

# 2020-21 Sandhill Crane Hunter Participation and Harvest Report

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Photo: Billy Pope, ADCNR



## **Introduction**

The 2020-21 season marked the second experimental hunting season for sandhill cranes in Alabama. The Alabama Division of Wildlife and Freshwater Fisheries (WFF) requested 400 permits and 1,200 tags, same as 2019-20, 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 8-29, 2020 and a total of 620 people applied. The computer automated draw was conducted on September 29, 2020 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 2020-21 Alabama experimental sandhill crane season dates spanned from December 4, 2020 – January 3, 2021 and January 11 -31, 2020, a 52-day season with a 7-day closure during the “Festival of the 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

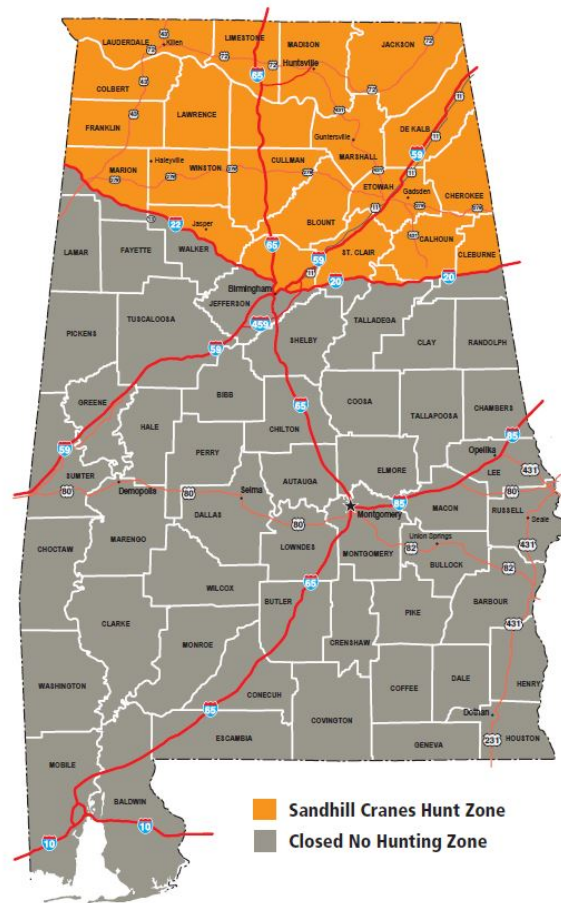


Figure 1. Alabama Division of Wildlife and Freshwater Sandhill Crane Hunt Zones.

### Experimental Season Results

Of the 400 permitted hunters, 379 (95%) fully completed the mandatory post-season hunter survey. Three hundred fourteen (314) or 83% of hunters participated in at least one hunt, while 65 (17%) did not attempt to hunt (Table 1). A total of 391 (33%) birds were harvested, 343 (88%) adults and 48 (12%) juveniles. A total of 46 (11%) cranes were wounded and unable to be retrieved. One hundred seventy-eight (178) or 57% 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	136	43%	0%	0	491	49%	3.6
1 Bird	48	15%	27%	48	129	13%	2.7
2 Birds	47	15%	26%	94	156	16%	3.3
3 Birds	83	26%	47%	249	230	23%	2.8
Total	314			391	1006		3.2

A total of 379 (97%) cranes were harvested when hunters were primarily hunting for sandhill cranes. Twelve (3%) birds were harvested when hunters incidentally harvested a crane while hunting other game species. Of the 1006 total hunts, 239 (24%) were successful (hunts in which hunters harvested at least one crane). A total of 3,827 hours was spent hunting sandhill cranes, with the average length of a sandhill crane hunt being 3.8 hours.

Cranes were harvested in 6 of the 22 counties within the crane hunting zone (Figure 2) and those 6 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=879; n=152), the Jackson County Waterfowl Management Areas and Refuges in Jackson County (n=1138; n=102), and Weiss Lake in Cherokee County (n=968; n=90).

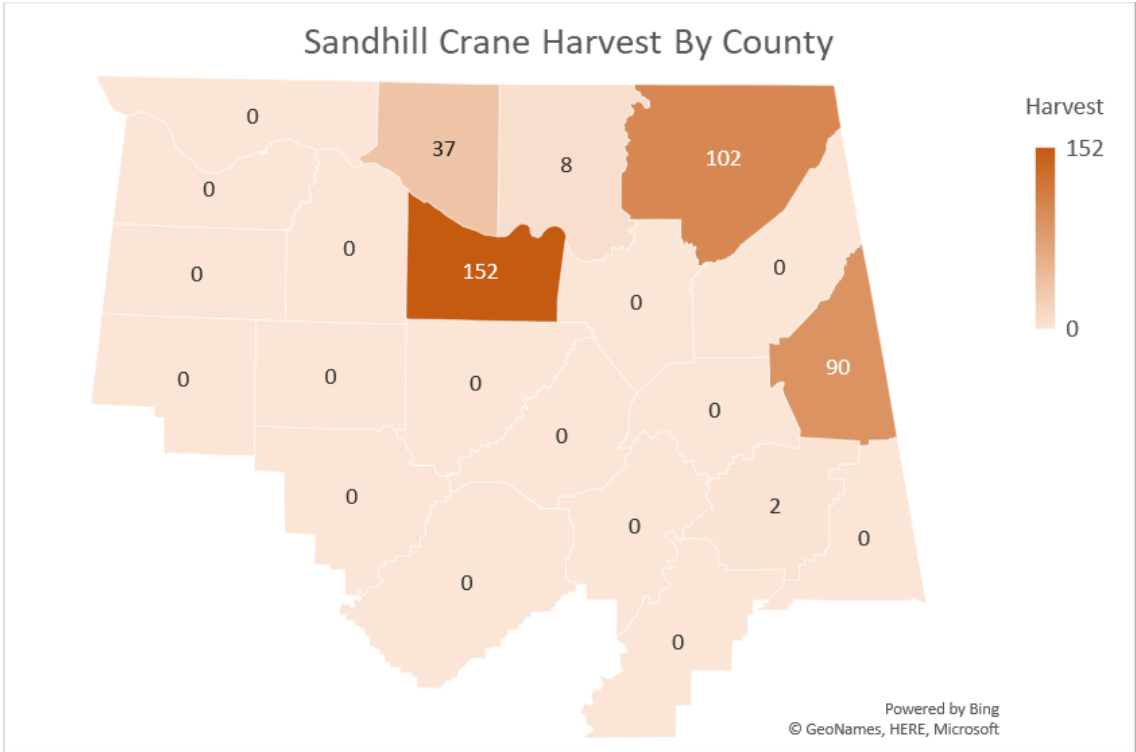


Figure 2. Number of sandhill cranes harvested by county.

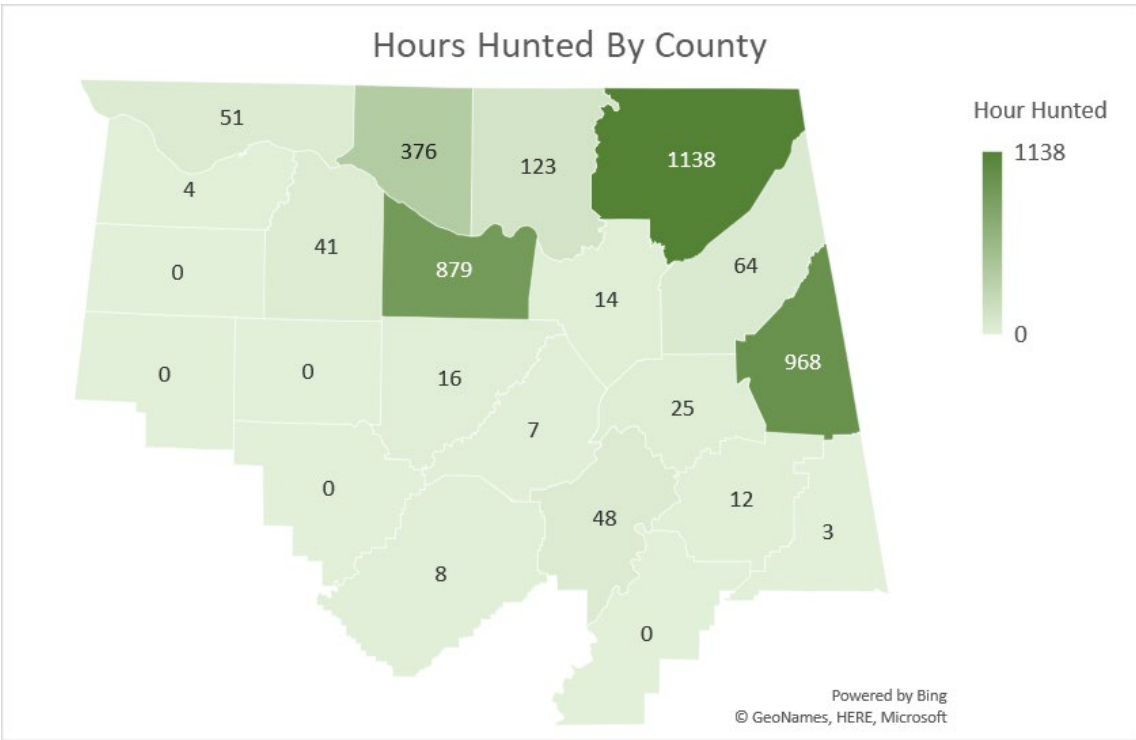


Figure 3. Number of hours hunted for sandhill cranes by county.

Of the 391 cranes harvested, 325 (83%) birds were harvested on private land and 66 (17%) were harvested on public land. Hunter effort and harvest data was further quantified by public land boundary (Figure 4). All the 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.

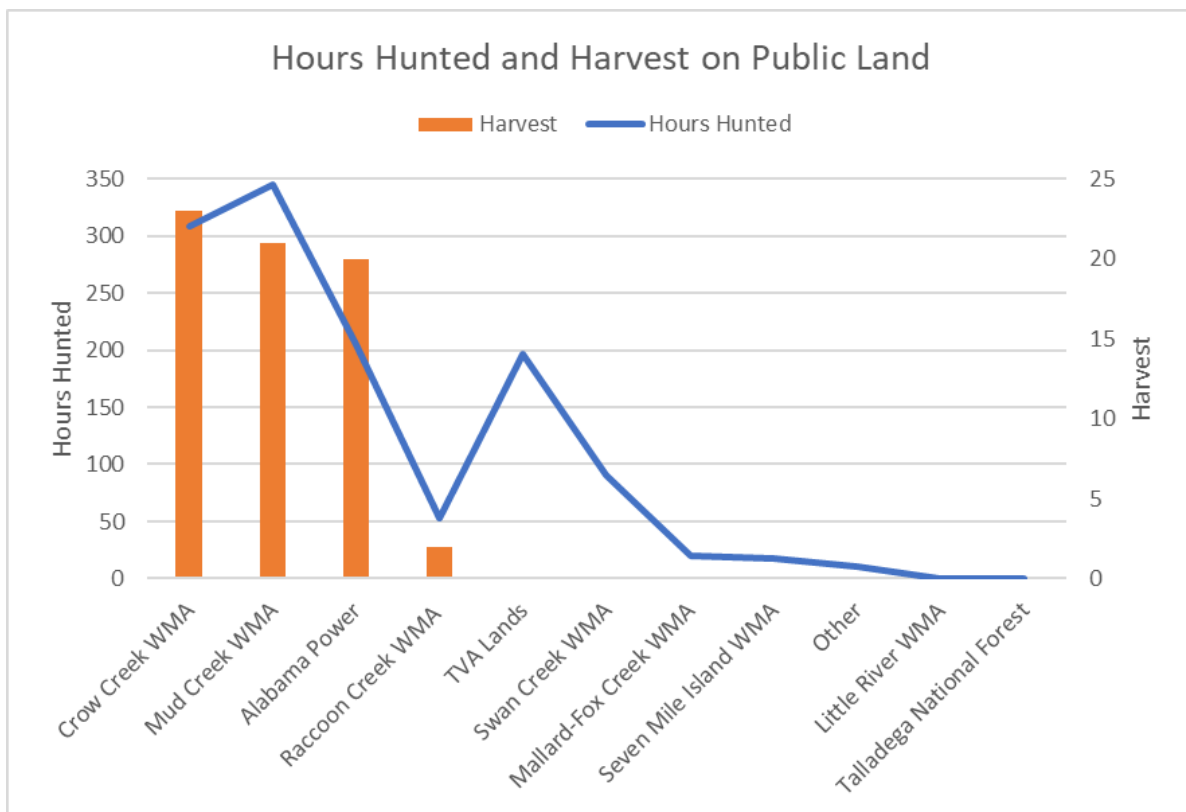


Figure 4. Number of hours hunted and harvest of sandhill cranes on public lands.

The 2020-21 Alabama sandhill crane season included 52 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. 11-31) hunters exhibited an increase in effort and harvest after the 7-day split (Jan. 4-10). Over the 52-day season, the average hours hunted per day was 64.8 hours (range: 10 to 206 hours per day), while the average daily harvest was 6.6 cranes per day (range: 0 to 35 cranes harvested per day).

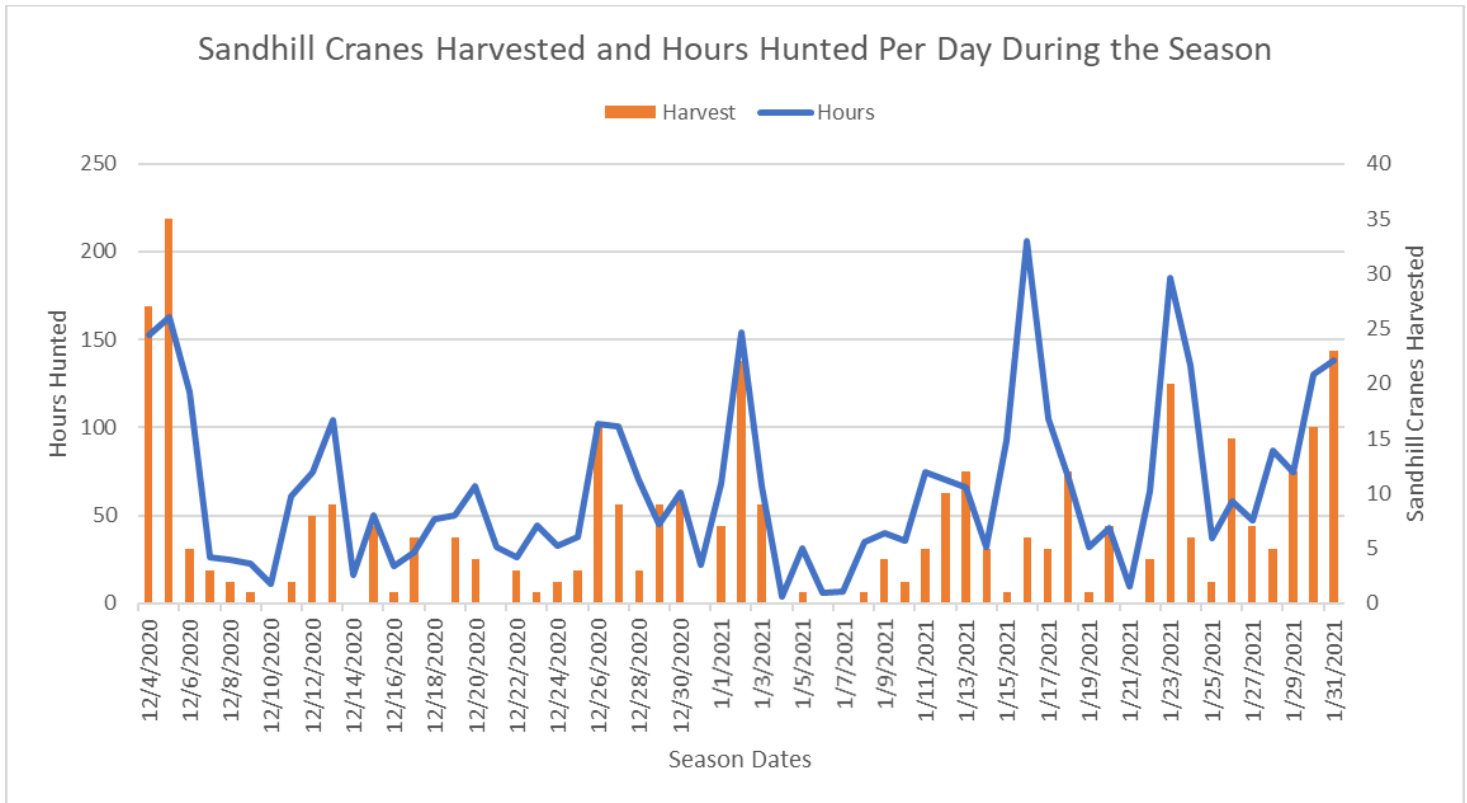


Figure 5. Total number of hours hunted and harvest of sandhill cranes for each day of the 2020-21 sandhill crane season.

**Discussion**

The 2020-21 Alabama sandhill crane season was considered a success based on the harvest percentage of 33% (391 of 1200 tags). This harvest percentage is more than double the 16% (92 of 570 tags) harvest rate in Kentucky during their second sandhill crane hunting season in 2012-13 and comparable to the 33% (393 of 1200 tags) harvest rate experienced by Tennessee during their second sandhill crane season conducted in 2014-15.

There were no reports of any illegal sandhill crane harvest or any whooping crane incidents during the 2020-21 Alabama sandhill crane hunting season.

Although temperatures were above average during late fall and winter 2020-21 in Alabama, significant winter weather hit the mid-west in late December and early January forcing cranes to migrate south. The timing of migration produced a record number of wintering sandhill cranes in Alabama. The annual Mid-Winter Waterfowl Survey (Jan. 5-6, 2021) totaled 23,354 sandhill cranes, a 92% increase from the previous year’s survey of 12,198 (Figure 6). The 2021 survey total was 36% above the 5-year average of 17,112 (Figure 7).

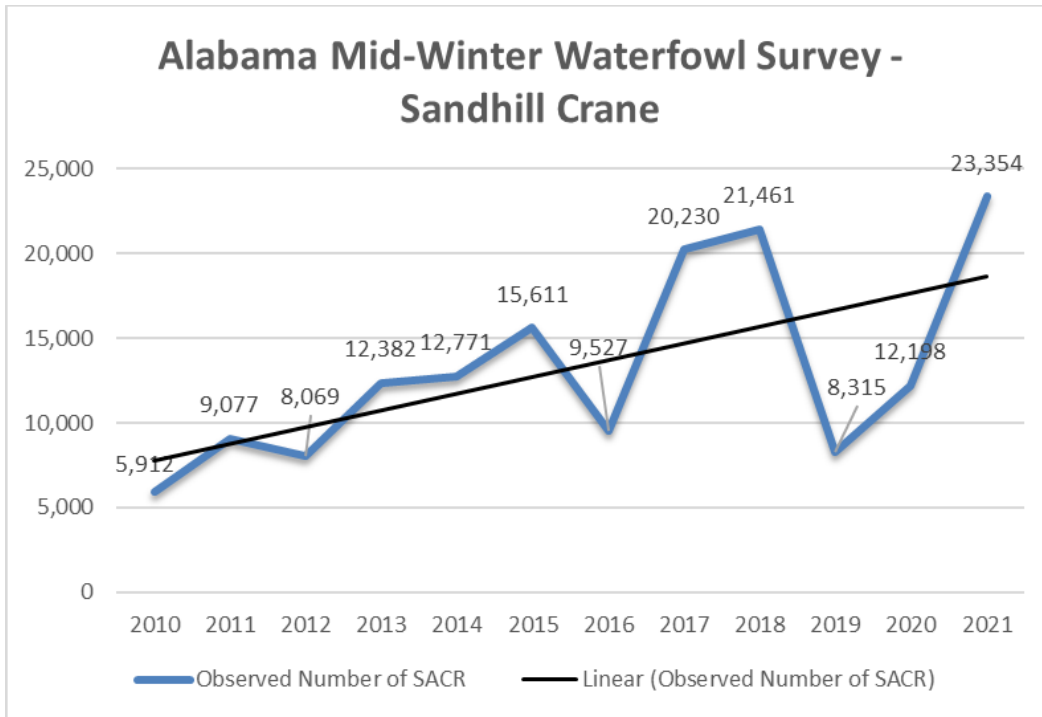


Figure 6. Observed number of sandhill cranes on the Alabama Mid-Winter Waterfowl Survey (2010-21).

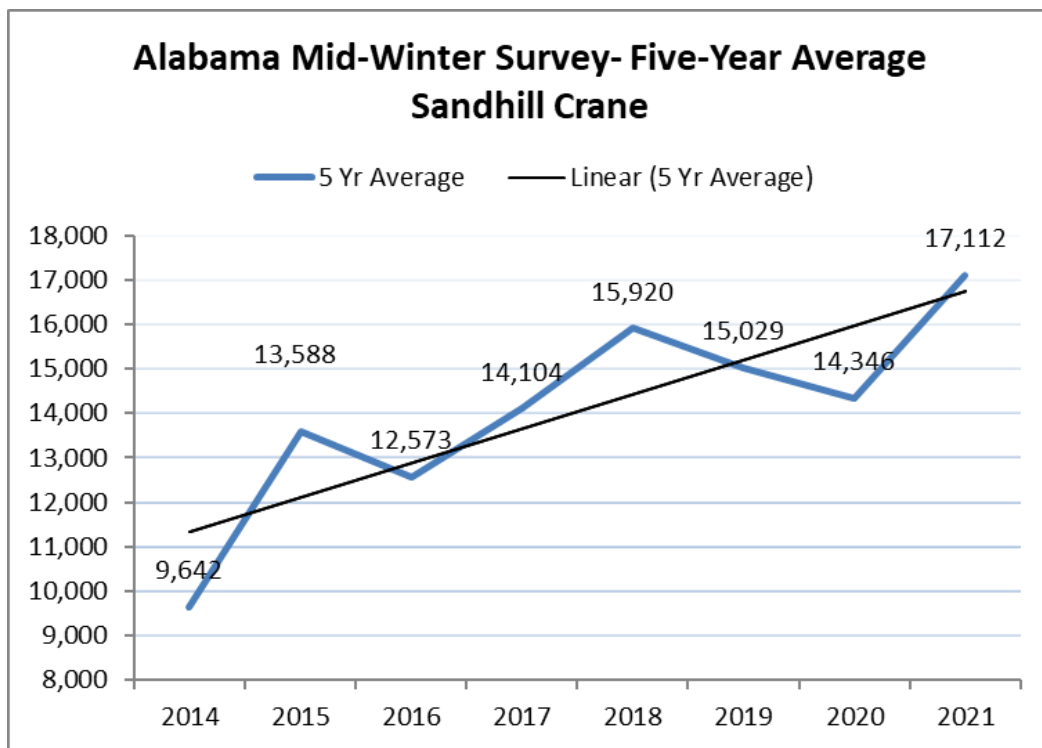


Figure 7. Five-year average of sandhill cranes observed on the Alabama Mid-Winter Waterfowl Survey (2014-21).



Although there are now three states with open hunting seasons for the Eastern Population of sandhill cranes, harvest on this population remains minimal, averaging approximately 1% per year of the population index (Dubovsky 2020). The 2020 Sandhill Crane Fall Index Count totaled 94,800 birds, which is 126% above the long-term average of 41,801 cranes (Dubovsky 2021) (Figure 8).

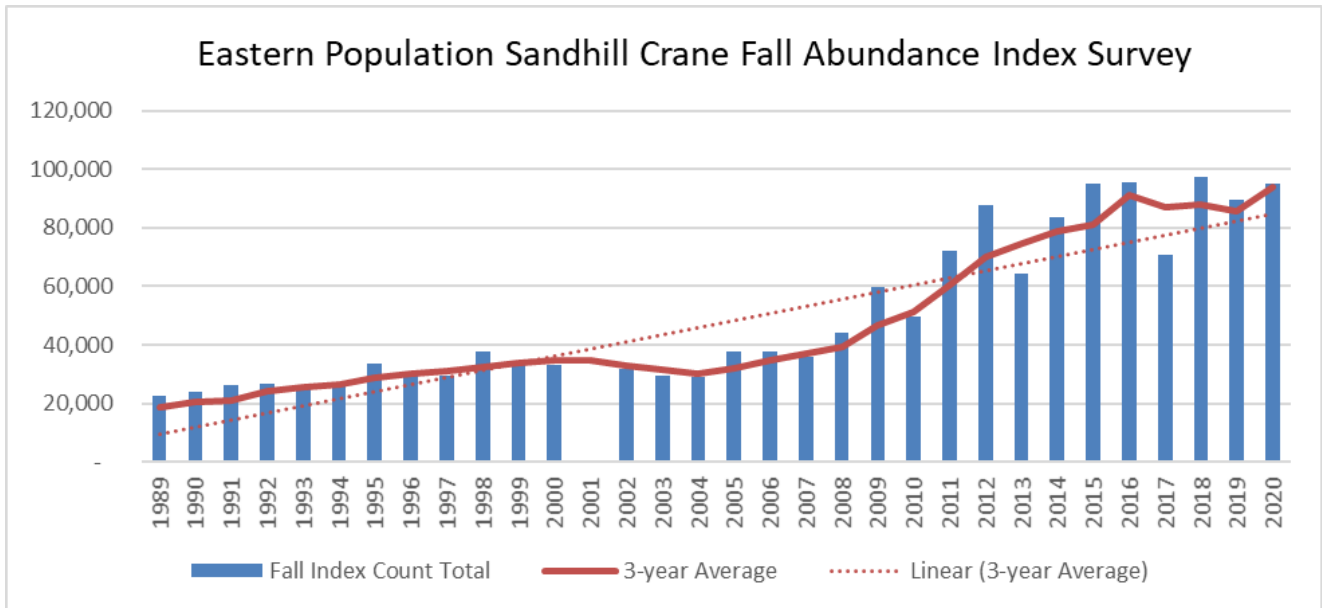


Figure 8. Eastern Population of sandhill crane Fall Abundance Index Survey (1989-2020) (Dubovsky 2021).

## **Comparison of Hunting Seasons**

The number of permits and tags allocated to hunters remained the same from the 2019-20 season to the 2020-21 season (Table 2). The number of permitted hunters who spent at least one day hunting increased by 17 hunters (6%). The number of successful hunters increase by 40 (29%) and the total harvest increased by 100 birds (34%).

Table 2. Comparison of Sandhill Crane Hunting Seasons in Alabama

Season	Number of Permits	Number of Tags	Number Who Hunted	Participation Percentage	Number of Successful Hunters	Success Rate	Total Harvest
2019-20	400	1200	297	77%	138	46%	291
2020-21	400	1200	314	83%	178	57%	391
Total	800	2400	611		316		682
Average	400	1200	306	80%	158	52%	341

## **References**

- Dubovsky, J.A. 2020. 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.
- Dubovsky, J.A. 2021. Status and harvest of sandhill cranes: Mid-Continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations. Unpublished Report, U.S. Fish and Wildlife Service, Lakewood, Colorado.
- 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.