



Black-capped Vireo

Post-delisting Monitoring News, Vol. 2

2020 News

Post-delisting monitoring (PDM) for the black-capped vireo entered its second year in 2020, which produced some great findings despite a major setback. The COVID-19 pandemic resulted in the need to postpone several surveys for safety and to reduce the viral spread, but we did collect good information and continue to plan future monitoring. This year's newsletter tells the story of the efforts and conservation stewardship of our great partners.

Student Internship

The Service's Arlington Field Office applied for a student internship through the Directorate Fellowship Program to support the vireo post-delisting monitoring in the 2020 field season – and we were approved! We were fortunate to welcome an enthusiastic and highly qualified, future ornithologist from Northern Arizona University. The original plan was for the intern to be in the Arlington Field Office compiling survey data and conducting vireo surveys at 2 to 3 state parks. When the pandemic hit, all internships in the program were put on hold and contingency plans developed. Our intern suggested using automated recording units (ARUs) at the state parks she intended to visit and sending data to her to analyze – and just like that, the project was back on track.



Two types of ARU used: the original self-contained unit (right side) and a "mini" that is programmed via phone app.

The ARUs are battery-powered outdoor audio recorders, designed to record bird songs. We purchased two ARUs, additional gear, obtained permits to place them at Possum Kingdom and Dinosaur Valley State Parks, and scheduled the field days. The two state parks selected for monitoring lacked recent surveys; the last positive surveys at Dinosaur Valley were 2 males from 2009 and from Possum Kingdom 5 males in 2014. Because vireo numbers are likely low at the parks, there was a good chance that the ARUs would not record vireos singing, therefore, we used Fort Hood as a control site, where vireos are known to nest.



Attaching the mini ARU to a dead tree within vireo habitat at Possum Kingdom. A vireo happened to be singing nearby.

During the deployment of the ARUs, multiple vireos were heard singing, and one visual/photo confirmation was made at Dinosaur Valley. The ARUs were placed at three different locations within each park, and one location at Fort Hood. A total of 339 recordings were made, and a surprising 179 of those contained vireo songs. We believe the ARUs detected 3 individuals from the locations recording at each State Park. The project provided valuable insight into the use of ARUs to detect presence of vireos and potential use for estimating local populations. Special thanks to Texas Parks and Wildlife Department

(TPWD) and Fort Hood for helping to make this project a success.

Cooperative Agreement Extended

In 2018, the Service provided a financial award to the Nature Conservancy to conduct surveys over 2 years to support the PDM plan on preserves in Texas. In late 2019, the award was amended to provide funding for an additional two years of survey efforts. This will provide survey information at four preserves through the 2022 breeding season. For 2020, the COVID-19 pandemic substantially limited efforts. Only Barton Creek Habitat Preserve was surveyed, and only for a brief period. This approximately 4,000 acre preserve has about 150-acres of habitat with only 1 detected in 2018. In 2020, 38 points were surveyed and no vireos detected. Planning and coordination for 2021 surveys are underway.

Section 6 Award for PDM

The American Bird Conservancy was awarded a grant for PDM surveys under section 6 of the Endangered Species Act. This is another multi-year effort that will provide abundance and nest data from state lands in Texas with known vireo populations. Due to the pandemic, the 2020 surveys were postponed and will begin in 2021 breeding season.

Escondido Draw Recreational Area

Planned Breeding Bird Survey routes conducted in 2019 did not occur in 2020 due to the pandemic; however, the continued efforts at Escondido Draw Recreational Area did produce abundance information. The Recreational Area, in Crockett County, has been surveyed for vireos every other year since 2009. In 2020, a record high of 20 breeding males were observed, three of which were found in previously unoccupied areas.

National Wildlife Refuges

The Service continued its monitoring and management efforts at Wichita Mountains Wildlife Refuge. The

pandemic also curtailed some efforts, but cowbird management and mechanical treatment of eastern red cedar did occur in 2020. The 2020 spring surveys detected 141 vireos at 211 points, with an estimate of 6,888 breeding males across the refuge. Balcones Canyonlands National Wildlife Refuge is planning to use survey data collected in 2019 to develop a habitat model and population estimate in 2021. Approximately 175 vireos were detected in 2019, which supports the increasing population trend resulting from management actions at the refuge.

State Land Surveys

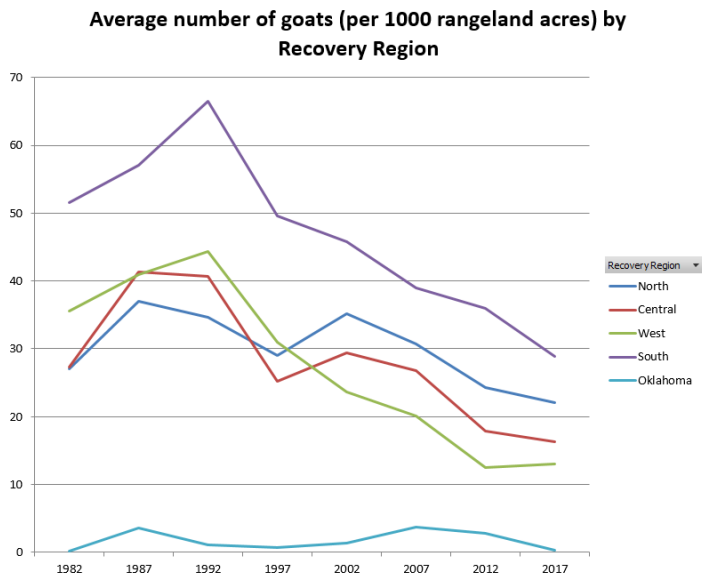
The TPWD manage several state lands that contributed to PDM efforts. Successful habitat management by prescribed fire and mechanical methods were implemented on lands with two major populations: Mason Mountain Wildlife Management Area (WMA) and Kerr WMA. Spring 2020 surveys at Mason Mountain estimated 284 breeding males, an increase from last season. Muse WMA, which counted 25 males in 2019, detected 65 males in 2020! Part of the increase is attributed to expanded access resulting from brush management at the WMA. A new population of vireos was discovered at Government Canyon State Natural Area in 2020. Previous records of vireos at the park are scant, with one detection recorded by TPWD in 2000. Surveys completed in 2020 detected 23 singing males.



Black-capped vireo at Government Canyon State Natural Area. Photo credit: Theresa Edwards.

Agricultural Census

The 2017 U.S. Department of Agriculture *Census of Agriculture* was released in 2019 and provides a summary of agricultural statistics useful for evaluating trends in metrics that affect breeding vireos in the U.S. The primary statistic the Service tracks is the number of goats occurring within the U.S. breeding range. An increase in goats may result in decreases of available habitat. The 2017 data show an encouraging decreasing trend of goat numbers across most of the vireo range providing for improving habitat conditions.



Trends in goat numbers across the four Texas recovery regions and Oklahoma.

Next Season

In the 2021 field season, we hope to catch up on some activities that we were unable to complete in 2020. Many thanks to all our partners who are dedicated to conservation and supporting PDM for the black-capped vireo. Some activities being planned for next season:

- Kerr WMA abundance surveys
- Season two/three for surveys at the Nature Conservancy Preserves
- Survey of Possum Kingdom State Park

- First Season of American Bird Conservancy State Park project
- Survey of Big Bend National Park
- Deploying ARUs to records at additional parks

For more information, or to contribute data, contact:

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Trail marker at Dinosaur Valley State Park.