

2019-20 Sandhill Crane Hunter Participation and Harvest Report

Alabama Department of Conservation and Natural Resources
Division of Wildlife and Freshwater Fisheries
Wildlife Section
Migratory Game Bird Program



Photo: Billy Pope, ADCNR



Introduction

The 2019-20 season marked the first experimental hunting season for sandhill cranes in Alabama. The Alabama Division of Wildlife and Freshwater Fisheries (WFF) requested 400 permits and 1,200 tags based on guidelines from the Management Plan for the Eastern Population of Sandhill Cranes (Van Horn et al. 2010). Due to the limited number of permits and tags, an online registration process and computer automated drawing was instituted to randomly select 400 hunters to receive one sandhill crane permit with three (3) tags per permit. The open application period for permits occurred September 4-25, 2019 and a total of 591 people applied. The computer automated draw was conducted on October 2, 2019 to randomly select the 400 hunters to receive permits. Those selected were required to pass an online regulations and identification test. A timeline of one week was provided to complete and pass the online test and confirm their permit acceptance, or they were disqualified from receiving a permit. If a disqualification occurred, an alternate was subsequently promoted to receive the permit and subjected to the same test and qualification process. All permitted hunters were mailed a physical permit, three tags (metal leg bands), and a hunter log.

The 2019-20 Alabama experimental sandhill crane season dates spanned from December 3, 2019 – January 5, 2020 and January 16 -31, 2020, a 50-day season with a 10-day closure during the “Festival of Cranes” at Wheeler National Wildlife Refuge. The daily bag limit, season bag limit and possession limit remained at three cranes per hunter for a total maximum allowed harvest of 1,200 cranes. Shooting hours were from sunrise to sunset. The sandhill crane hunting zone was defined as the area north of Interstate 20 from the Georgia state line to the interchange with Interstate 65, then east of Interstate 65 to the interchange with Interstate 22, then north of Interstate 22 to the Mississippi state line, excluding the remainder of the state (Figure 1).

Limited Quota Sandhill Crane Hunting Zones

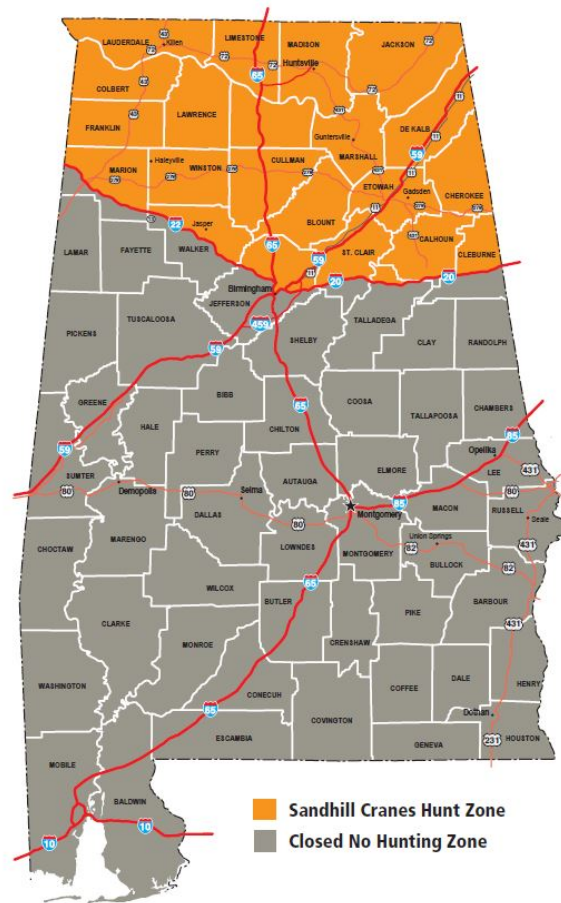


Figure 1. Alabama Division of Wildlife and Freshwater Sandhill Crane Hunt Zones.

Experimental Season Results

Of the 400 permitted hunters, 388 (97%) completed all or a portion of the mandatory post-season hunter survey. Two hundred ninety-seven (297) or 77% of hunters participated in at least one hunt, while 91 (23%) did not attempt to hunt (Table 1). A total of 291 (24%) birds were harvested, 237 (81%) adults and 54 (19%) juveniles. A total of 21 (7%) cranes were wounded and unable to be retrieved. One hundred thirty-eight (138) or 46% of hunters were successful in harvesting at least one crane. The average harvest was 2.2 birds per successful hunter.

Table 1. Number of birds harvested by harvest number and hunter effort for hunters that hunted at least one day.

Number of Birds Harvested	Number of Hunters	% of Total Hunters	% of Successful Hunters	Frequency of Number of Birds Harvested	Number of Days Hunted	% of Total Hunt Days	Average Number of Days Hunted
0 Birds	159	54%	0%	0	597	67%	3.8
1 Bird	45	15%	33%	45	84	9%	1.9
2 Birds	33	11%	24%	66	52	6%	1.6
3 Birds	60	20%	43%	180	158	18%	2.6
Total	297			291	891		3.0

A total of 288 (99%) cranes were harvested when hunters were primarily hunting for sandhill cranes. Three (1%) birds were harvested when hunters incidentally harvested a crane while hunting other game species. Of the 891 total hunts, 175 (20%) were successful (hunts in which hunters harvested at least one crane). A total of 3,420 hours was spent hunting sandhill cranes, with the average length of a sandhill crane hunt at 3.0 hours.

Cranes were harvested in 6 of the 22 counties within the crane hunting zone (Figure 2) and five of those counties also had the highest number of hours spent hunting for sandhill cranes (Figure 3). Hunter effort (i.e. hours hunted) and harvest of sandhill cranes was highly correlated in counties that encompass the three main sandhill crane wintering areas in North Alabama; Wheeler National Wildlife Refuge in Morgan County (n=140; n=984), the Jackson County Waterfowl Management Areas and Refuges in Jackson County (n=38; n=881), and Weiss Lake in Cherokee County (n=90; n=546).

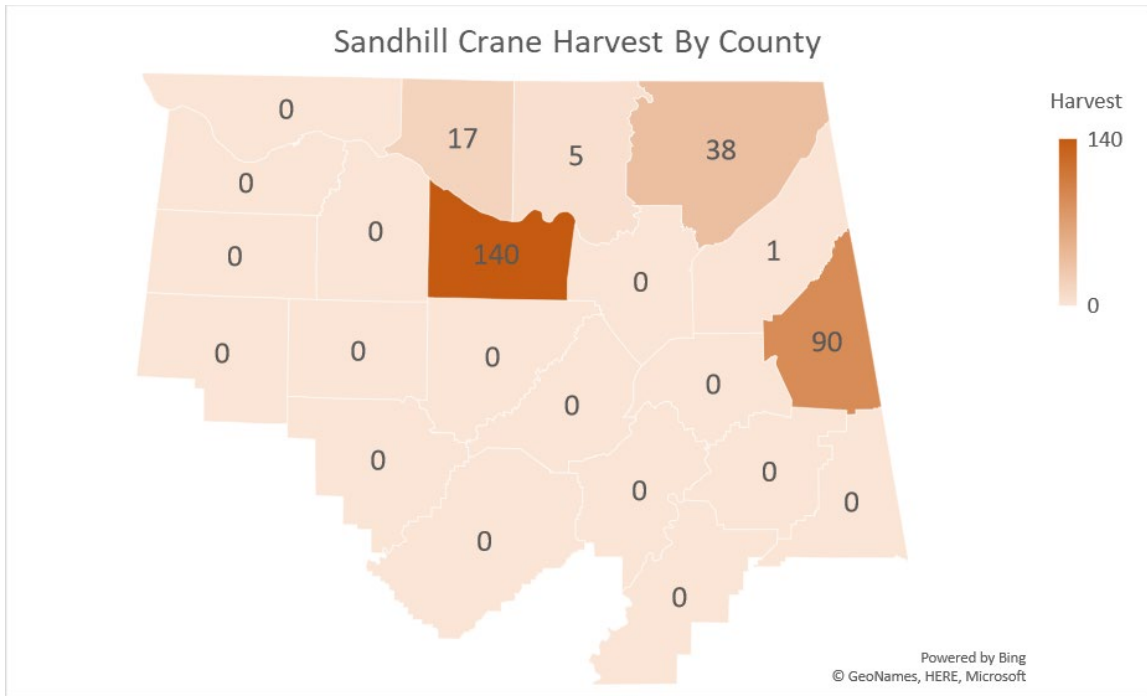


Figure 2. Number of sandhill cranes harvested by county.

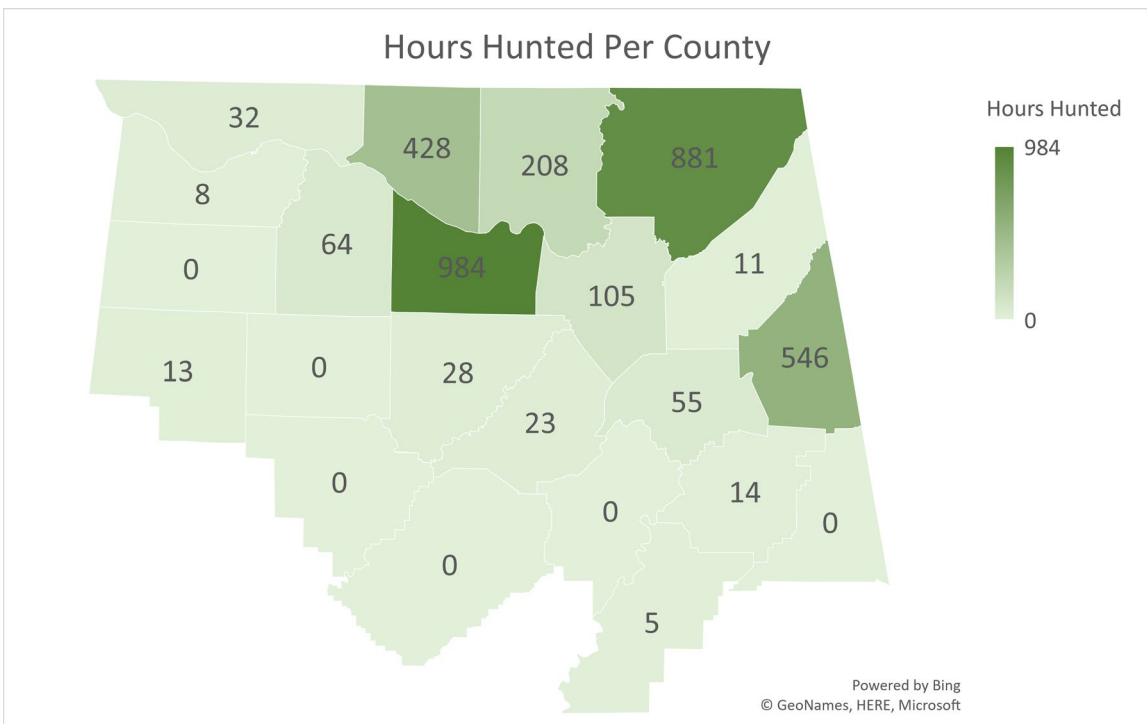


Figure 3. Number of hours hunted for sandhill cranes per county.

Of the 291 cranes harvested, 247 (85%) birds were harvested on private land and 44 (15%) were harvested on public land. Hunter effort and harvest data was further quantified by public land boundary (Figure 4). The majority of sandhill crane harvest from public land occurred across four of the eleven public land areas classified in the sandhill crane hunting zone. The data indicates there is no clear trend or correlation between the number of hours hunted on public lands and harvest number.

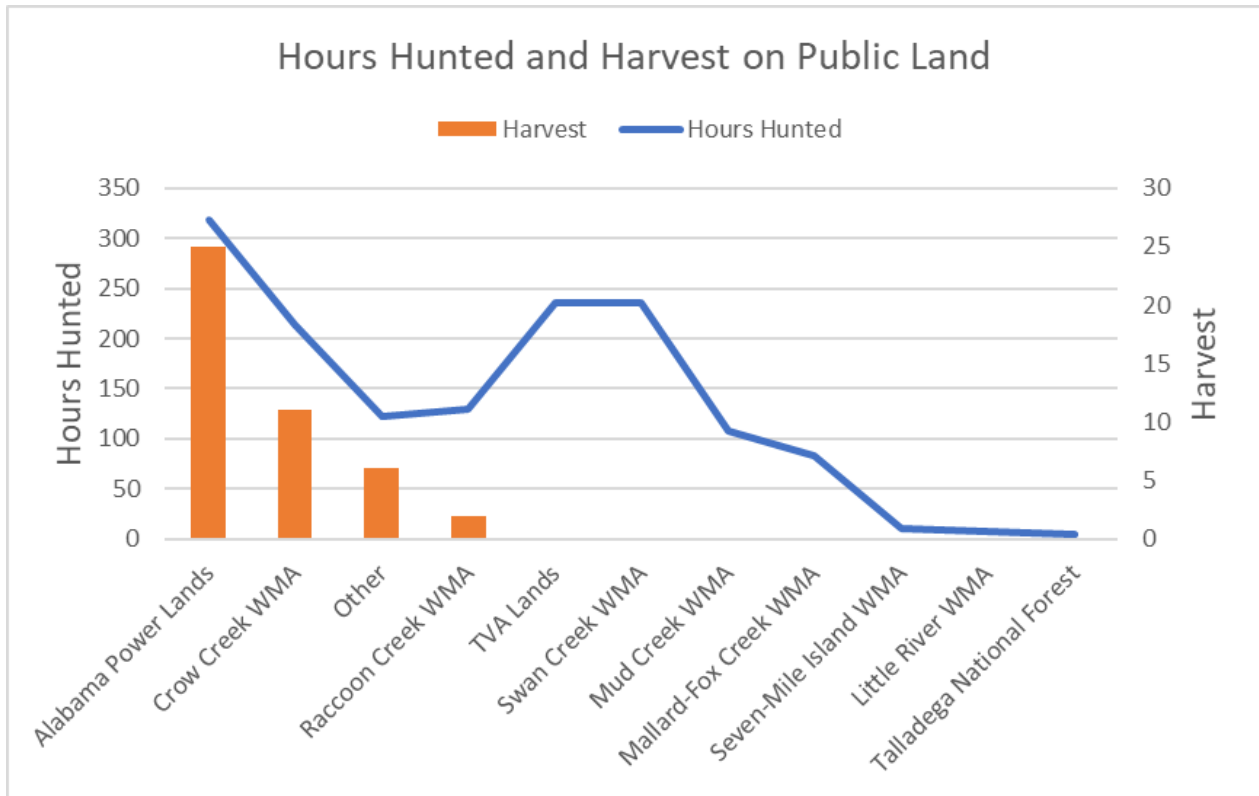


Figure 4. Number of hours hunted and harvest of sandhill cranes on public lands.

The 2019-20 Alabama sandhill crane season included 50 days of open hunting split over two segments. Trends in hunter effort, in terms of hours hunted per day, was similar to daily harvest trends throughout the season (Figure 5). During the second segment (Jan. 16-31) hunters exhibited an increase in effort and harvest after the 10-day split (Jan. 6-15). Over the 50-day season, the average hours hunted per day was 68.4 hours (range: 11 to 196 hours per day), while the average daily harvest was 5.8 cranes per day (range: 0 to 35 cranes harvested per day).

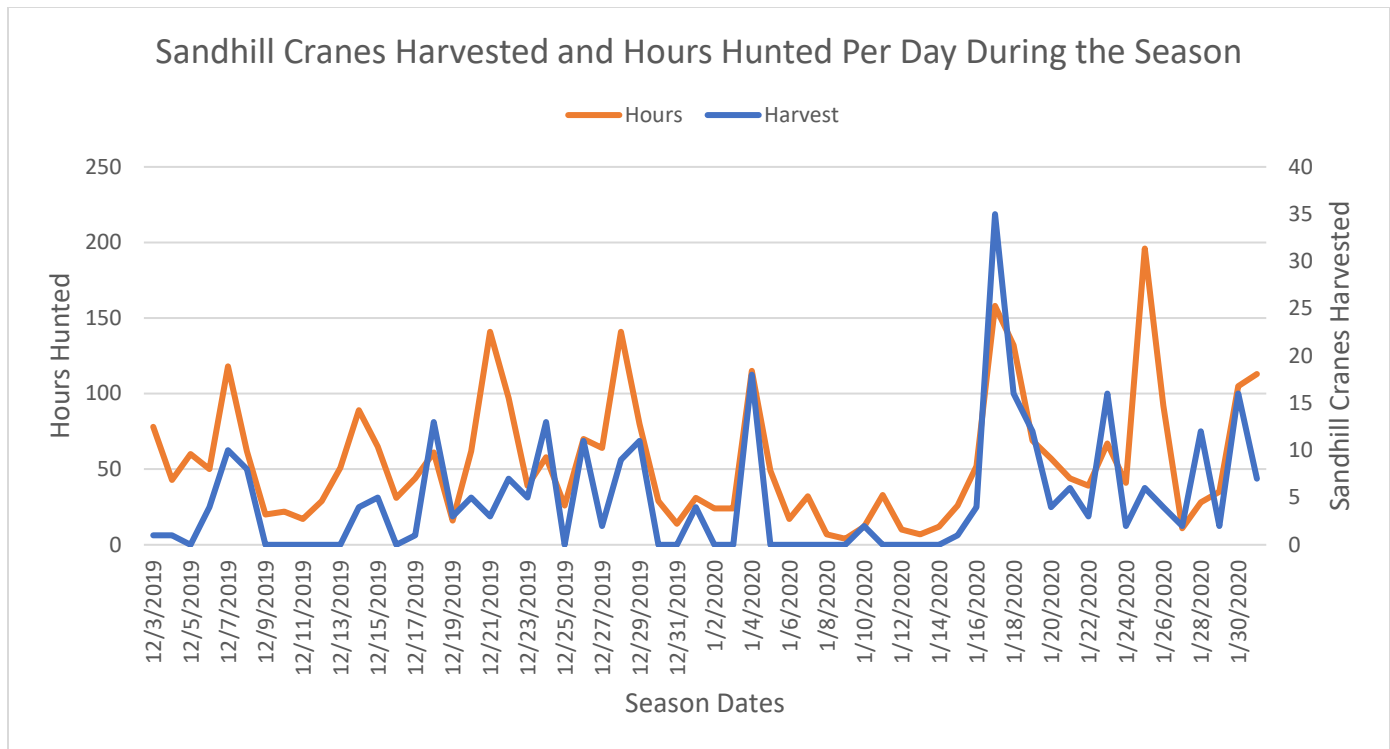


Figure 5. Total number of hours hunted and harvest of sandhill cranes for each day of the 2019-20 sandhill crane season.

Discussion

The 2019-20 Alabama sandhill crane season was considered a success based on the harvest percentage of 24% (291 of 1200 tags). This harvest percentage is well above the 9% (50 of 534 tags) harvest rate in Kentucky during their first sandhill crane hunting season in 2011-12 and comparable to the 29% (350 of 1200 tags) harvest rate experienced by Tennessee during their initial sandhill crane season conducted in 2013-14.

There were no reports of any illegal sandhill crane harvest or any whooping crane incidents during the 2019-20 Alabama sandhill crane hunting season.

In addition, above average temperatures during late fall and winter 2019-20 sandhill crane season delayed and reduced migration of the average number of wintering sandhill cranes in Alabama. The annual Mid-Winter Waterfowl Survey (Jan. 8-9, 2020) totaled 12,198 sandhill cranes, a 47% increase from the previous year’s survey of 8,315 (Figure 6). The 2020 survey total was 15% below the 5-year average of 14,346 (Figure 7).

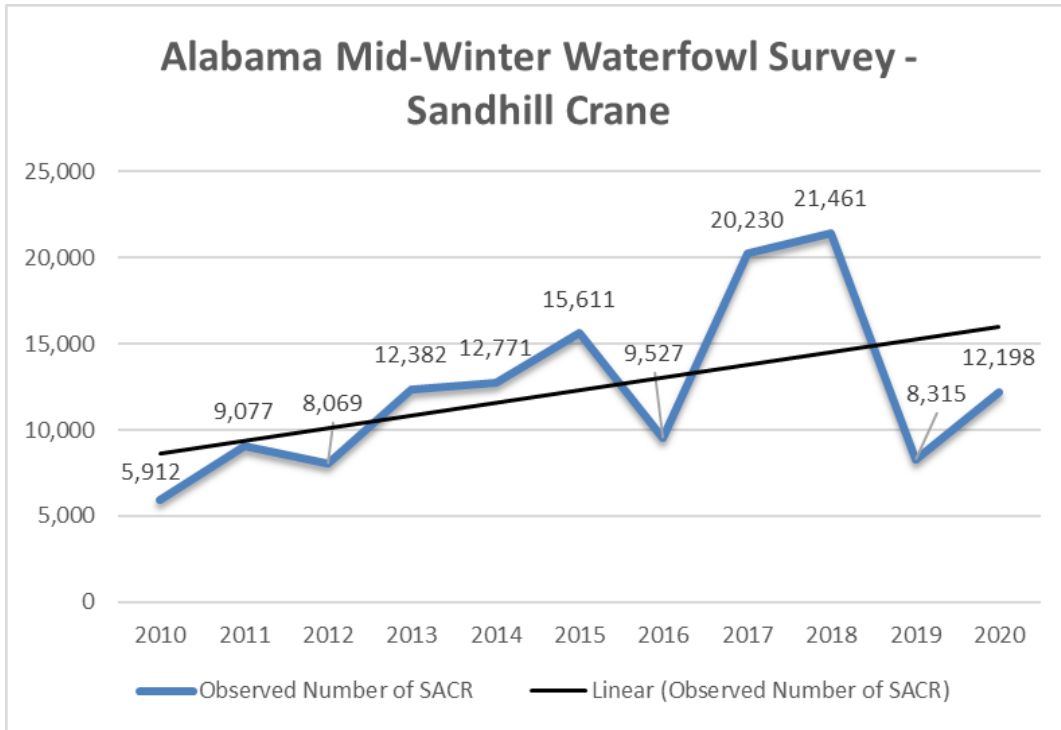


Figure 6. Observed number of sandhill cranes on the Alabama Mid-Winter Waterfowl Survey (2010-20).

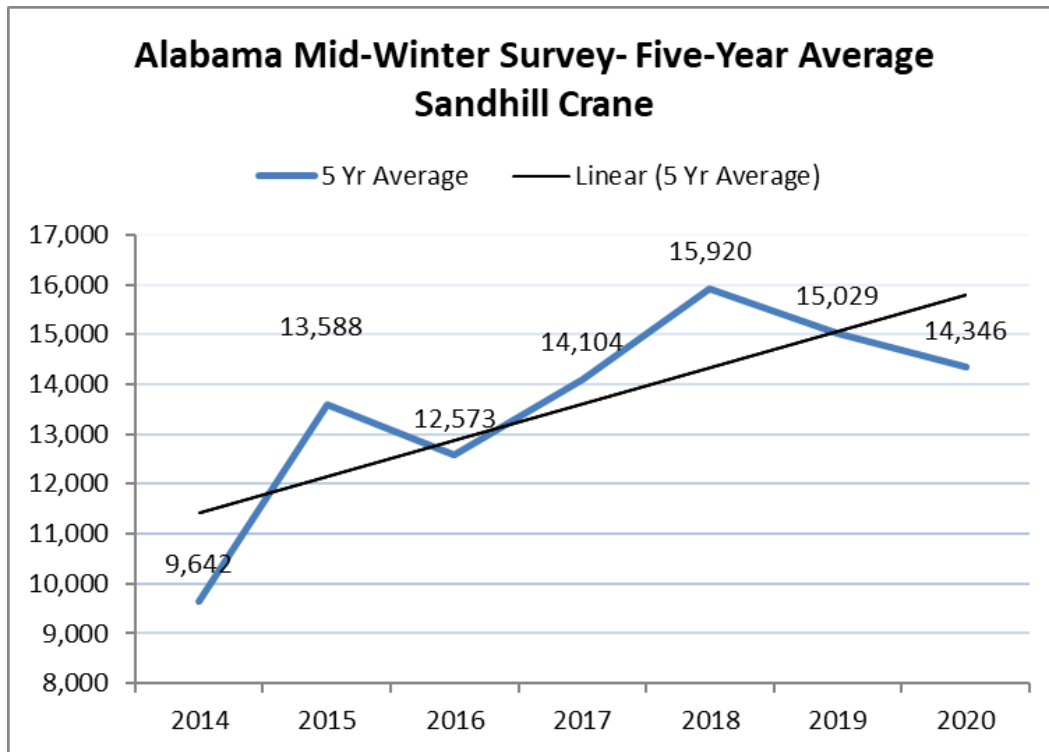


Figure 7. Five-year average of sandhill cranes observed on the Alabama Mid-Winter Waterfowl Survey (2014-20).

Although there are now three states with an open hunting seasons for the Eastern Population of sandhill cranes, harvest on this population remains minimal, averaging approximately 0.5% per year of the population index (Dubovsky 2019). The 2019 Sandhill Crane Fall Index Count totaled 89,513 birds, which is 121% above the long-term average of 40,476 cranes (Dubovsky 2020) (Figure 8).

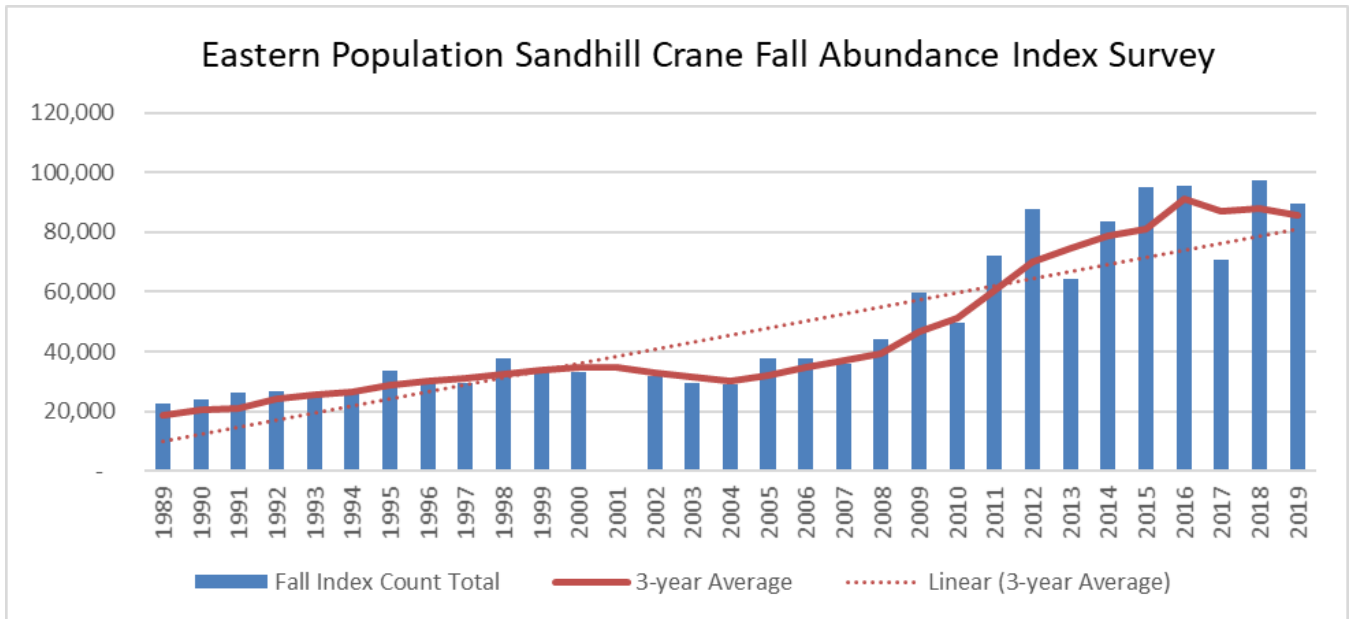


Figure 8. Eastern Population of sandhill crane Fall Abundance Index Survey (1989-2019) (Dubovsky 2020).

References

- Dubovsky, J.A. 2019. Status and harvest of sandhill cranes: Mid-Continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations. Administrative Report, U.S. Fish and Wildlife Service, Lakewood, Colorado. 15pp + tables and figures.
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- Van Horn, K., T. White, W. Atkins, T. Cooper, R. Urbanek, D. Holm, D. Sherman, D. Aborn, J. Suckow, K. Cleveland, and R. Brook. 2010. Management plan for the Eastern Population of Sandhill Cranes. Mississippi and Atlantic Flyway Councils, Madison, Wisconsin, USA.