



Texas Parks and Wildlife Department

Dove Population Status - 2024



O. N. Fitzsimmons

Wildlife Division, Texas Parks and Wildlife Department

August 2024

BACKGROUND

On average, Texas accounts for 30% of the total mourning dove harvest and 87% of the total white-winged dove harvest in the United States each year. Approximately 300,000 hunters take the field in Texas annually, resulting in a yearly economic impact of \$316 million (\$478 million when adjusted for inflation) (Southwick and Allen 2007).

Regular monitoring of dove populations is essential to effectively managing and conserving such an important recreational and biological resource. Since 2008, Texas Parks and Wildlife Department (TPWD) has conducted rural and urban dove surveys using distance sampling (Buckland et al. 1993) each May-June to estimate annual spring breeding abundance, except for 2020 when surveys were cancelled due to restrictions from the COVID-19 pandemic. This report provides updated results on the status of breeding dove populations in 2024. Estimates are calculated and reported by Bird Conservation Region (BCR) (Bird Studies Canada 2014, US NABCI Committee 2000) in Texas (Figure 1). A comprehensive report that includes survey results from 2008-21 and detailed descriptions of survey and analyses methodologies was released in 2021 (Fitzsimmons et al. 2021).

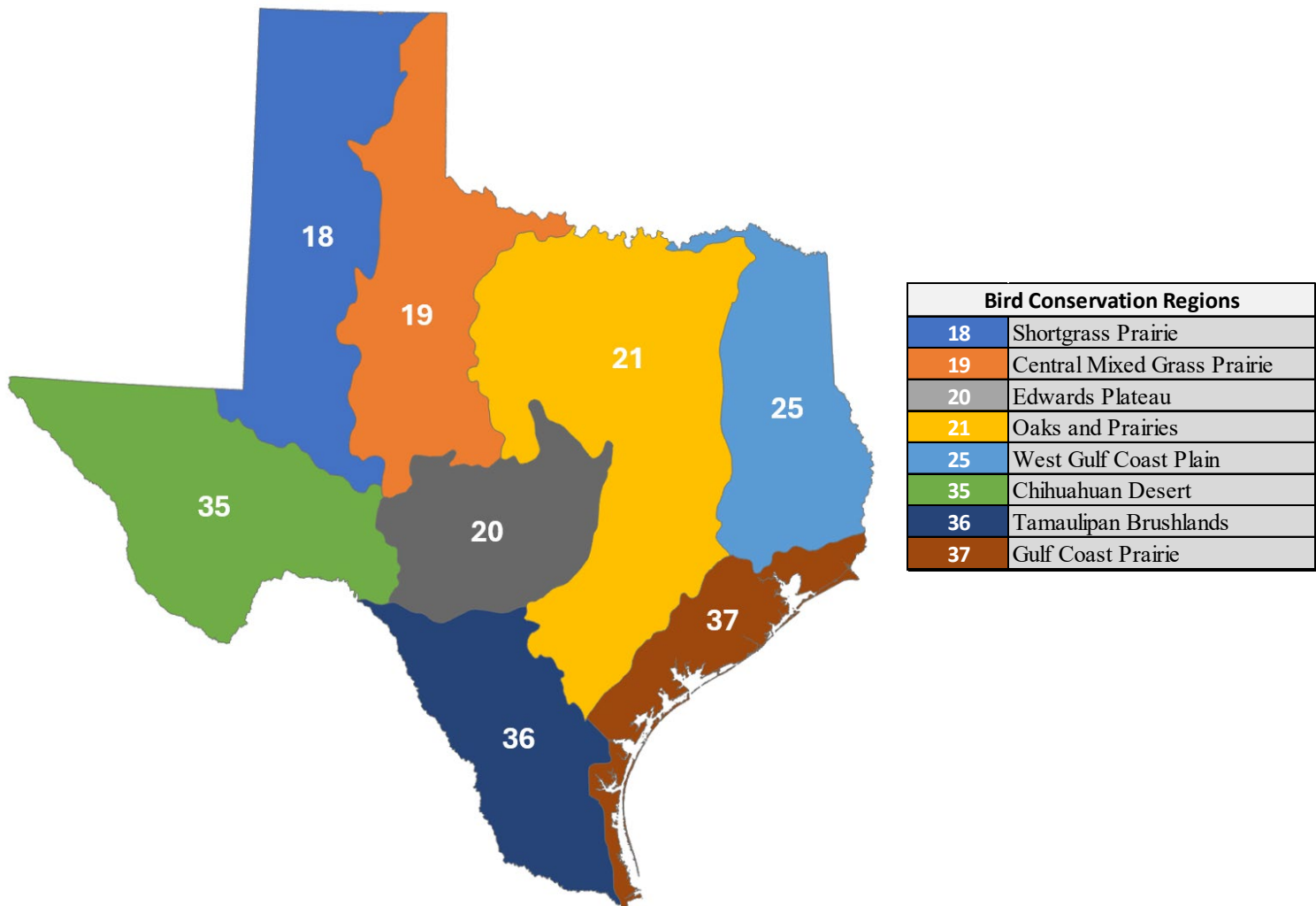


Figure 1. Bird Conservation Regions of Texas

STATUS – STATEWIDE

This section highlights trends in annual statewide abundance, percent composition of statewide abundance by BCR – both current year and long-term average (2008-23), and rural and urban abundance estimates by BCR for mourning and white-winged doves in Texas.

Mourning Dove

Mourning doves are the most popular and most numerous game bird in the US, with a range that extends throughout most of North America. Texas supports a large population of both resident and migratory mourning doves.

From 2008-24, abundance ranged from a low of 19.8 million in 2022 to a high of 37.5 million in 2016. The 2024 statewide abundance estimate of 34.3 million is the 3rd highest on record and is a 21% increase from 2023 and 24% above the long-term average (Figure 2). An estimated 89% occurred in rural areas compared to urban areas (11%) in 2024 (Figure 3), and, on average, densities in urban areas were 2.6 times greater than in rural areas.

On average, nearly 80% of the state’s mourning doves occur in just 4 BCRs - the Shortgrass Prairie (31%), Oaks and Prairies (26%), Tamaulipan Brushlands (11%), and Central Mixed Grass Prairie (10%) BCRs (Figure 4). In 2024, abundance increased in 3 of these 4 important BCRs, with extremely large increases occurring in the Shortgrass Prairie (76%) and Tamaulipan Brushlands (62%), while the Central Mixed Grass Prairie decreased 18% from a record high last year, though it remains 30% above the long-term average. Abundance estimates in all BCRs were well above long-term averages this year (24-73%), except for the Edwards Plateau (4%) and the West Gulf Coast Plain BCRs (-16%) (see Status-Regional section below).

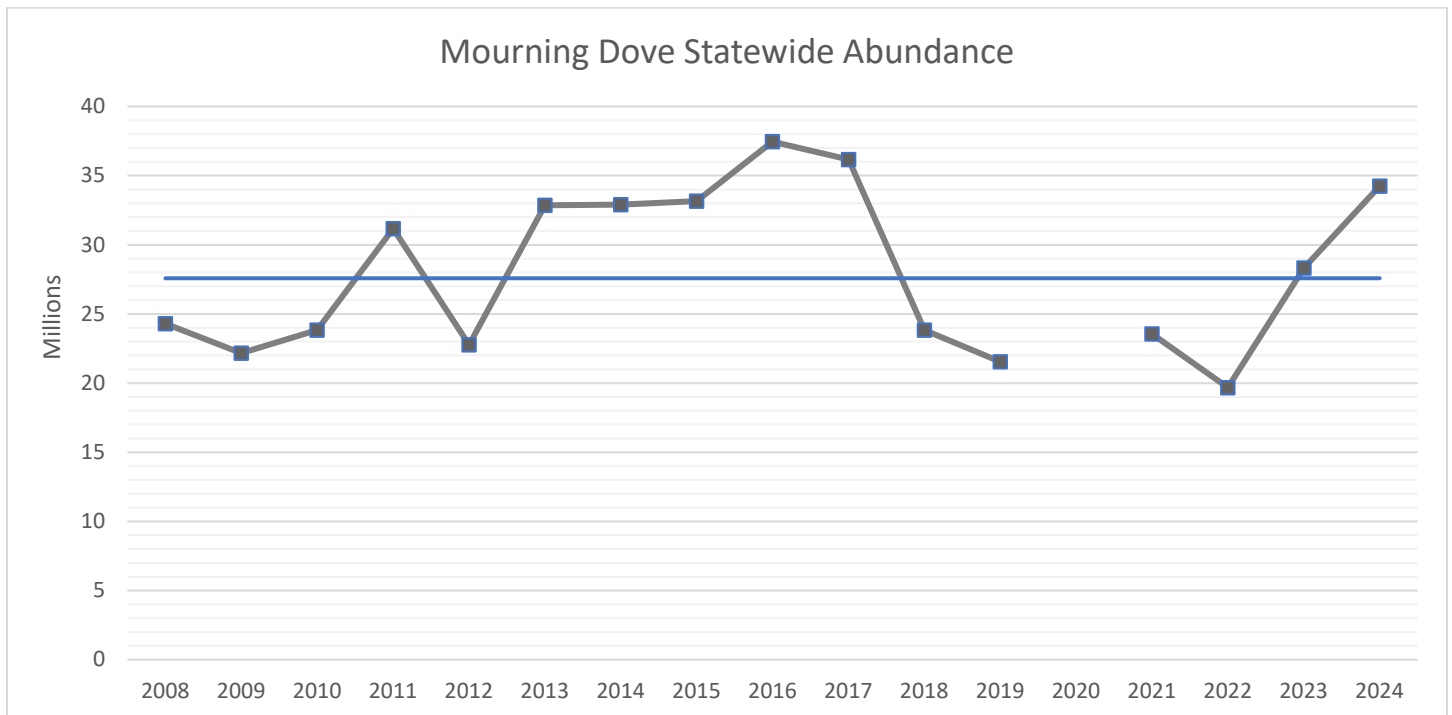


Figure 2. Combined rural and urban breeding abundance of mourning doves. The long-term average (2008-23), represented by the blue line, is 27.6 million.

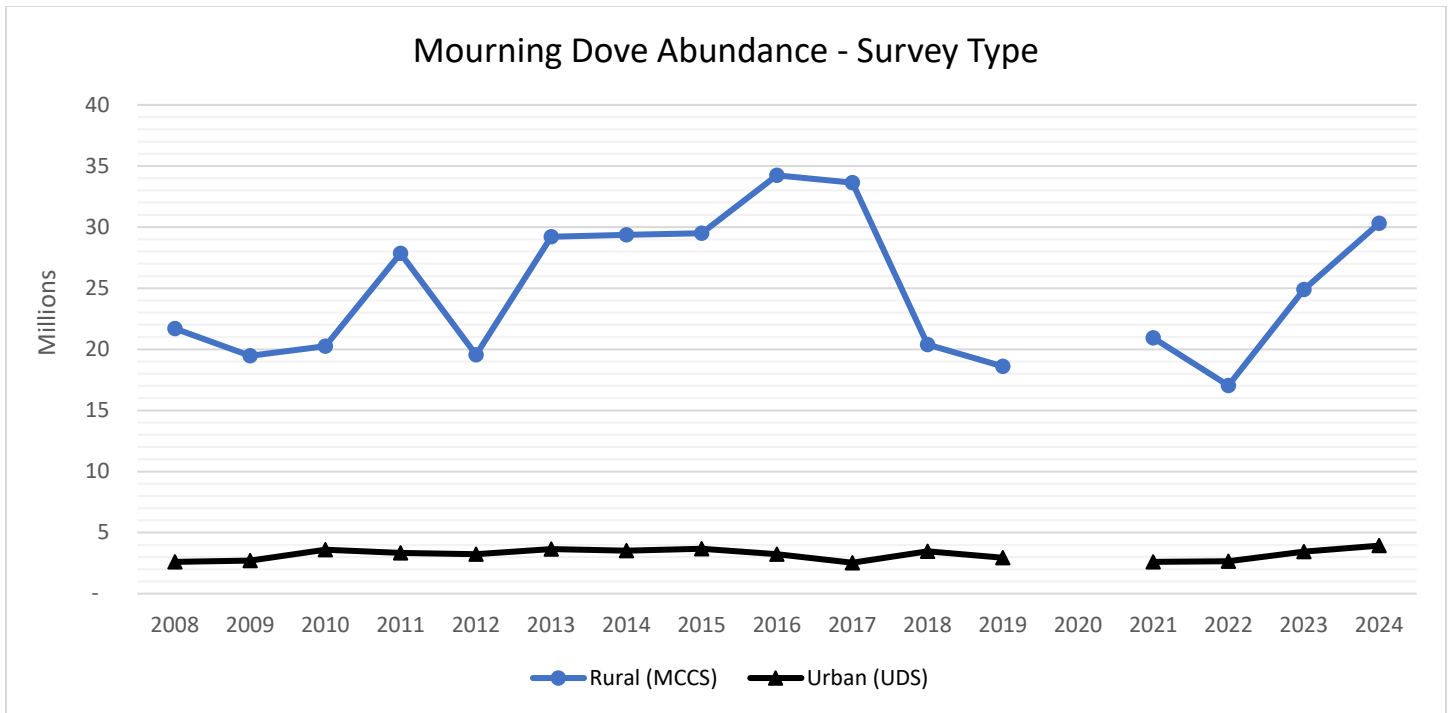


Figure 3. Statewide mourning dove abundance by survey type – Rural, based on Modified Call-Count Surveys (MCCS) and Urban, based on Urban Dove Surveys (UDS).

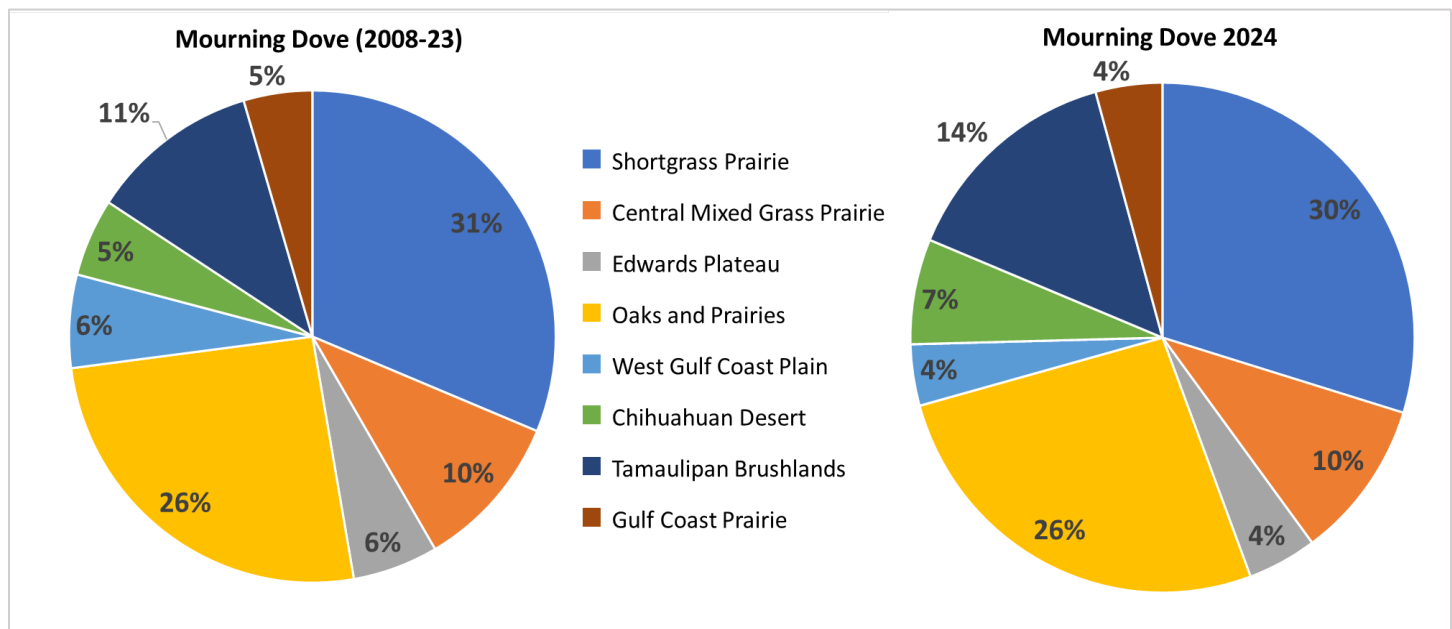


Figure 4. Percent composition of statewide mourning dove abundance in Texas BCRs, long-term average (2008-23) and 2024.

White-winged Dove

Historically restricted to the lower Rio Grande Valley, white-winged doves have expanded across most of the state since the 1990s and continue to expand range-wide throughout much of the southwest US. Outside of the Rio Grande Valley, white-winged doves are strongly associated with urban habitat in Texas.

From 2008-24, estimated abundance ranged from a low of 6.7 million in 2008 to a high of 12.8 million in 2024. The 2024 statewide abundance estimate of 12.8 million is the highest on record and is a 4% increase from 2023 and 27% above the long-term average (Figure 5). An estimated 78% occurred in urban areas compared to rural areas (22%) (Figure 6), and, on average, densities in urban areas were 65 times greater than in rural areas in 2024.

On average, nearly 80% of the state's white-winged doves are found in the Oaks and Prairies (34%), Tamaulipan Brushlands (22%), Gulf Coast Prairie (12%), and Edwards Plateau (11%) BCRs (Figure 7). In 2024, increases occurred in the Oaks and Prairies (22%) and Edwards Plateau (6%) BCRs, while the Tamaulipan Brushlands and Gulf Coast Prairie BCRs experienced slight declines from 2023 (see Status-Regional section below).

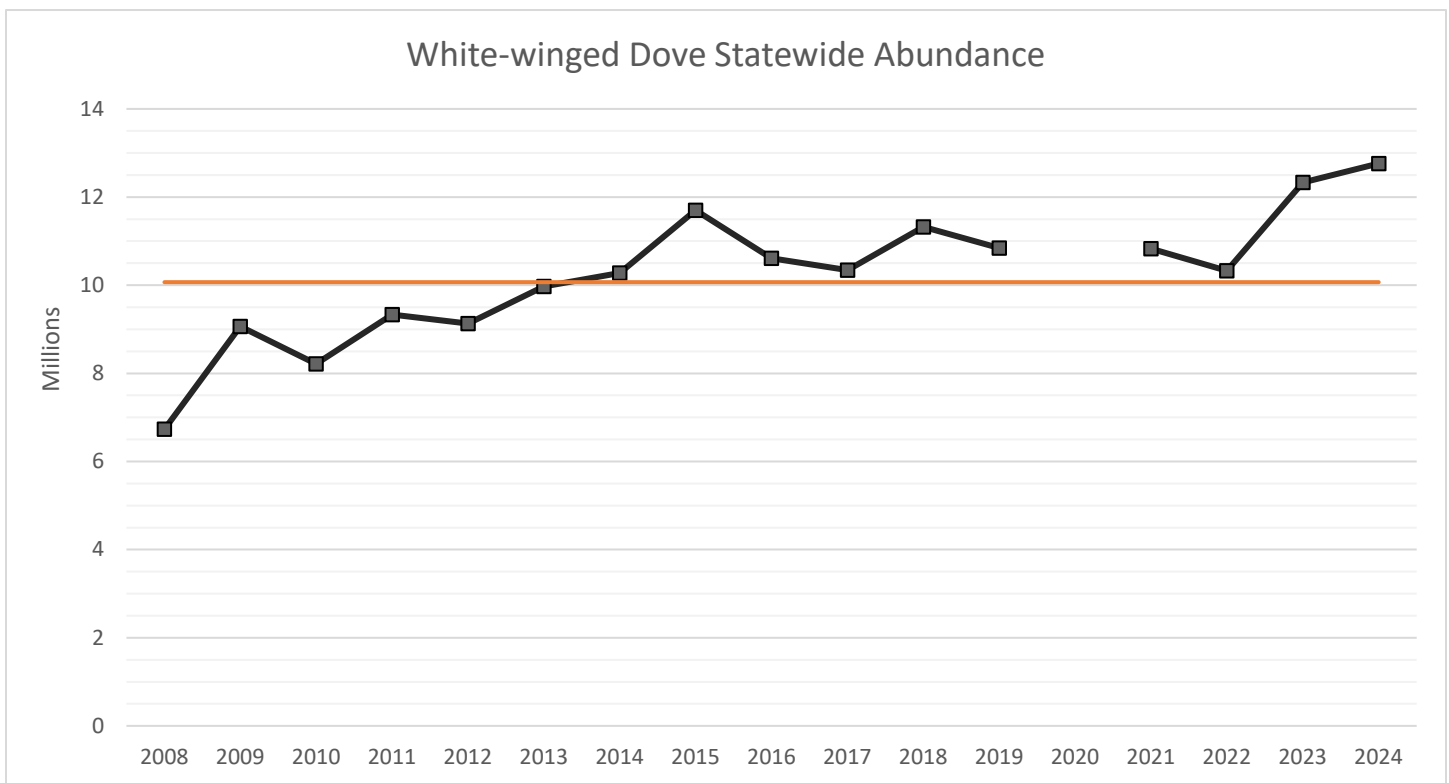


Figure 5. Combined rural and urban breeding abundance of white-winged doves. The long-term average (2008-23), represented by the orange line, is 10.1 million.

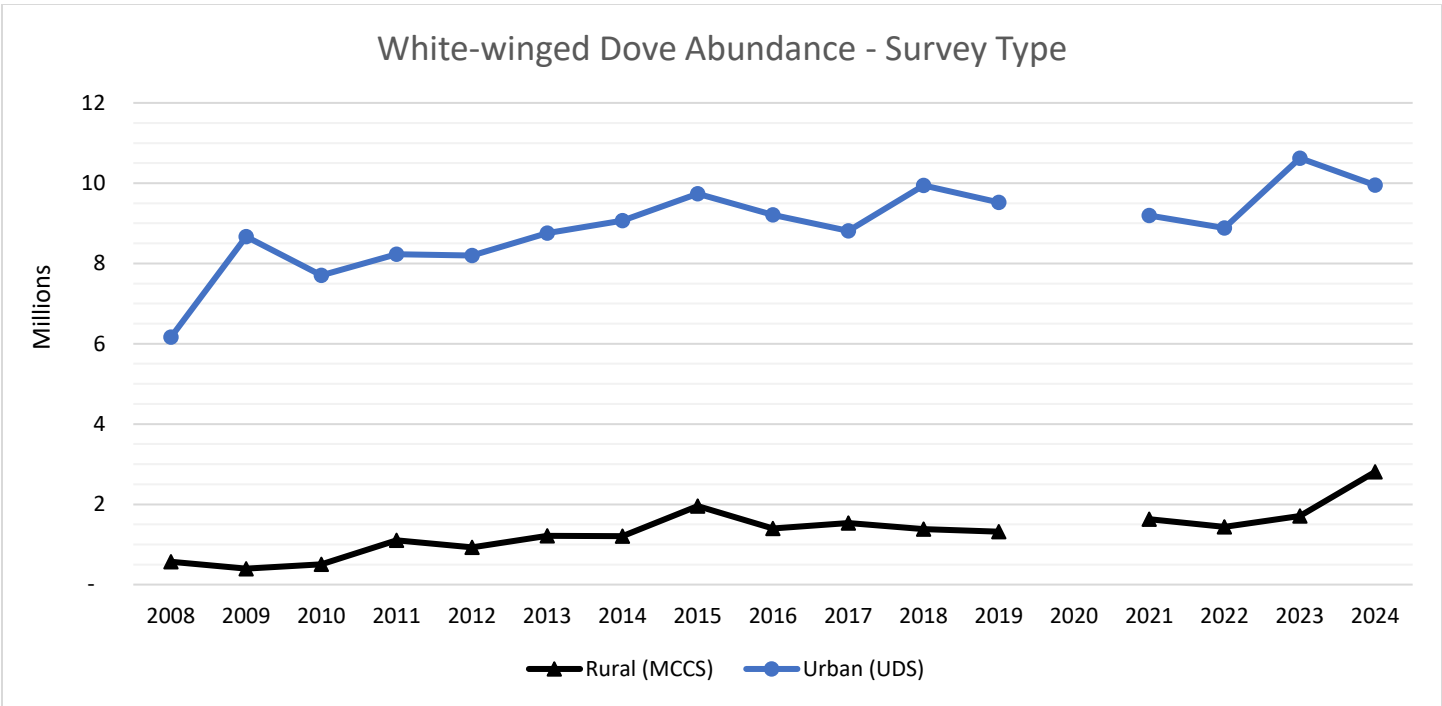


Figure 6. Statewide white-winged dove abundance by survey type – Rural, based on Modified Call-Count Surveys (MCCS) and Urban, based on Urban Dove Surveys (UDS).

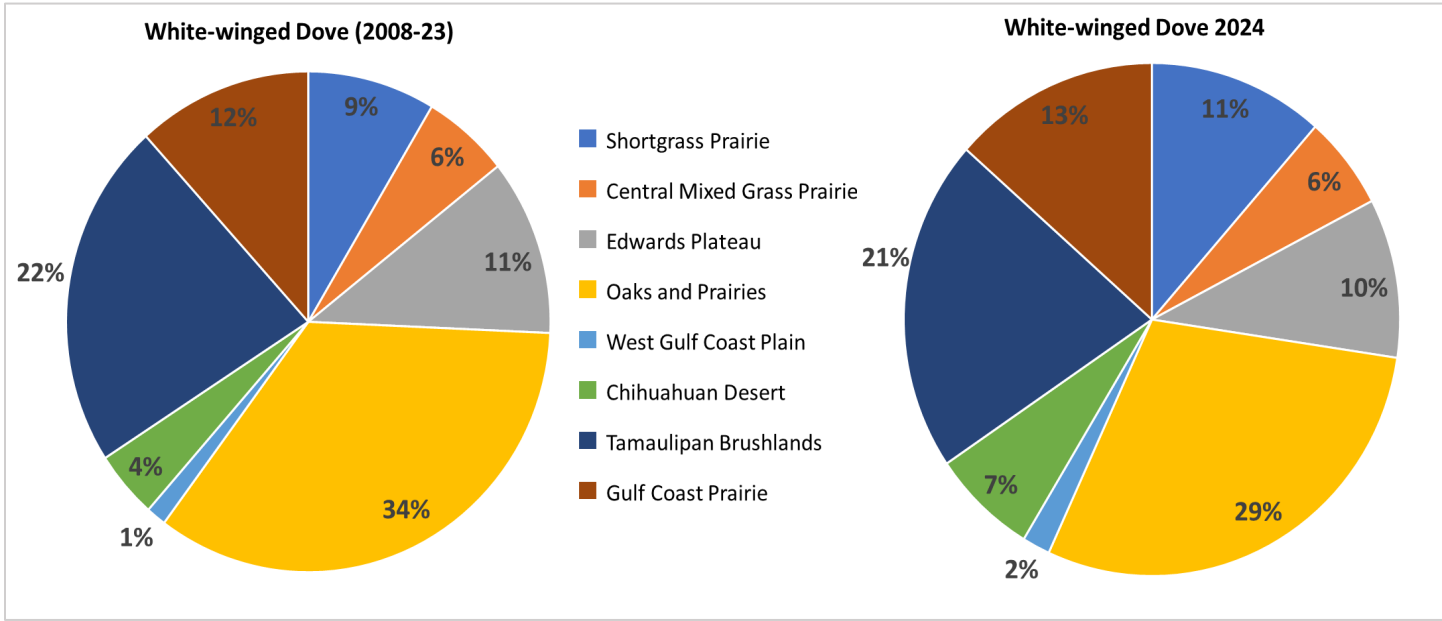
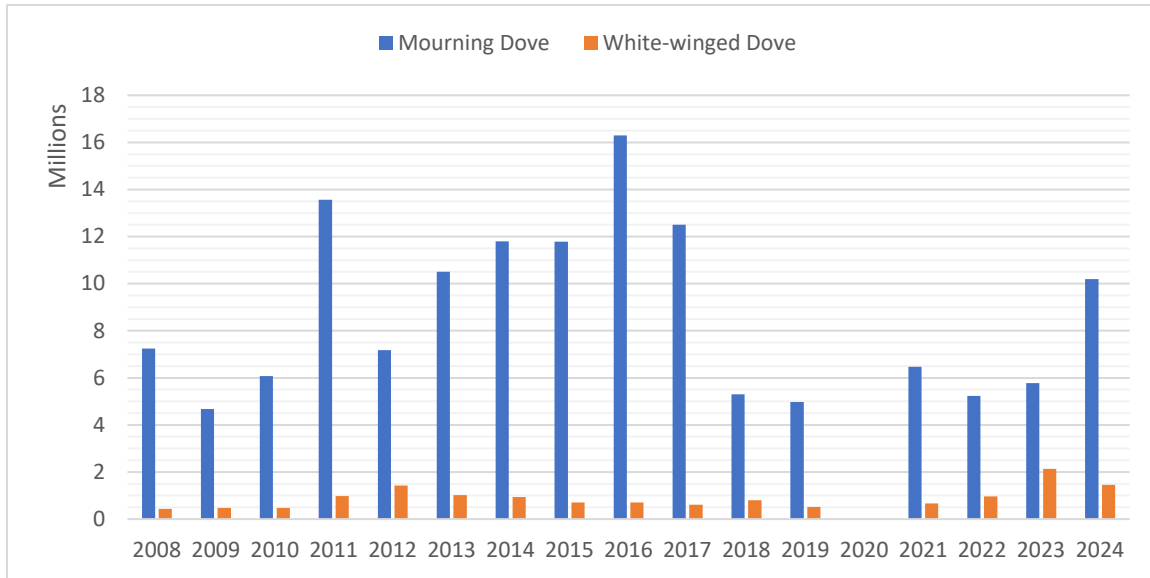


Figure 7. Percent composition of statewide white-winged dove abundance in Texas BCRs, long-term average (2008-23) and 2024.

STATUS – REGIONAL

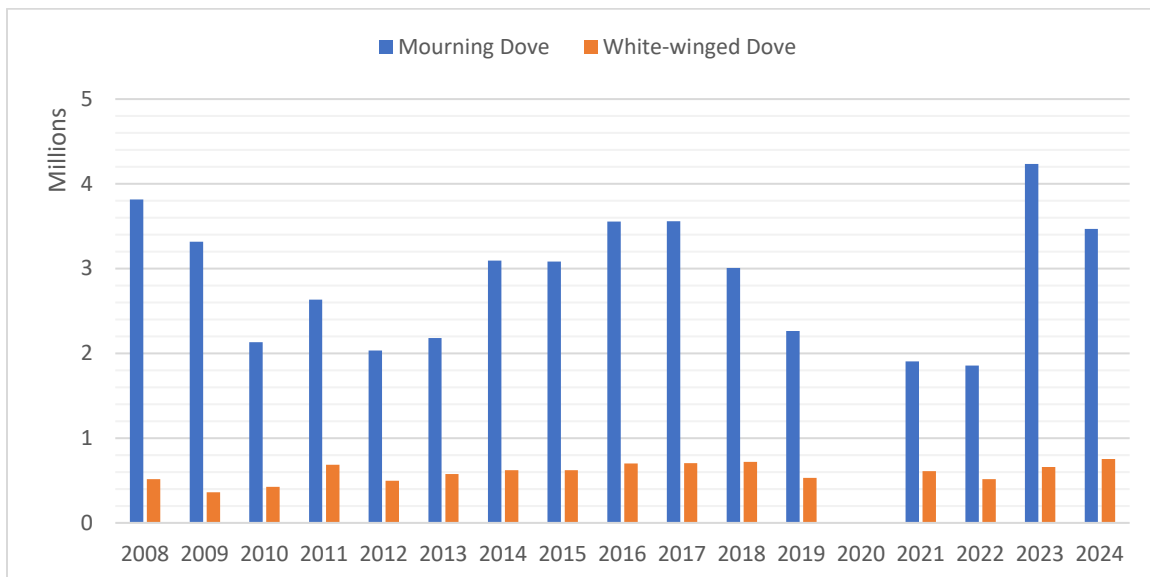
The following section highlights BCR trends in annual abundance (2024 N), percent changes from the 2008-23 long-term average to the current year (*% change LTA*), and year-over-year percent changes from 2023 to 2024 (*% change YOY*).

BCR 18 - Shortgrass Prairie



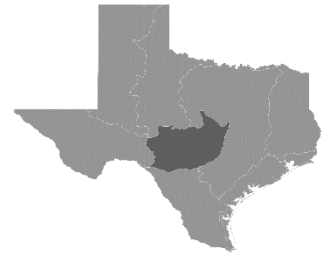
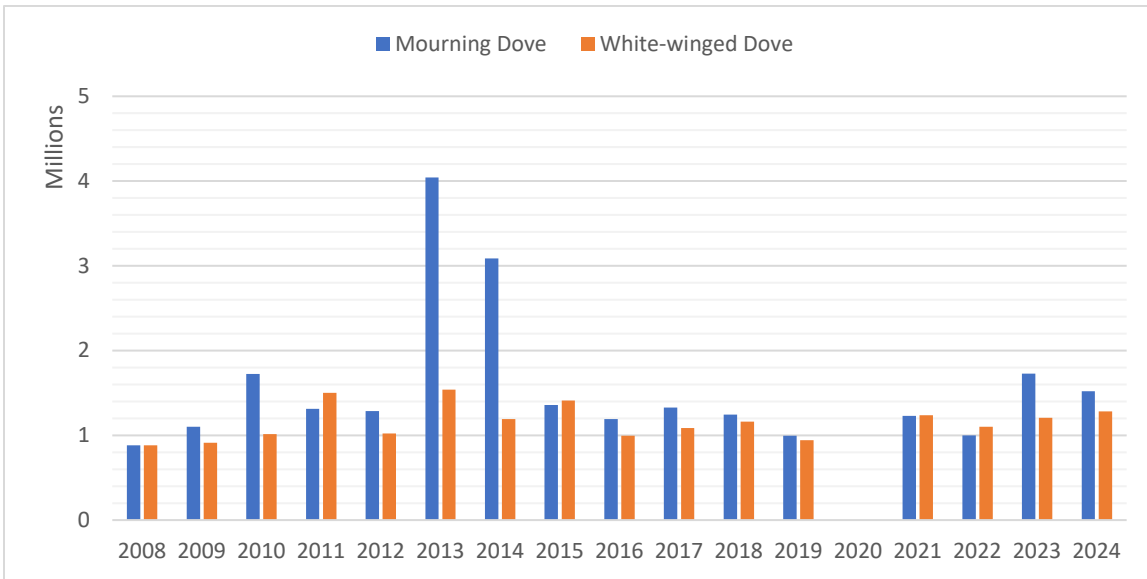
| | 2024 N | % change LTA | % change YOY |
|--------------------------|------------|--------------|--------------|
| Mourning Dove | 10,192,559 | 26.0% | 76.3% |
| White-winged Dove | 1,461,010 | 81.6% | -31.7% |

BCR 19 - Central Mixed Grass Prairie



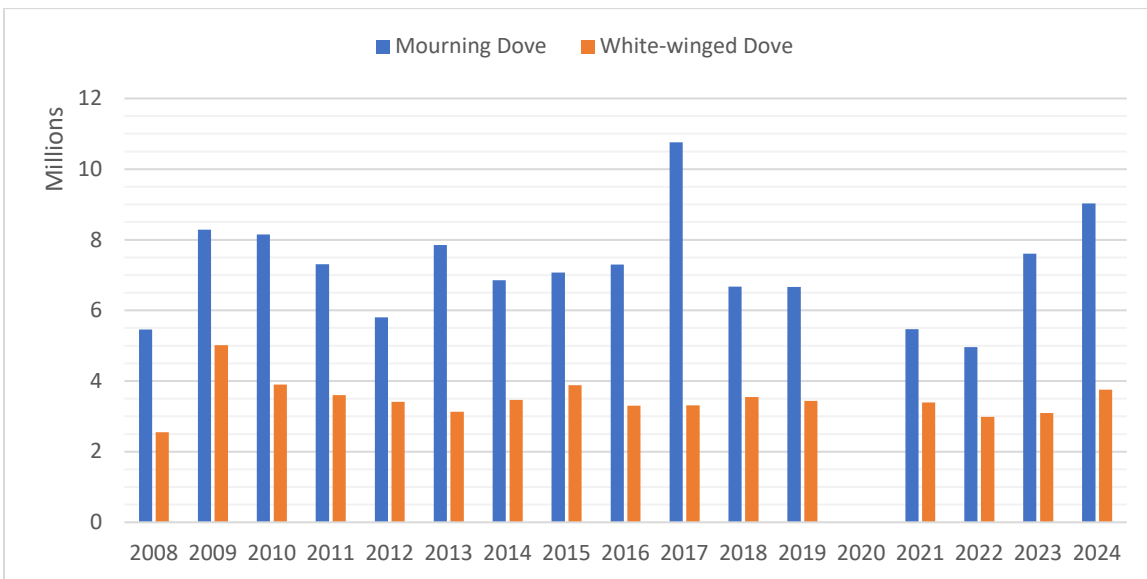
| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 3,467,128 | 30.0% | -18.1% |
| White-winged Dove | 753,439 | 37.7% | 14.3% |

BCR 20 - Edwards Plateau



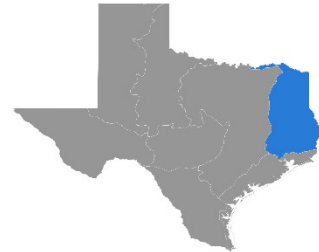
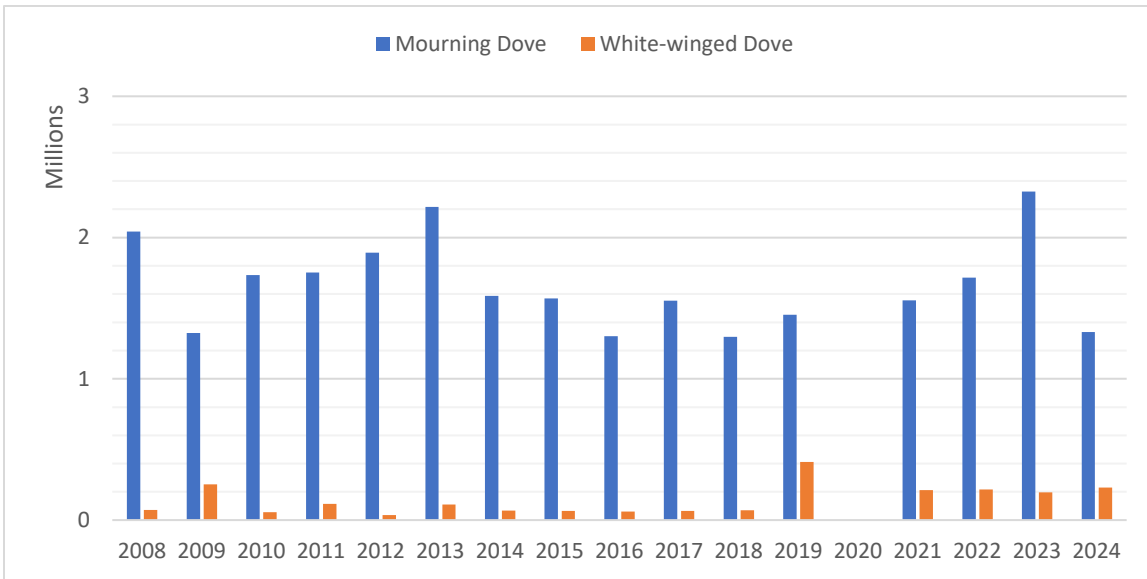
| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 1,520,359 | 3.5% | -11.9% |
| White-winged Dove | 1,281,077 | 19.1% | 6.1% |

BCR 21 - Oaks and Prairies



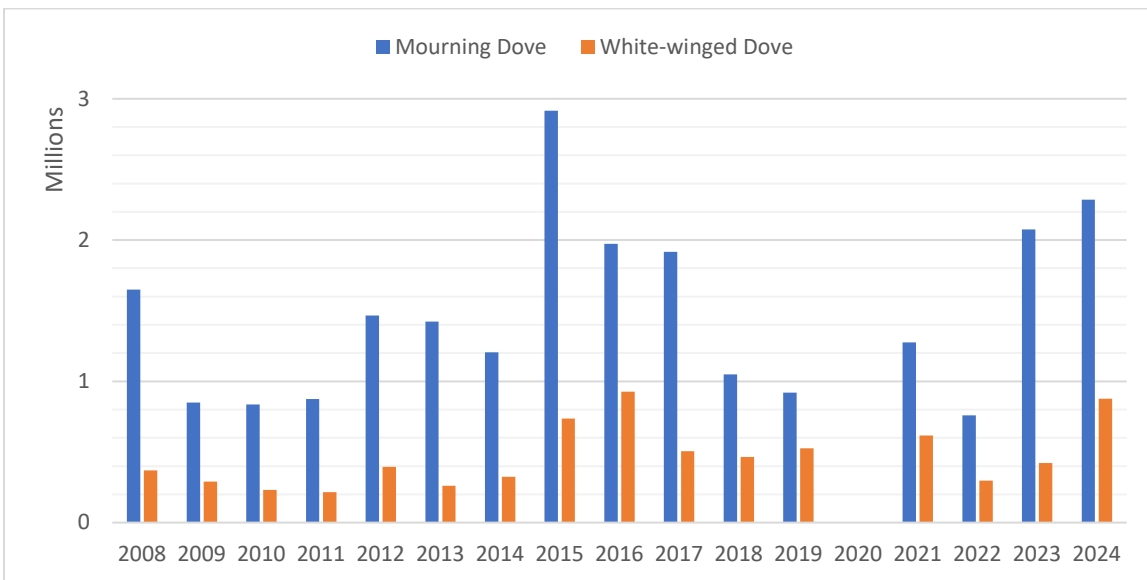
| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 9,032,357 | 36.1% | 18.7% |
| White-winged Dove | 3,756,859 | 15.6% | 21.6% |

BCR 25 - West Gulf Coast Plain



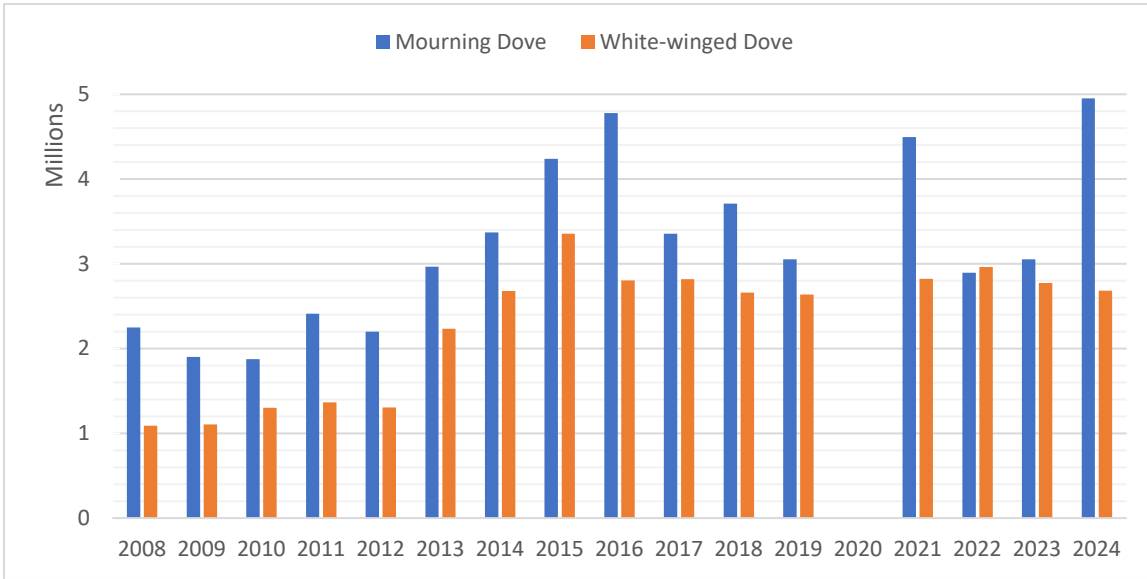
| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 1,331,335 | -15.9% | -42.7% |
| White-winged Dove | 231,289 | 84.4% | 17.5% |

BCR 35 - Chihuahuan Desert



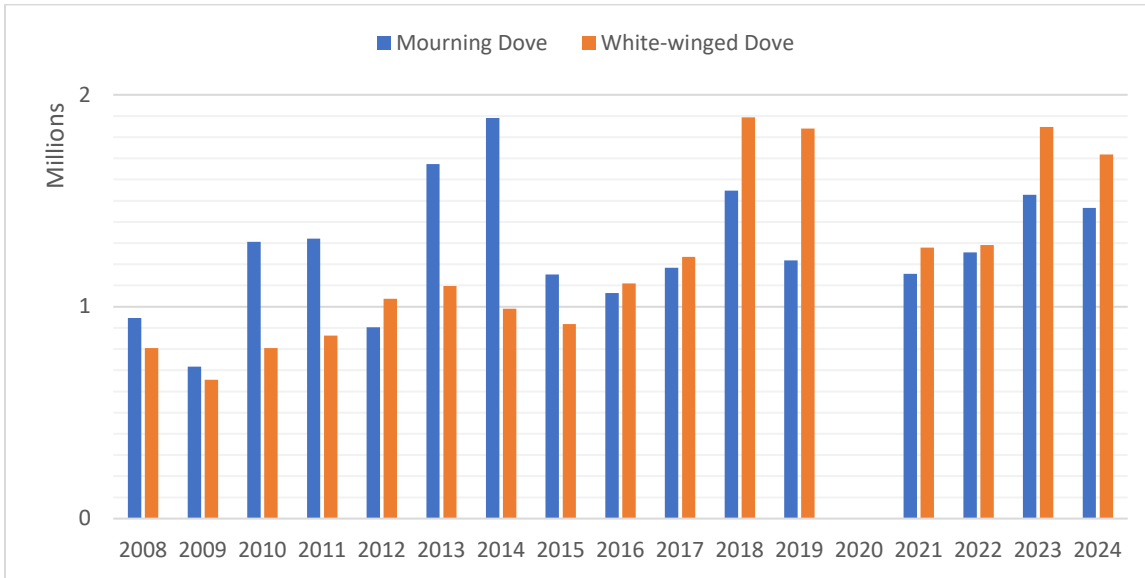
| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 2,286,536 | 72.7% | 10.2% |
| White-winged Dove | 876,239 | 113.0% | 107.5% |

BCR 36 - Tamaulipan Brushlands



| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 4,951,535 | 70.2% | 62.2% |
| White-winged Dove | 2,683,583 | 26.6% | -3.2% |

BCR 37 - Gulf Coast Prairie



| | 2024 N | % change LTA | % change YOY |
|--------------------------|-----------|--------------|--------------|
| Mourning Dove | 1,466,652 | 24.4% | -4.0% |
| White-winged Dove | 1,717,973 | 55.6% | -7.0% |

LITERATURE CITED

Bird Studies Canada and North American Bird Conservation Initiative Committee. 2014. Bird Conservation Regions. Published by Bird Studies Canada on behalf of the North American Bird Conservation Initiative.

<http://www.birdscanada.org/research/gislab/index.jsp?targetpg=bcr>

Buckland, S. T., D. R. Anderson, K. P. Burnham, and J. L. Laake. 1993. Distance sampling: estimating abundance of biological populations. Chapman and Hall, London, UK.

Fitzsimmons, O. N., R. R. Fern, S. L. Oldenburger. 2021. Dove population status and harvest, 2021. Texas Parks and Wildlife Department, Austin, TX.

Southwick, R. and T. Allen. 2007. The 2006 economic benefits of hunting, fishing, and wildlife watching in Texas. Southwick Associates, Inc., Florida, USA.

United States North American Bird Conservation Initiative Committee (US NABCI Committee). 2000. North American Bird Conservation Initiative: Bird Conservation Regions map. Arlington, Virginia, USA: U. S. Fish and Wildlife Service.