

WINTER PRAIRIE BIRD SURVEY



2017-2018

CIBOLO PRESERVE, BOERNE TEXAS

Winter Prairie Bird Survey

CIBOLO PRESERVE

HISTORY

The Winter Prairie Bird Survey (WPBS) has been conducted on The Cibolo Preserve (aka Herff Falls Ranch) since the winter of 2003. The survey utilizes a volunteer workforce of Citizen Scientists who are familiar with grassland species of birds. Prior to each survey the volunteers are instructed in the protocol for data collection and are re-familiarized with the flight patterns of the expected species to facilitate identification.

Because grassland species are quite difficult to distinguish based on feather patterns and coloration, using flight patterns is an acceptable method to utilize in determining species. The WPBS has identified at least 10 different species using the grasslands on the Cibolo Preserve over the last 14 years. There are three bird species that are of particular interest to the Texas Parks & Wildlife Department. The Le Conte's sparrow, grasshopper sparrow and the meadowlark are all listed in the [Texas Parks & Wildlife Department Conservation Action Plan](#) (2012) as Species of Greatest Conservation Need (SGCN). These species are ones that have declined or have a very restricted range and should be considered a management priority for the area. All three of these species have been previously recorded during the WPBS at the Cibolo Preserve.

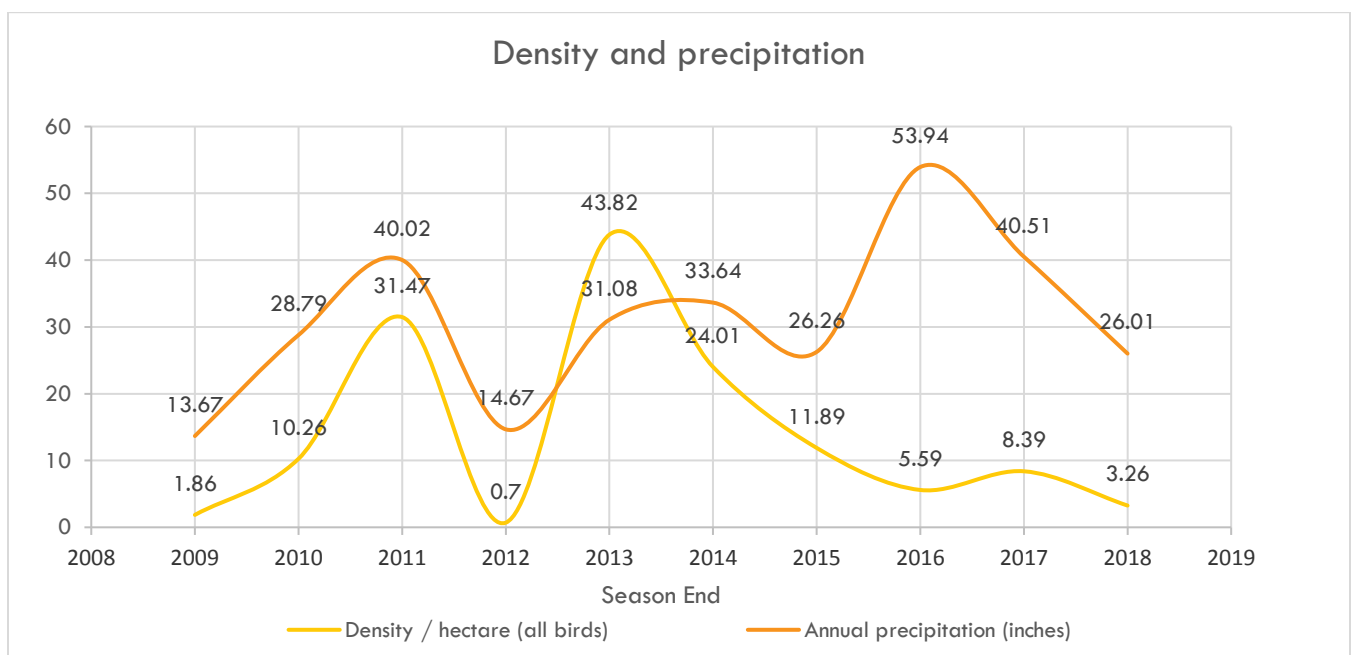
FINDINGS

Within the confines of the Winter Prairie Bird Survey protocol transects for the 2017-2018 season, there were 14 birds recorded during the December, January and February surveys. The observations included 2 vesper sparrows, 8 savannah sparrows, and 4 grasshopper sparrows. As mentioned above the grasshopper sparrow is a SGCN. Multiple species were observed outside the survey protocol including additional savannah sparrows, field sparrows, chipping sparrows, grasshopper sparrows, a white-crowned sparrow, lark sparrow, song sparrow and even a coyote and domestic cat as shown in the comments of the raw data sheets.

The total count on the transects of 14 and resultant average per acre of 3.26 is the lowest experienced since the drought of 2011/2012. With an annual total rainfall of only 26.01 inches in 2017, this is not entirely unexpected. Although counts and precipitation historically trended similarly from 2009 – 2012, the years after have shown variability that cannot be solely attributed to annual cumulative rainfall. Seasonal precipitation variability is a factor we will need to consider, as well as land management practices occurring in the transects.

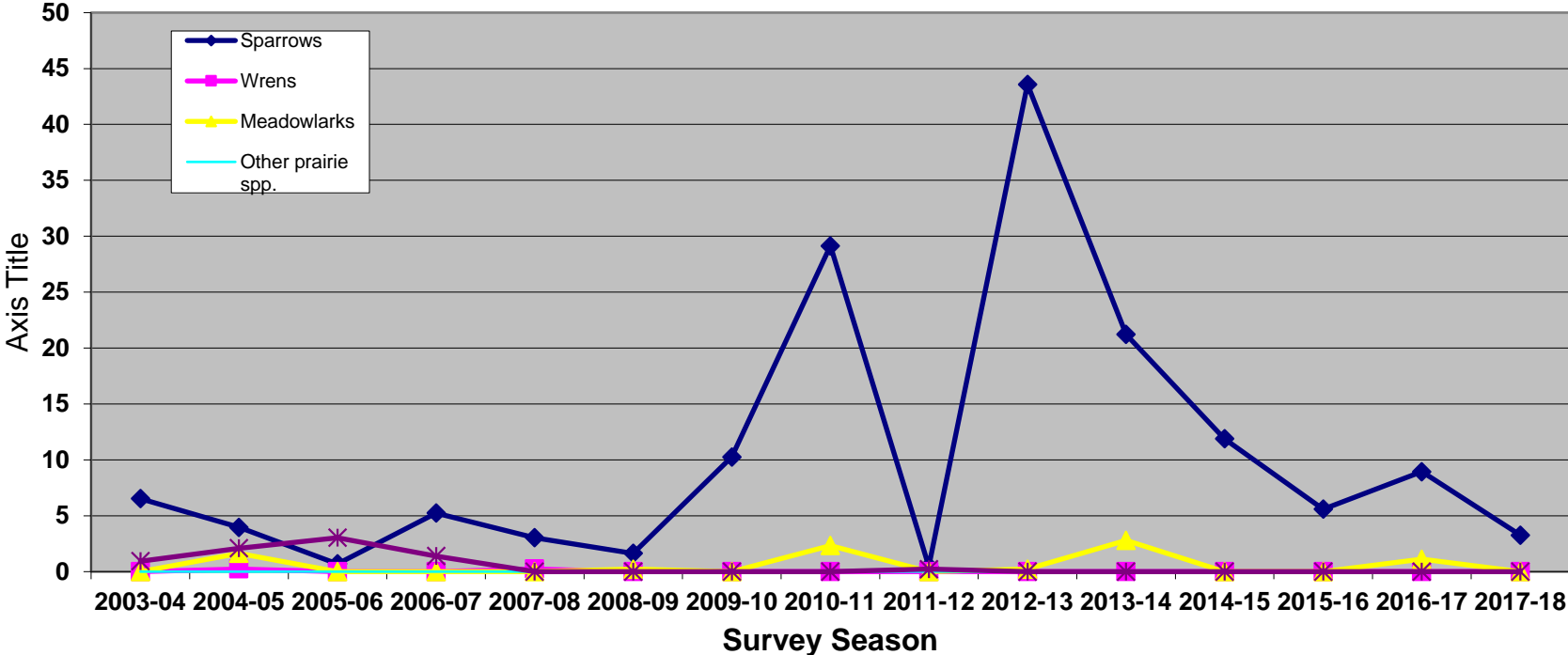
Findings for total bird densities and precipitation for the past nine seasons are presented below.

Year	Density / hectare (all birds)	Annual precipitation (end of start year)
2017-2018	3.26	26.01
2016-2017	8.39	40.51
2015-2016	5.59	53.94
2014-2015	11.89	26.26
2013-2014	24.01	33.64
2012-2013	43.82	31.08
2011-2012	0.70	14.67
2010-2011	31.47	40.02
2009-2010	10.26	28.79

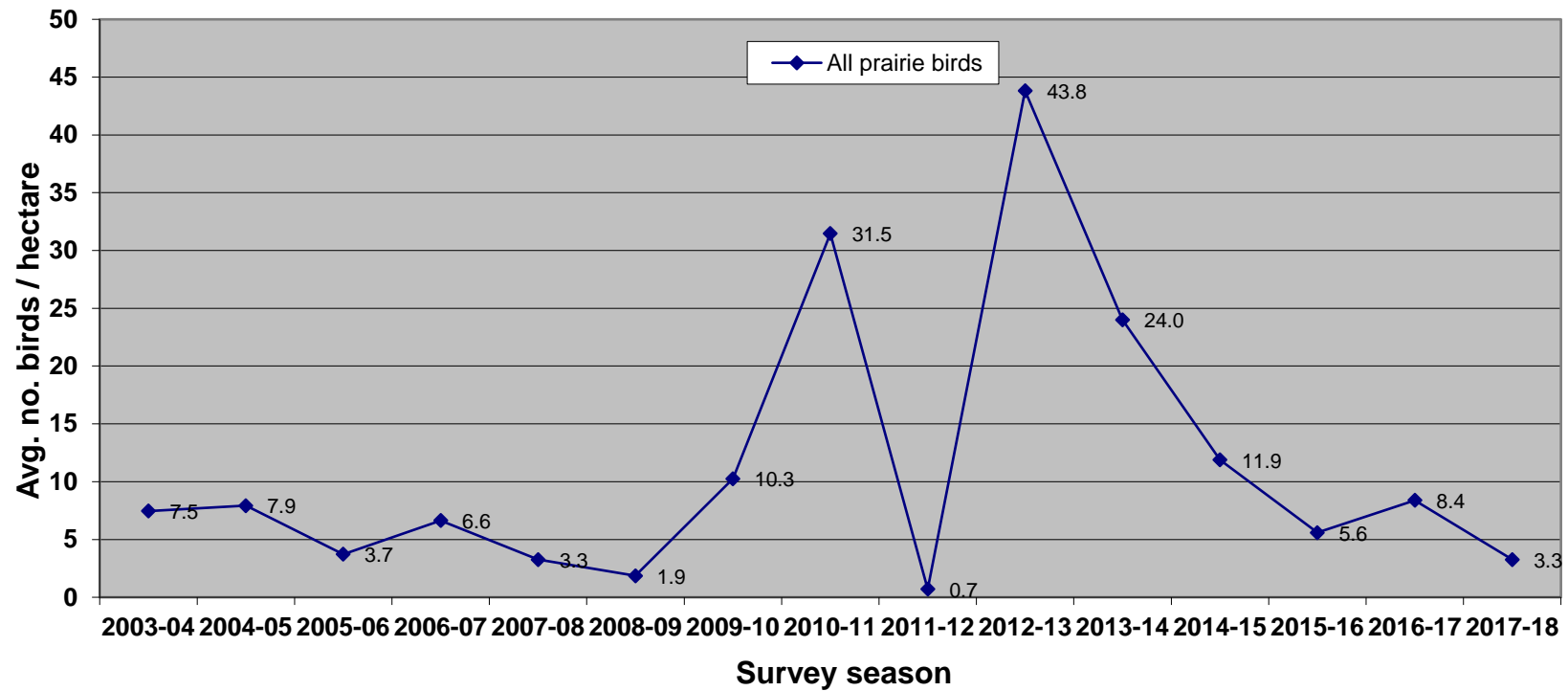


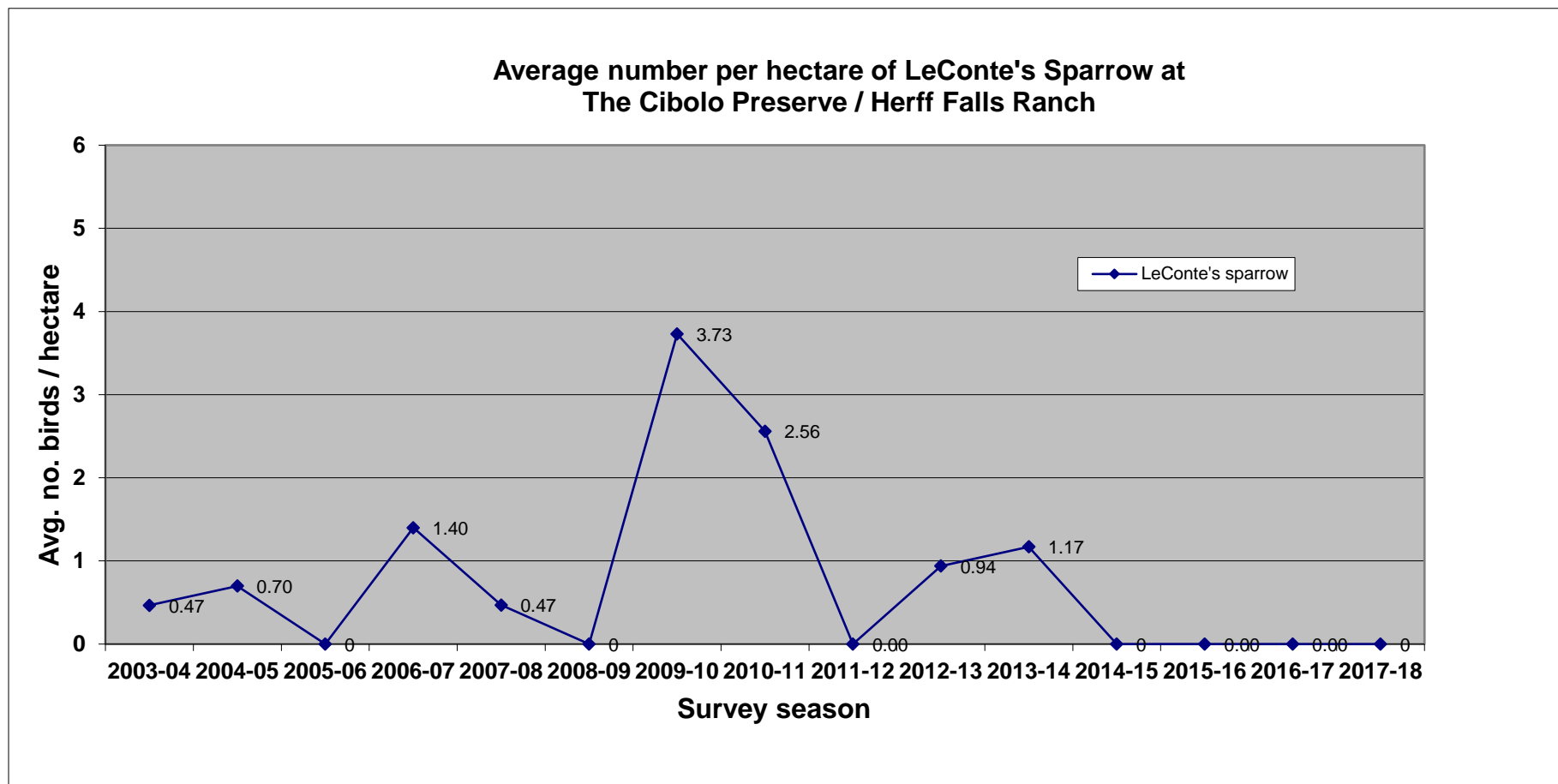
The 2017-2018 season resulted in an average annual density of 3.26/ hectare for all bird species. Annual rainfall year ending 2017 was 26.01 inches. Only the annual cumulative precipitation was considered for this report. Analysis of monthly precipitation data may be warranted in the future along with the RMPP data derived. The graphs that follow show densities of all prairie birds, prairie birds by group, and LeConte's sparrow specifically for the most recent monitoring as well as years past.

Average number per hectare of prairie birds, by group,
at The Cibolo Preserve / Herff Falls Ranch



Average number per hectare of all prairie birds at
The Cibolo Preserve / Herff Falls Ranch







Cibolo Preserve Winter Prairie Bird Survey Transects



D:\GIS\Cibolo_Preserve\WinterPrairieBirdTransects.mxd

Legend

- Prairie Bird Transects
- Cibolo Watershed Creeks
- ▭ Cibolo Preserve

Source: CNC GIS Lab 11.4.13

This page is reserved for the raw data sheets

File name: CP_WPB_2017_2018data

Attached digitally