Grapevine Lake 2021-2022 Deer Season

United States Corps of Engineers Grapevine Lake

Purpose

Deer Permits for United States Army Corps of Engineers (USACE) Wildlife Management Area (WMA) on the west side of Grapevine Lake are issued through a fair application process to which each hunter has an equal chance to be drawn. The requirement to have a permit helps protect the wildlife from being over harvested and preserves it for future generations to come.

Hunter surveys are issued to all permit holders to get a better understanding of how the hunting season went as far as hunter satisfaction and harvest numbers. These surveys help shape the future of the Grapevine Lake hunting seasons.

Deer Permit Background

In the 2021-2022 season, 251 hunters were issued permits to deer hunt in the WMA managed by the USACE on Grapevine Lake. At the end of deer season all the deer hunting permit holders are required to fill out and return a survey that helps guide the decisions we make for future hunting seasons. If a permit holder fails to return a survey at the end of the season, they become ineligible to be drawn for the following season. This past season, there were 748 total applicants. 37 of these hunters were disqualified due to offenses such as submitting multiple applications or failure to submit a survey if drawn in a past season. This left a total of 711 eligible hunters, which made the probability to get drawn about 35% this past year.

The survey was 11 questions long and included a variety of questions ranging from being about the number of times going hunting to asking if the hunters had any suggestions for future hunting seasons.

Survey Data Results

Of the 251 permit holders, 144 returned surveys. 12% of these permit holders did not hunt, which left us with 127 surveys from people who hunted. The success rate of these hunters was 19%. The rough estimate of doe to buck ratio based on these hunters' responses was 1.8 does per buck. There was a total of 28 deer killed, 17 bucks and 11 does, by 24 different hunters.

Question 1: How many times did you go hunting this season?

Question 1 includes responses from every permit holder who submitted a survey (144). This question showed even distributed responses across the board for the most part. The answer that was recorded the most was 1-5 times with 58 responses. The response that was chosen the least amount was 0 with 17 responses. (Figure 1)

Question 2: How many hours did you spend hunting on a typical day?

Question 2 only includes responses from the permit holders who hunted at least one day (127 hunters). This question shows us that over 70% of the time, hunters hunt between 3 and 5 hours. The responses from three hours and going longer than that includes 93.6% of responses. It can also be assumed that most hunters who chose the 6+ hours response hunted all day. This leaves only 6.3% of hunters who hunt less than 3 hours on a typical day. (Figure 2)

Question 3: Which days of the week did you hunt the most?

Question 3 included responses from 127 hunters of which two selected NA so we are assuming that they hunted all days equally. It was answered by the hunters choosing one of the seven days of the week, a combination of weekends and weekdays, combination of weekend days, or a combination of weekdays. This question showed us that 72.8% of hunters hunted a combination of days and not one specific day more than the rest. Saturday was chosen the most out of any singular day and had 17 hunters that chose Saturday as the day which they hunted the most. Overall, we can see that most hunters did not hunt one day more than all others. (Figure 3)

Question 4: What time of day did you go hunting the most?

Question 4 had 5 response options which included Mornings, Middle of the Day, Evenings, Mornings and Evenings, and All times of the Day. Mornings and Evenings was the option chosen the most by hunters being chosen by 36% of hunters (46), with another 29% (37) choosing the mornings response. 79.52% of hunters chose a response that included hunting the mornings, and 67.71% of hunters chose a response that included evenings. Only 3% of hunters chose middle of the day as their response, and only 17% of hunters chose a response that included the middle of the day. (Figure 4)

Question 5: How many other hunters do you typically see while hunting?

Roughly 58% of hunters recorded seeing 0-1 other hunters while hunting. No hunters recorded typically seeing 10+ other hunters while hunting. The most common response was 0-1 other hunter, 74 hunters chose this response. The second most common response chose by hunters was 2-3 other hunters seen, this response was recorded 46 times. 94.5% of hunters seen 3 or less hunters on a typical day. (Figure 5)

Question 6: How many deer did you harvest this season?

Roughly 19% of the hunters found success in the 2021-2022 Grapevine Lake Deer Season. 22 hunters killed one deer and 1 hunter killed two deer. 103 hunters (81%) did not harvest a deer. This information also tells us that 28 deer were killed throughout the season, by 24 different hunters. (Figure 6)

Question 7: If you killed deer, what was/were the sex(es)?

Question 7 only contains answers from the hunters who found success during the season (24 hunters). There were 28 deer harvested during the season. 17 of these deer were bucks and 11 were does.

Question 8: How many bucks did you see while hunting?

The most common response to question 8 was 0 bucks seen, with 37 hunters (29%) reporting this. 2 bucks seen was the second most common response with 27 hunters (21%) reporting this. 0-2 bucks seen

make up for 67% of the hunters' responses. Another response that stands out is 9 hunters reported seeing 10+ bucks while hunting. (Figure 7)

Question 9: How many does did you see while hunting?

The most common response to question 9 was 0 does seen, with 30 hunters (23.62%) reporting this. The second most common response was 10+ does seen, with 27 hunters (21%) reporting this. 9 does seen had the least number of responses with 2 responses. (Figure 8)

Question 10: Please rate, on a scale of 1 to 5, your overall satisfaction with your hunting experience this season. 1 = horrible, 5 = spectacular.

The most common response to question 10 was both 4 and 5, they both had 40 responses each. 3 was the next highest satisfaction level chosen, with 35 responses (27.5%). The Least common response was 1, the lowest satisfaction level. Hunters recorded this response 5 times (4%). The top two satisfaction levels accounted for 63% of the hunters whereas the Lowest two satisfaction levels accounted for 9.5% of the hunters. (Figure 9)

Question 11: How can the Corps of Engineers improve your overall hunting experience at Grapevine Lake?

Only 54 of the 127 hunters left suggestions on their survey. With these suggestions being open-ended answers, they were categorized or summarized to fit them in alike categories so we could attempt to see if there were any trends of people thinking along the same lines as one another. Once this was done, it was clear there was 1 common answer that stood out more than the others. The most common general response was the hunters suggesting to improve/add places to access the hunting area more effectively. This general response had 48% of the suggestions (26 votes). A couple other of the more common suggestions include placing some type of ban on hog hunting to reduce deer poaching (7 votes) and mowing some trails (6 votes). (Figure 10)

Key take-aways

57% of permit holders returned surveys (144), this is a 10% increase from last year when it was 47% but is still not as high as we would like. Of these permit holders, the harvest success rate was roughly 19%, which is up from last year's 10%.

Saturdays appeared to be the day when the Grapevine Lake WMA was visited the most, so if you are looking to stay away from other hunters you would either need to try to get to a more remote area of our WMA or try to hunt during the week if possible. However, I would like to re-word this question from next years survey to attempt to get more specific answers. Based on question 5, There does not appear to be too many hunters in the WMA, as most hunters typically saw 3 or less other hunters while hunting (Figure 5).

There were many deer seen by hunters through the deer season. Question 9 of the survey shows us a trend that many hunters had either seen none to hardly any does or they saw 10 or more (Figure 8). Question 8 showed the number of bucks seen by hunters and this showed more of a decreasing trend with the highest value being hunters seeing none to hardly any bucks and decreasing with the number of bucks seen (Figure 7). With the answers to these two questions, we were able to get a rough estimate of the buck to doe Ratio which was 1:1.8. This is an extremely rough estimate due to the

different factors that play into the numbers we received. According to Texas Parks and Wildlife Department (TPWD), the ideal buck to doe ratio is around 1:1.

Question 9 shows us that over 71% of the hunters were satisfied with their experience, and another 19% that were neither satisfied nor dissatisfied. This tells us that there isn't too much that needs to be changed at this time. Question 10 showed us that the most common suggestion to improve satisfaction is to add more and/or different access points or parking areas to the property. There are no current plans to add these areas due to a lack of resources including funding and proper location although there are possible opportunities for this in the future.

Upcoming Season

As of now the upcoming season is planned to be ran very similar to this pervious season. We plan to run the application process in July for a period of 1 month, the drawing will take place and late August and all applicants who are drawn will be required to pick their permit up at the Grapevine Lake Project Office.

Before the season a deer population survey was conducted to get a better understanding of how many deer are in the Wildlife Management Area. This survey started with the property being broken down into 200-acre parcels. We then placed 1 bait station and 1 trail camera within each individual parcel. Each bait station was pre-baited for 4 days and monitored for 10. Unfortunately, one of the computers where the pictures were downloaded before counting, crashed and we lost all the pictures to 9 of the 18 sites. The photos that were lost were not counted prior to the computer crashing however they were looked at.

We ran the data we didn't lose through formulas from TPWD. This data told us that the deer population in the Grapevine Lake WMA is healthy. Even with the formula telling us this, we are still unsure whether its true due to all the missing data. Hunters also had the option to submit pictures of their kills and over 1/3 of the bucks that were harvested, were never caught on trial camera for the survey (including the pictures that were lost). This tells us that we should consider breaking the parcels into 100-acre segments instead of 200-acres to ensure we do not miss as many deer.

Lastly, not everyone who gets a permit is able to hunt. However, the returned survey is still valuable information to us. Remember, if a permit holder fails to submit a survey by the deadline, they will be ineligible for our future drawings.

Data Charts and Graphs

Figure 1: Data chart from Question 1 of the 2021-2022 deer hunter survey.

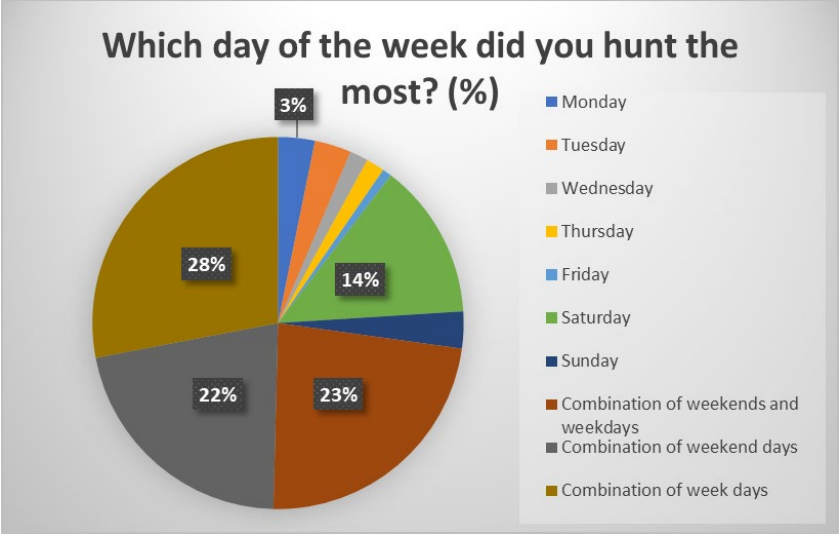*Figure 2: Data chart from Question 2 of the 2021-2022 deer hunter survey.*

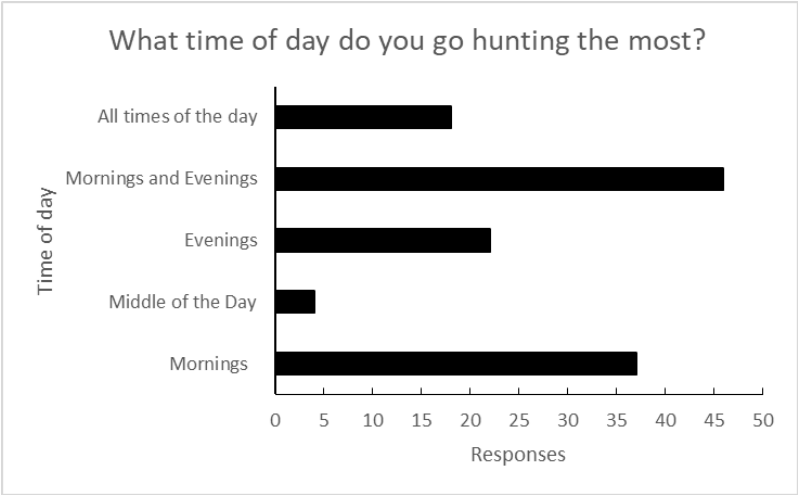*Figure 3: Pie chart from Question 3 of the 2021-2022 deer hunter survey.*

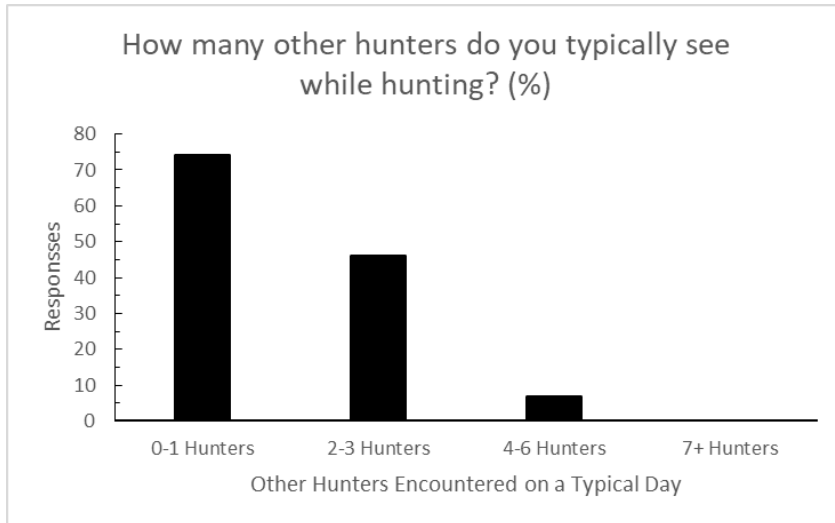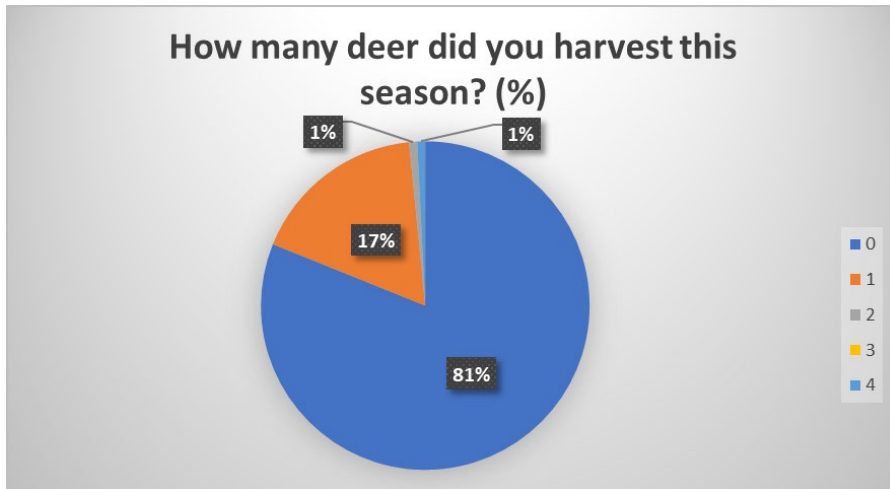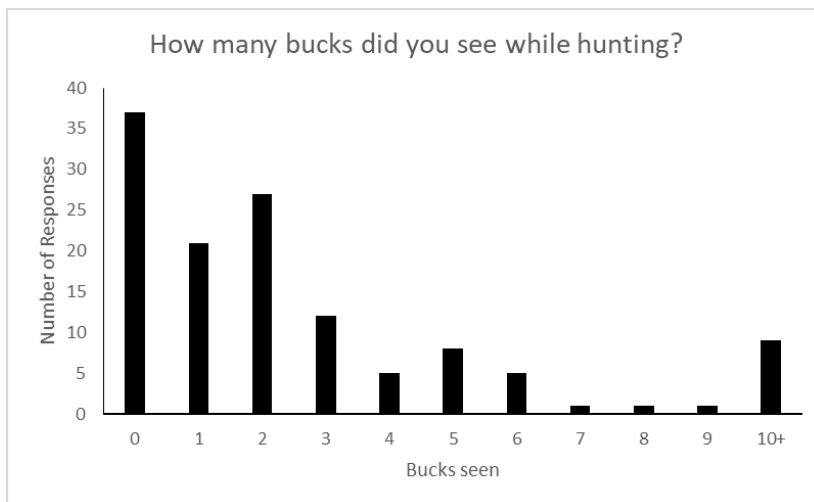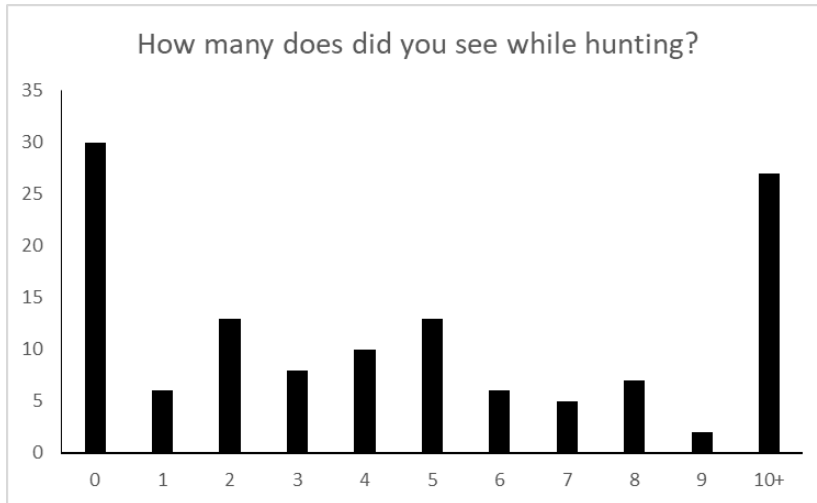*Figure 4: Data chart from Question 4 of the 2021-2022 deer hunter survey.*

Figure 5: Data chart from Question 5 of the 2021-2022 deer hunter survey.

Figure 6: Pie chart from Question 6 of the 2021-2022 deer hunter survey.

Figure 7: Data chart from Question 8 of the 2021-2022 deer hunter survey.

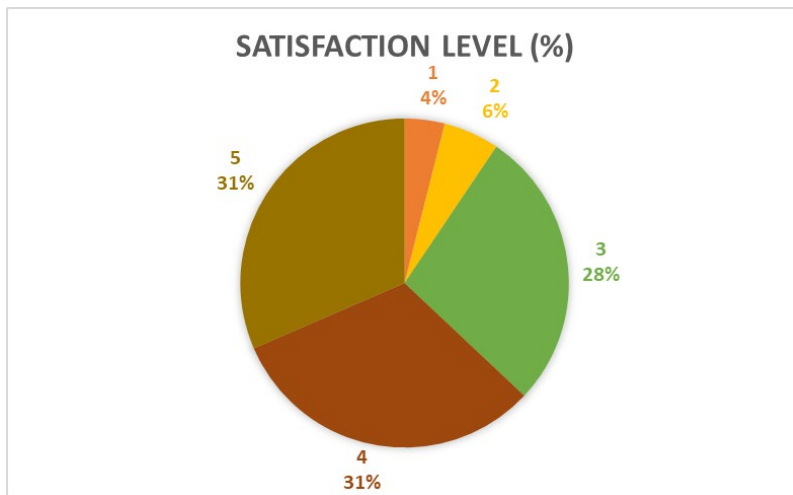*Figure 8: Data chart from Question 9 of the 2021-2022 deer hunter survey.*

Figure 9: Pie chart from Question 6 of the 2021-2022 deer hunter survey. Satisfaction Levels with 1 being the lowest and 5 being the highest.
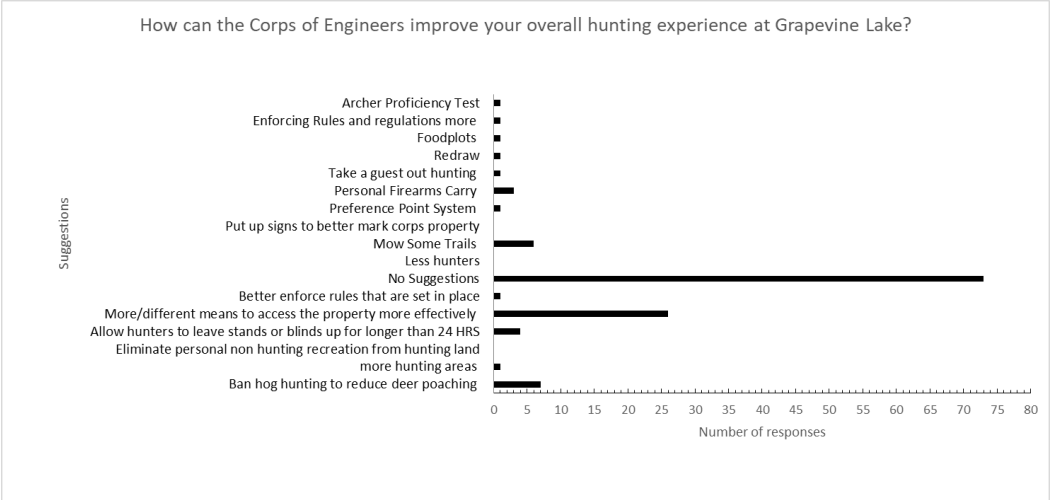
Figure 10: Data chart from Question 8 of the 2021-2022 deer hunter survey