closely to irrigation. In the southeast, it's along the Pecos River from Artesia to Carlsbad. Called "sand country," the terrain consists of caprock, brushy arroyos, shinnery oaks, and mesquite flats with circle-shaped irrigated crops. In the south-central portion, birds are concentrated along the Rio Grande from Socorro south to Las Cruces in the Mesilla Valley along a linear corridor of pecan trees, "backyard ornamental trees," and abundant waste grain and native seeds. There are also birds to the west, in the desert scrub and arroyos between Deming and Lordsburg, and south to Columbus.

During the 1980s, New Mexico whitewings expanded their range to the north and into the Estancia Valley of the Colorado Plateau near Albuquerque and along the San Juan River. While most of the nesting birds migrate south by early September, a resident population remains through winter and is growing. Between 2003 and 2023, New Mexico's annual hunter harvest averaged about 50,000 birds.

Texas whitewing sport hunting lagged behind other regions, and for good reason. Its birds were in the LRGV, a largely unsettled frontier far from America's urban centers. A railroad finally penetrated the Valley in 1904, terminating in a mesquite thicket that, after erection of a few houses and saloons, was fittingly named Six-Shooter Junction. Railroads spurred a new industry of citrus fruits and vegetable farms, but by 1910, the Valley was plagued by guerrilla raids from civil unrest boiling over in neighboring Mexico. It was a place that well-heeled wingshooters were wise to avoid, and for a long time, they did.

The Lone Star State's whitewing sweet spot was part of the Tamaulipas biotic province. The jewel in its crown was the Rio Grande floodplain, a greenbelt of whitewing nesting habitat of mostly ebony, huisache, retama, and mesquite brush. When water was first pulled from the river to grow citrus and farm crops, it made possible critical but localized food plots. For a while, the breeding-foraging balance helped the LRGV sustain whitewing numbers estimated at 4 to 12 million. Then everything got out of whack.

As the race to irrigate cropland in the LRGV began in the first half of the 1900s, ancestral whitewing nesting brushland habitat was in the way. Tens of thousands of acres were bulldozed. The scales tipped, and bird numbers tanked. The three-month hunting season in 1928 was cut to just five days by 1941. The shortened season dates were wisely selected to coincide with the narrow window between dove nesting and their southern migration and later became the basis

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Bottom Left: Banded whitewing ready for release. Photo courtesy of The Caesar Kleberg Wildlife Research Institute.

Bottom Right: Tools of the CKWRI—TAMUK trade—a GPS-GSM transmitter and leg bands. Photo courtesy of The Caesar Kleberg Wildlife Research Institute.



for Texas' celebrated annual September four-day special whitewing season.

With an area of over three million acres, it's a sorry testament that, by the 1960s, less than 4,000 acres of undisturbed LRGV native brush remained. Remarkably, it wasn't all bad news. Whitewings adapted to mature orange and grapefruit trees for their nesting needs, with their foraging needs met by remaining native seed grasses and irrigated crops like sorghum. Summer and

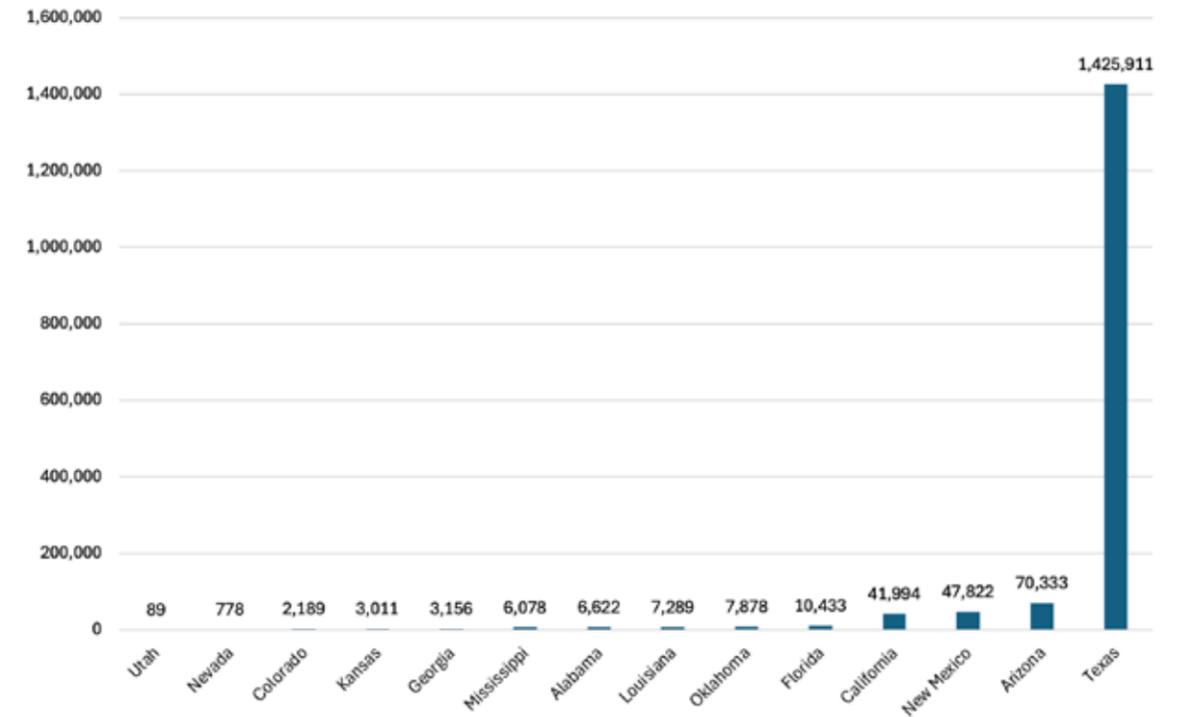
Historically, the LRGV whitewing dove hunting culture was unlike any other wingshooting sport in America.

fall flight forecast numbers rebounded. Of the estimated one million breeding doves in the LRGV in 1950, 80 percent now nested in citrus trees. Then the citrus trees froze. Whitewing numbers crashed again, and the special September whitewing hunting season was closed for three years.

Citrus crops were able to sustain mostly healthy nesting numbers until the 1980s. Then came more freezes. Texas Parks and Wildlife Department (TPWD) biologists expected the worst, and they got it. But researchers now had their eye on another trend. By 1983, whitewings were starting to nest as far north as San Antonio, extending their range into backyard oaks, elms, and pines. TPWD sanctioned a four-day season around San Antonio that year, with a limit of two. There was no turning back. The expansion was launched.

Most of the 1988 spring population of 408,370 birds was still nesting in the LRGV and San Antonio, but they were beginning to spread into Austin and other Central Texas urban areas. Biologists noticed something else. Many of the Central Texas expansion birds weren't migrating in the winter to Mexico and Central Amer-

2013 -23 Annual Average Hunter Harvest (From USF&WS)



ica. Three years later, the statewide regular dove season whitewing limit was raised from two to six, except ironically in the LRGV—where it all started—where the bag limit remained two.

By the mid-1990s, the Texas whitewing population hovered around one million birds, with about half nesting in colonies north of the LRGV. Of these, there were now four times more in urban areas than rural areas. By 2000, Texas's 2,500,000 whitewings occupied every part of the state except East Texas. Hunters could shoot ten a day during the special four-day whitewing season and 15 during the regular 60-day statewide season. Between 2013 and 2023, U.S. Fish and Wildlife Service (USFWS) surveys tallied an average of 126,611 whitewing hunters who totaled an annual seasonal harvest average of 1,425,911 birds. That's a lot of doves.

Historically, the LRGV whitewing dove hunting culture was unlike any other wingshooting sport in America. A 1930s-era writer described how hundreds of visitors filled its hotels, cafes, and, in a nod to the rising role of automobiles, its "filling stations." Hunters lined shoulder to shoulder mostly shot from within a few feet

of their parked cars. Dove barbecues sponsored by civic clubs, businesses, and private parties were a post-hunt ritual, their long wooden tables heaped with hundreds of birds over the legal limit. It was just the beginning.

Some 50,000 hunters converged on the LRGV for the special whitewing season each September in the 1960s. One town with a hotel that was designed to accommodate 5,000 guests overflowed with 13,500. Other hunters camped or slept in cars. Thousands of automobiles lined farm roads each day. In a single morning, 145 planes touched down at one municipal airport, and another handled 631 private planes and jets during the four-day season. Sporting goods manufacturers sent freight cars filled with shotgun shells.

LIFE magazine, once the ever-present coffee-table mirror to American lives, carried a photo feature on LRGV whitewing hunting in 1961. They nailed it. Against a backdrop of oversized Fords and Chevies parked on muddy palm-tree-lined roads, we see fathers, wives, kids, and friends all wielding shotguns. There's a woman in a plaid outfit with legs akimbo, her hair in curlers, trying to figure out the business end of a bor-



rowed gun. Another image captures the childhood ritual of their first bagged bird while other kids are racing into ditches, thickets, and fields to collect the kill. A section of bumper-to-bumper cars, all men and probably from a company or civic club, forms a gauntlet so tight it seems no bird could pass. Dove feathers are everywhere. No one considered skinning them. Those doves were a meal to celebrate, and great attention was spent on the care of each. Smiles. Laughter.

The media dubbed the LRGV sporting carnival “million-dollar dove hunting weekends.” That was an understatement. By the early 1980s, the special whitewing season filled Valley coffers to the tune of \$20 million. But by the 2000s, the number of hunters was about half what it was in the 1970s and 1980s. It’s not that there were fewer dove hunters. It was just that now, with whitewing numbers exploding across the state, they could shoot them closer to home.

This past summer, I was in the city park of a small Texas town as flocks of whitewings passed overhead, indifferent to ringing church bells and Tejano music blaring from a nearby car. I was there to observe a research team equip white-winged doves with small transmitters using GPS-GSM technology that enables them to determine locations via satellite and transmit these data in real time by cellular networks. The team prebaited each site, then introduced cage traps.

Trapped whitewings were weighed, measured, banded, then fitted with a transmitter weighing less than 3 percent of its body weight.

The groundbreaking study, led by Dr. Jennifer Smith of the Caesar Kleberg Wildlife Research Institute–Texas A&M University–Kingsville, aims to address annual white-winged dove movements, breeding biology, and habitat preferences across urban and rural landscapes. Owen Fitzsimmons, TPWD’s Webless Migratory Game Bird Program Leader, says, “We know very little about the annual ecology of urban whitewings compared to their counterparts in their traditional range. This is a first step in addressing some significant knowledge gaps that will improve our management of this increasingly important game bird.” As I peered at real-time flight data on a cell phone, I wondered what LRGV biologists from a hundred years ago would have thought about the modern research technology.

In addition to Texas, Eastern whitewing numbers have been increasing in Louisiana, Alabama, Florida, Oklahoma, Mississippi, Missouri, and Kansas. Florida was one of the first expansion states to sanction a whitewing hunting season, authorizing a four-bird limit in 1982. The origin of the Sunshine State whitewings is more lore than fact. There’s a version that they came from Cuba and another has them introduced

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Above Right: Graduate student Mari Wharf of CKWRI–TAMUK with trapped doves that will be banded and fitted with GPS–GSM devices. Photo courtesy of The Caesar Kleberg Wildlife Research Institute.

from either Mexico in 1959 or Venezuela in the 1960s. Their current distribution encompasses the entirety of the state’s ecoregions, an expansion attributed not just to the Florida population but also to an influx of Texas birds. Florida hunters harvested an annual average of 10,433 whitewings between 2013 and 2023.

By 2013, 14 U.S. states enacted whitewing hunting seasons within established USFWS management guidelines. I suspect we’ll soon see some stories flow from the pens of journalists who follow the increasing number of birds throughout their old and new range, and it’ll be against a backdrop of Florida palmettos, Texas oaks, Nevada red sandstones, or the Colorado and Kansas plains. And other areas. They’re coming. The whitewing’s success story is a victory for the wingshooter as well as the bird.

It’s the September special whitewing season in Texas again, and it’s hot. Really hot. Cars line farm roads outside every little and big town. Iced coolers surround barbecues as they billow smoke from perches in truck beds, family backyards, and brightly colored portable company tents. The hunters are here for whitewings that leave city roosts to head for nearby food plots planted mostly by outfitters who invest big dollars and long hours preparing for the annual four-day whitewing season. It’s not quite the circus that was the LRGV of years ago, but it’s close. And it’s everywhere in the state now. 🌞