



Results of the 2016 Duluth City Bowhunt

Report prepared by Brian Borkholder on behalf of the Arrowhead Bowhunters Alliance

February 2017

GENERAL 2016 SUMMARY: The Arrowhead Bowhunters Alliance (ABA) placed 352 hunters into the 2016 Duluth City Bowhunt. Those 352 hunters harvested a total of 282 white-tailed deer (236 antlerless & 46 antlered males) (Table 1). In addition, three adult females were found poached in DHAs 10C (two) and DHA 6. The three poached males will not be included in the 2016 statistics and summaries presented in this document.

For the second time in the twelve-year history of the Duluth Bowhunt, the harvest rate as measured by the number of deer harvested per hunter was less than 1.0 (Tables 1 and 2). Harvest rates for the 2016 season were 0.80 ± 0.12 deer / hunter (Table 2). This represents the harvest for all registered hunters, including those hunters that failed to harvest any deer. Not knowing whether failing to harvest a deer in 2016 was the result of not spending much time in the woods, or not even getting into the woods is unknown. All of the hunters not reporting any harvested deer were removed, and the reported harvest / successful hunter statistics are presented in Tables 1 and 2. Harvest for successful hunters averaged 1.54 ± 0.27 deer (Tables 1 & 2), also the lowest harvest success ever reported for the Duluth Hunt.

The placement of 352 hunters in 2016 is in line with the average number of hunters placed since 2011 (Blue bars in Figure 1). The number of individuals harvesting deer in 2016 is similar to that observed in 2005 (Red line in Figure 1). However, in 2005, only 192 hunters were placed, where 92.2% harvested a deer. Total harvest is at the lowest level since 2005, when far fewer hunters were placed (Blue bars in Figure 2). When standardized for number of participants, 2016 saw the lowest number of antlerless and total harvest per hunter (Blue & red lines in Figure 2).

Similar to past seasons, the 2016 harvest was dominated by antlerless individuals (Table 1, Figure 3). Of the 282 deer harvested, 83.7% (N=236) were antlerless individuals. The breakdown of antlerless was 149 adult does, 47 fawn does, and 40 fawn bucks (Figure 3).

The Duluth City Council has established 44 Designated Hunting Areas (DHAs) throughout the City of Duluth. Harvest among these DHAs is highly variable (Figure 4). DHA 1, for the third year in a row, had the highest reported harvest of 24 deer. Hot spots are areas outside of DHAs, which the ABA Board and the Duluth Police Department set up on an ad hoc basis to target localized problem deer populations. In 2016, only 10 deer were harvested from Hot Spots (Table 4). Figure 5 shows the City of Duluth with the 44 various DHAs identified, along with the number of deer harvested for each of the DHAs.

Cumulative harvest throughout the season, by week number, is shown in Figure 6. 2016 data is depicted by the orange diamonds. Lighter markers present data from other seasons, 2008 – 2015. The harvest is the lowest observed in the Duluth Hunt.

For the twelve seasons of the Duluth Bowhunt, total harvest by registered bowhunters is 5854 white-tailed deer; of which 4919 were antlerless while 935 were antlered males (Table 1). Only 15.9% of the harvest was antlered males, completely in line with the stated goals of this hunt to reduce antlerless individuals, and thus the reproductive potential of the Duluth deer herd.



Total harvest had been somewhat stable from 2006 thru 2012, between 500 and 600 animals (Blue bars in Figure 2). Beginning with the 2013 season, and continuing thru the 2016 season, harvest dropped well below this level (Figure 2), to the frustration of many of the Duluth hunters. The number of deer harvested / hunter was essentially flat at about 1.8 deer / hunter from 2007 – 2010, and dropped to approximately 1.0 deer / hunter in 2013 (Red line in Figure 2). In 2015, it dipped below 1.0 for the first time. 2016 saw a further decline in harvest / hunter. The percentage of hunters harvesting deer is also at the lowest observed level (Figure 7). During the first season of the hunt, more than 92% of participating hunters harvested a deer. In 2016, that percentage is below 50% (Figure 7, Table 1).

The 2016 results continue the observed trend of fewer deer harvested per participant, and fewer deer total harvested. Deer populations, by all accounts, are down from levels observed prior to the start of this Hunt Program. Our hunters have been very successful at lowering the Duluth deer herd as promised to the Duluth residents and City Council. While not enjoyable for those hunters that have to sit eight, ten, or even twelve times between deer sightings, it is hard to argue against the successes observed in this Hunt Program. Our hunters are to be commended.

Section 2: Further Evidence of a Declining Duluth Herd and Declining Duluth Hunter Success

Raw harvest numbers do not tell the complete story. Effort needs to be accounted for. When standardized by effort (number of hunters) or area (harvest / mile²), harvest trends are pretty clear. Harvest per square mile (mile²) is presented in a map view of the City of Duluth (Figure 8) and by various geographic areas of the City (Figure 9). Figure 10 shows a consistent decline in harvest / mile² over the entire history of the hunt on a city-wide basis. In 2016, harvest / mile² is only about 1/3rd of our first year's harvest (Figure 7). When looking at general areas of the City, this same declining trend is observed over the eleven-year period where DHA boundaries have not changed (Figure 11). Table 4 presents the raw data for the last eleven years. Harvests in excess of 20 deer harvested / mile² were once common (Table 4, 2006 – 2012 seasons), but in 2016, harvest was never observed to be higher than 12.4 deer / mile² within any area of the City (Table 4, DHA 15). These data further suggest that the deer herd is not as high as it was at the start of this Hunt Program in 2005.

Another way of analyzing harvest is on a per hunter basis. Figures 2 (red line) and 7 present data suggesting a decline in hunter success. As this hunt has progressed, a benchmark for success had been 2 deer / hunter, presumably one antlerless and one antlered deer. Figure 12 presents this data, and illustrates how much has changed between 2005 and the decline beginning in 2013. Between 2005 and 2016, the percentage has dropped from just under 60% of hunters harvesting two or more deer, to less than 20% in 2016 (Figure 12). Figure 13 shows a consistent decline in total harvest / hunter, antlerless harvest / hunter, and antlered buck harvest / hunter, where the slope of all three regressions is negative. The new benchmark for hunter success, and subsequent hunter expectation, may need to be adjusted downward to perhaps only a single deer / hunter.

Hunters were placed into discrete categories in order to look at hunting success. Two digits (XY) will be used to describe each hunter, where X = the number of antlerless harvested and Y = the number of adult males. Thus, 00 = no deer harvested; 10 = one antlerless and no antlered males; 50 = five antlerless and no males; 11 = one antlerless and 1 male. Figure 14 presents the hunter categories for the 2016 season. By itself, this graph doesn't reveal much about the 2016 Hunt, save that 179 individuals failed to register a deer. When compared to other seasons (Figure 15), we see an increase in the proportion of our hunters that failed to register any deer (category 00) (red line), and a slight increase in the number of hunters registering a single antlerless deer (10) (black line). The proportion of hunters registering one antlerless and one antlered (11) peaked in 2011, and has been declining since (green triangles).



Table 1. Summary Statistics for the Duluth City Bowhunt. Total harvest / hunter for each deer type reports the harvest for all hunters participating in the Hunt. Harvest / successful hunter removes all of the hunters that failed to register a deer during each season. Percentage Donated reports the percentage of harvested deer donated to friends, family, or food shelves. The number of hunters and percentage harvesting two or more deer is also reported, along with the percentage of hunters that were successful in harvesting any deer. Mean (average), maximum and minimum observed values are summarized at the bottom of the table. Total harvest numbers are also presented.

	# Hunters Placed	# Hunters Harvesting	Total Harvest	Total Antlerless	Total Antlered	Total Harvest / Successful Hunter	Buck Buck Harvest / Successful Hunter	Antlerless Antlerless Harvest / Hunter	Antlerless Antlerless Harvest / Successful Hunter	% Donated	No. Hunters Harvesting 2+ Deer	% Hunters Harvesting 2+ deer	% Hunters Harvesting a Deer
2005	192	177	333	265	68	1.73	1.88	0.35	0.38				92.2%
2006	252	196	564	485	79	2.24	2.88	0.31	0.40		149	59.1%	77.8%
2007	315	252	568	477	91	1.80	2.25	0.29	0.36		155	49.2%	80.0%
2008	289	220	533	458	75	1.84	2.42	0.26	0.34		141	48.8%	76.1%
2009	315	247	588	494	94	1.87	2.38	0.30	0.38	51.7%	153	48.6%	78.4%
2010	339	272	604	515	89	1.78	2.22	0.26	0.33	61.8%	159	46.9%	80.2%
2011	377	268	587	476	111	1.56	2.19	0.29	0.41	57.9%	168	44.6%	71.1%
2012	359	274	574	483	91	1.599	2.09	0.25	0.33	53.7%	162	45.1%	76.3%
2013	391	231	399	346	53	1.020	1.73	0.14	0.23	58.3%	98	25.1%	59.1%
2014	355	208	451	375	76	1.270	2.17	0.21	0.37	51.2%	107	30.1%	58.6%
2015	375	209	371	309	62	0.99	1.79	0.16	0.30	47.7%	102	27.2%	55.7%
2016	352	175	282	236	46	0.80	2.01	0.13	0.26	50.4%	70	19.9%	49.7%
Mean	325.92	227.42	487.83	409.92	77.92	1.54	2.17	0.25	0.34	54.1%	133.09	40.4%	71.3%
Min	192	175	282	236	46	0.80	1.73	0.13	0.23	47.7%	70.00	19.9%	49.7%
Max	391	274	604	515	111	2.24	2.88	0.35	0.41	61.8%	168.00	59.1%	92.2%
Sum			5854	4919	935								



Table 2. Hunter harvest statistics for the 2016 Duluth Bowhunt, along with long-term averages. As in Table 1, total harvest / hunter for each deer type reports the harvest for all hunters participating in the Hunt. Harvest / successful hunter removes all of the hunters that failed to register a deer during each season.

	2016	Long-term Duluth Average
Total Harvest/Hunter	0.80 ± 0.12	1.54 ± 0.27
Buck Harvest / Hunter	0.13 ± 0.04	0.25 ± 0.04
Anterless Harvest / Hunter	0.67 ± 0.10	1.29 ± 0.24
Harvest / Successful Hunter	1.61 ± 0.16	2.17 ± 0.20
Buck Harvest / Successful Hunter	0.26 ± 0.07	0.34 ± 0.04
Anterless Harvest / Successful Hunter	1.35 ± 0.14	1.79 ± 0.20

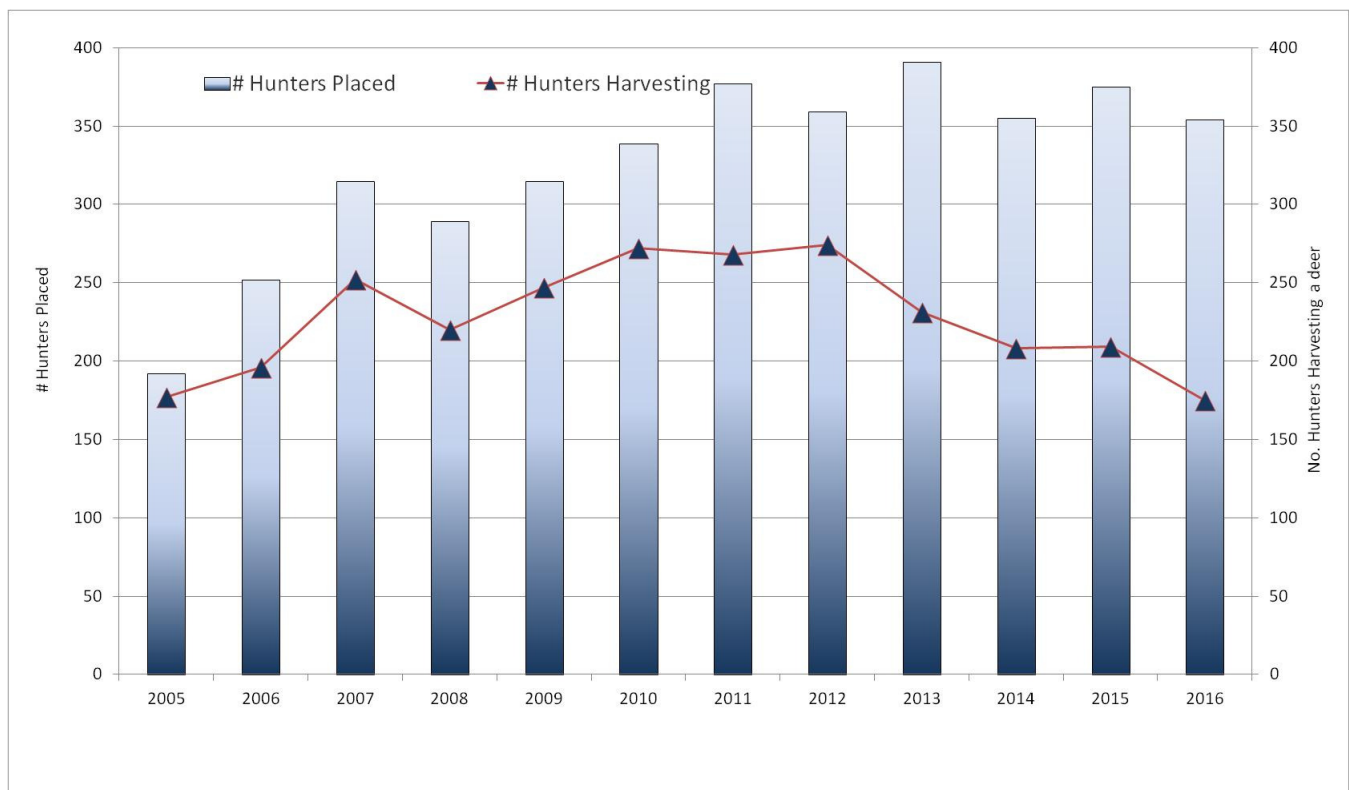


Figure 1. Number of hunters placed (left axis) and the number of those hunters harvesting deer (right axis) in each season of the Duluth City Bowhunt. The placement of 352 hunters in 2016 is in line with the average number of hunters since 2011. The number harvesting deer in 2016 is similar to that observed in 2014.



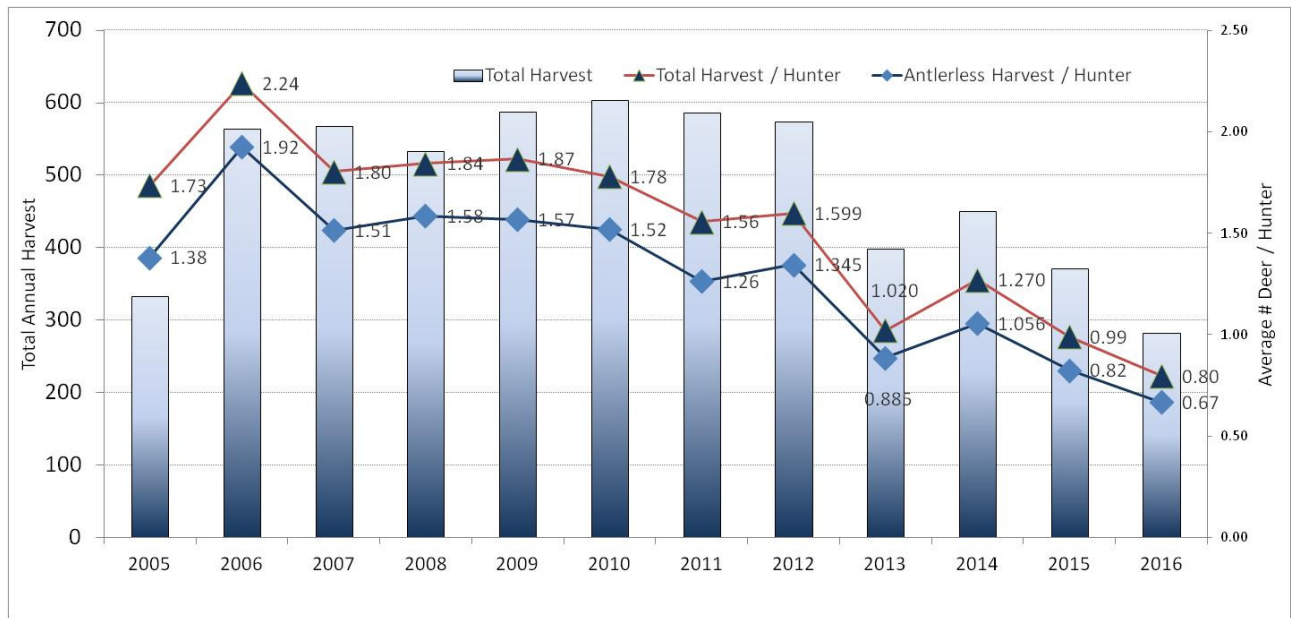


Figure 2. Total harvest, total per hunter, and total antlerless per hunter for the twelve seasons of the Duluth City Bowhunt. Total harvest is at the lowest level since 2005, when far fewer hunters were placed. When standardized for number of participants, 2016 saw the lowest number of antlerless and total harvest per hunter.

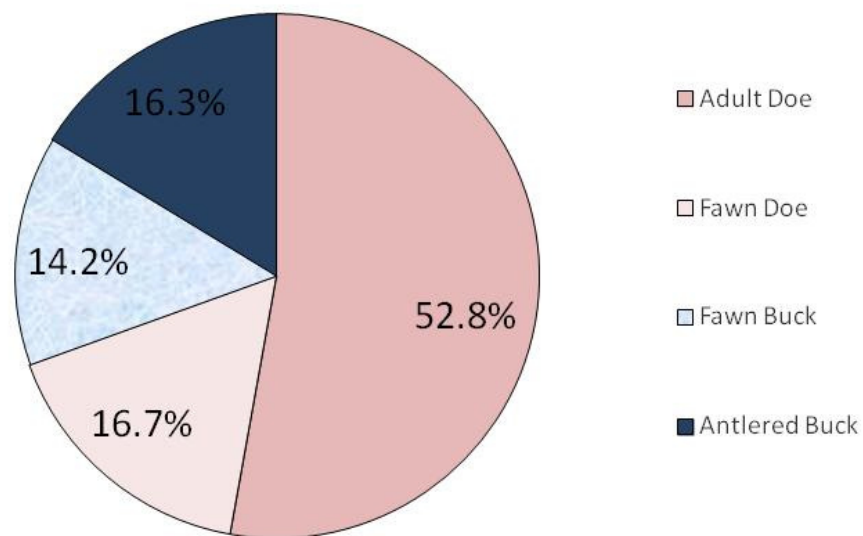


Figure 3. Breakdown of harvest by deer type for the 2016 Duluth Bowhunt.



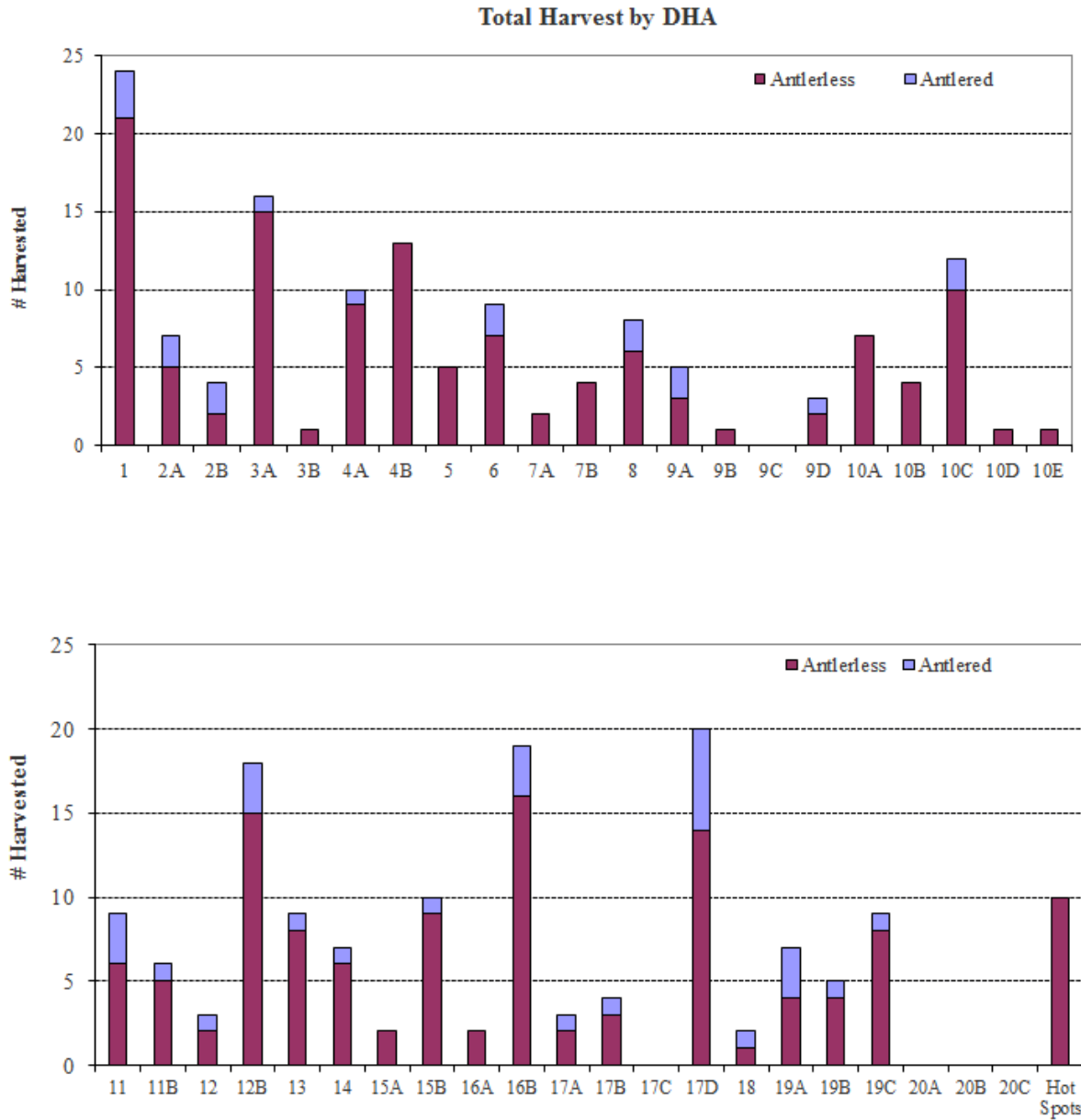


Figure 4. Number of deer harvested by deer type (Antlerless or Antlered) within each of the 42 designated hunting areas (DHAs) within the City of Duluth during the 2016 bowhunt.

Table 3. Harvest within Hot Spots during the 2016 Duluth City Bowhunt. Harvest within Hot Spots is limited to antlerless only.

Description	No. Antlerless Harvested
Glenwood	1
Grand ave west	1
Lakeside	2
Munger Trail Hotspot	1
Wabasha	4
Zamzow/Hartley	1
TOTAL	10

However, when we look at the most successful hunters, i.e. those harvesting more than four deer, we see a consistent decline in these hunters (all three lines in Figure 16). As hunters drop out of these categories, they naturally fall into the 00 and 10 categories, which explains the increase observed in Figure 15. This observed decline in hunter success corroborates other data observed from this hunt.

Hunter selectivity is very difficult to model and assess. It's safe to assume that hunters will harvest the first antlerless for which they have a safe and ethical opportunity, especially given the low numbers of shot opportunities. After the first antlerless has been harvested, it's difficult to know what hunter selectivity patterns truly are. Some hunters intentionally pass on fawns, as the time spent processing a deer is not worth the small amount of meat. Others go out of their way to harvest fawns, as they feel the higher quality meat is worth the lower quantity. Assuming that hunter selectivity has not changed from one year to the next, we can evaluate the harvest to see if winters or hunter success in the past are likely the causes for the declining hunter success and harvest totals observed in 2016. The antlered portion of the harvest for each season was removed from the antlerless portion. Fawns were combined into one category separate from adult females in another. There's little, if any, change over time in the percentages of each deer type (Figure 17). This suggests that the winters may not have as much of an influence on the declining deer harvest in Duluth as have the registered bowhunters.

At the end of the season, our hunters are asked to provide input in a Year End Survey. One of the questions in this survey was to ask returning hunters about their observations on deer densities in the woods. This is anecdotal information only, but trends become apparent with a few years' worth of observational data. Survey participants were asked to rate deer observations relative to previous years in the Duluth Hunt, on a scale from 1 to 7, with 1 being "a lot fewer deer observed" to 7 being "I saw a whole lot more deer relative to previous seasons". 4 meant "no change in Deer Numbers Observed". Figure 18 presents the data for antlerless, antlered, and total deer observations. Of the 148 returning hunters that responded, mean observational scores for the 2016 season were 2.3 ± 0.2 deer observed, indicating that hunters reported seeing a lot fewer deer this season relative to previous ones. Hunters reported seeing more antlered males (2.7 ± 0.3) relative to antlerless deer (2.3 ± 0.2), though this



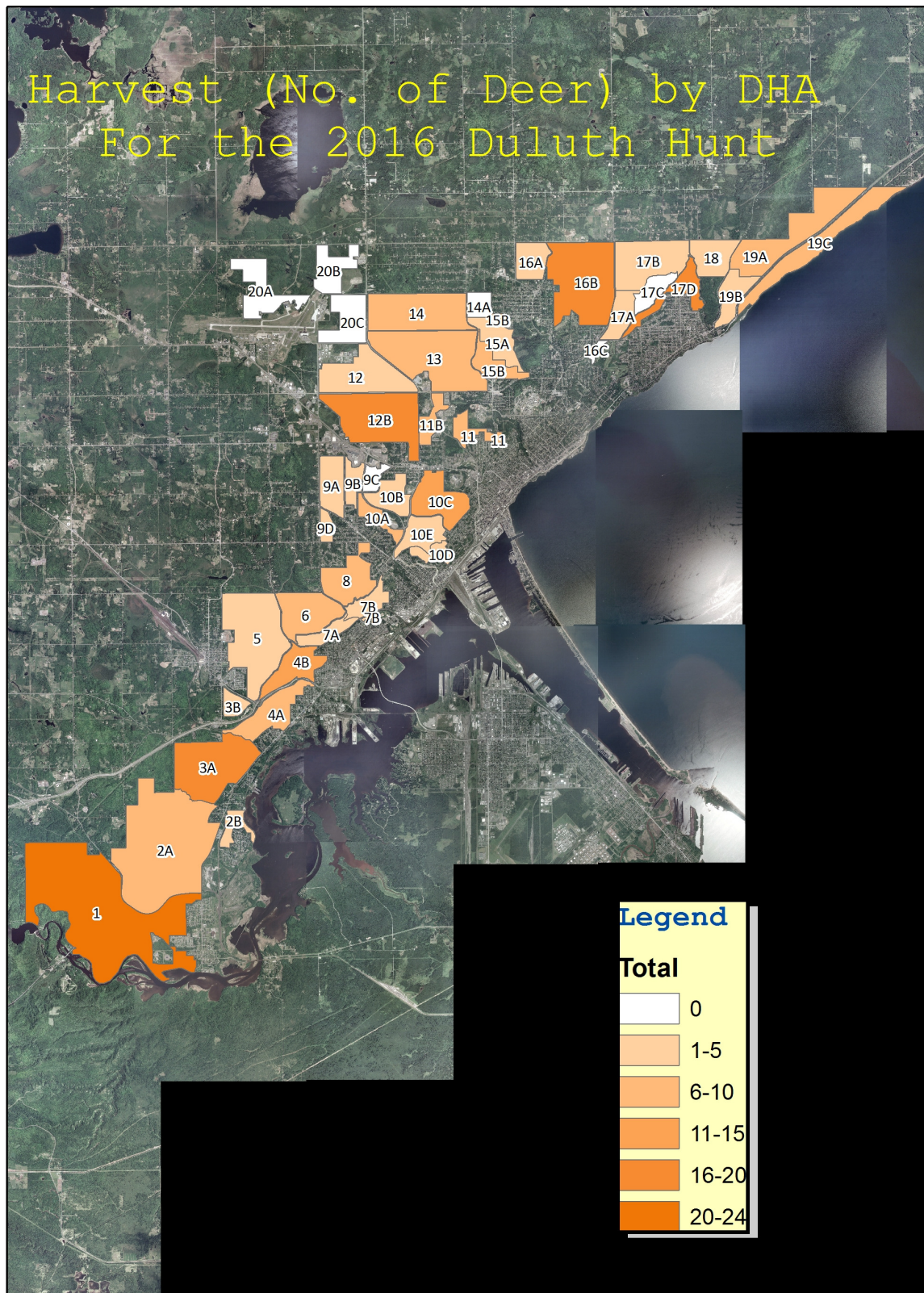


Figure 5. Map of the City of Duluth, along with harvest (number of deer) within each of the 44 Designated Hunting Areas during the 2016 Duluth City Bowhunt. DHAs are labelled on the map. The color of the DHA indicates the number of deer harvested as identified in the legend at the right.



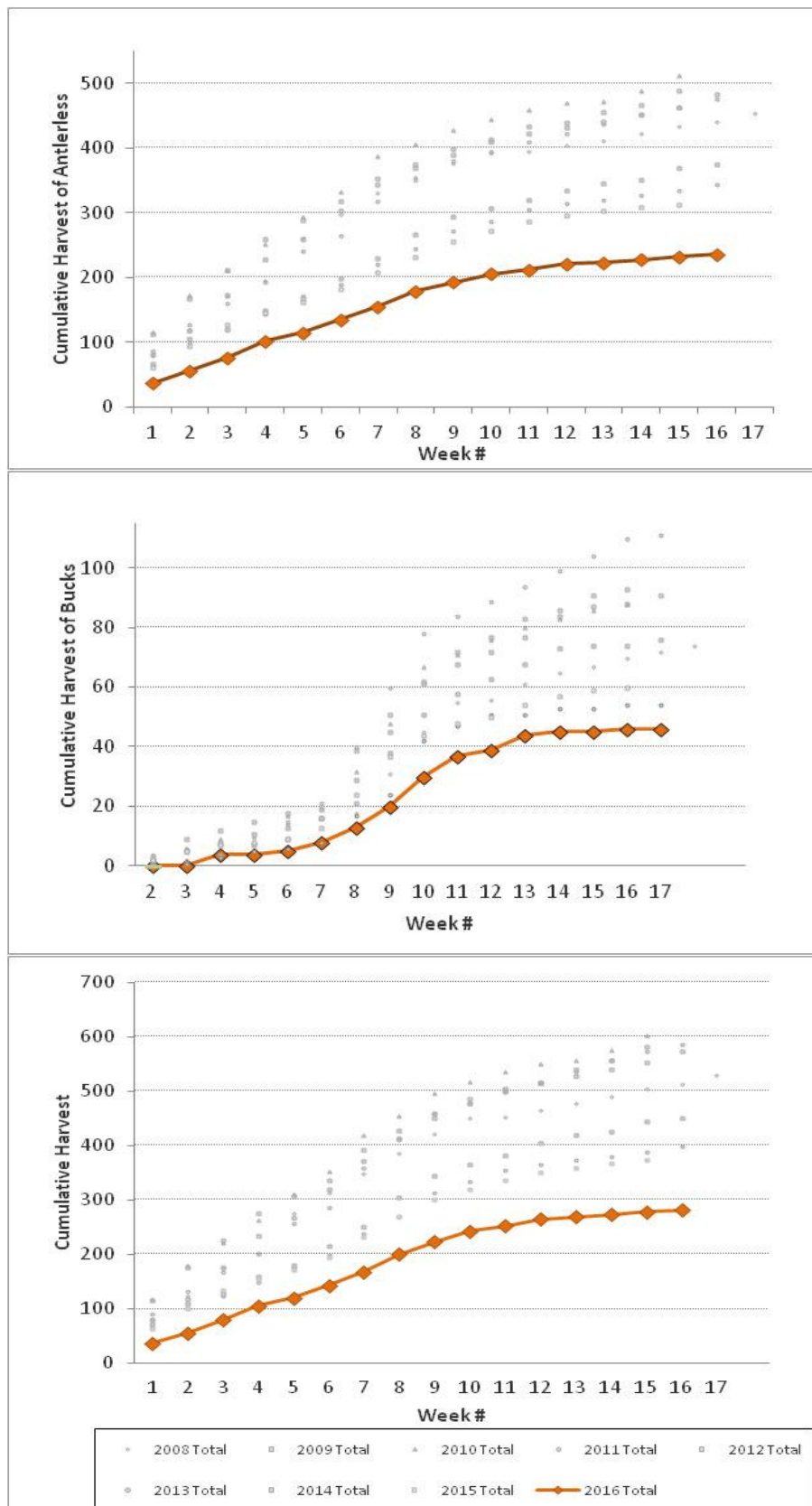


Figure 6. Harvest throughout the season, by week number, for the 2016 Duluth City Bowhunt (orange lines). Top panel shows harvest of antlerless deer; middle panel shows harvest for antlered males; bottom panel is total harvest by week. Weeks are measured Saturday thru Friday, starting on 19 September 2016 thru the end of the season on 31 December 2016. Other seasons are shown for comparison using non-colored markers.



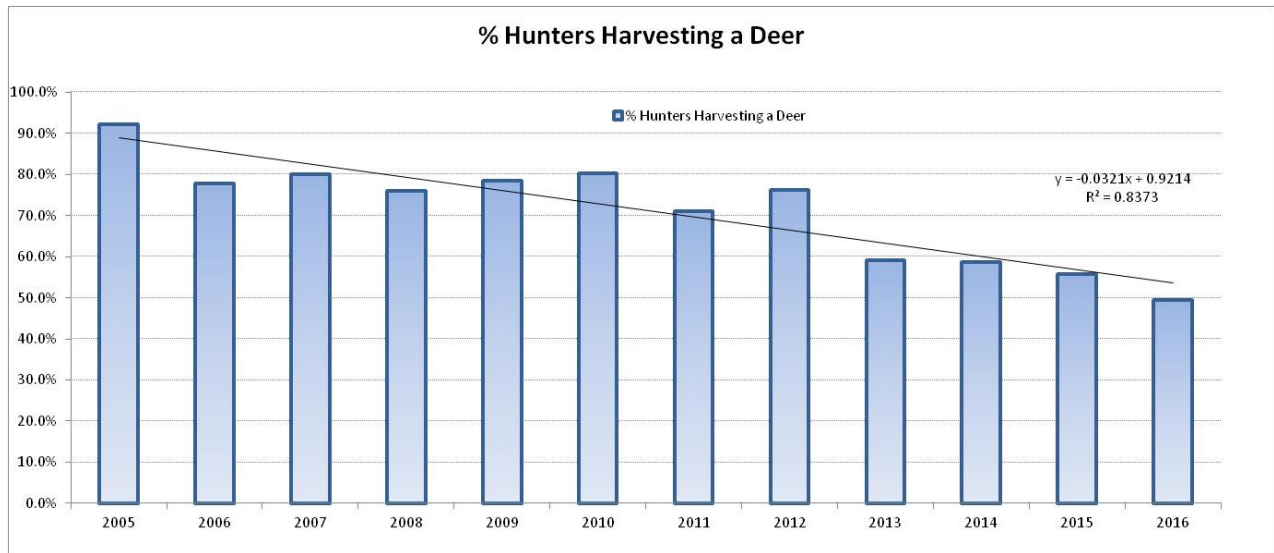


Figure 7. Percentage of hunters harvesting deer while participating in the Duluth City Bowhunt. 2016 was the lowest percentage of successful hunters observed. Regression line is shown.

was not significantly different. Figure 19 presents 2016 data and previous seasons' observations. Note that over time, the distribution shifts from more to less deer observed, indicating that fewer and fewer deer are being observed by our participating hunters from one season to the next. No significant differences in observation data were observed from one year to the next, e.g. 2015 to 2016 ($P > 0.05$), or from 2014 to 2015 ($P > 0.05$). While the shift in observational data is definitely to the left, this suggests that deer densities may be declining gradually over time. Significant differences were observed when comparing means over a longer time frame, e.g. from 2011 to 2016 ($t = -4.4008$, $P < 0.0001$).

Overall, the deer harvested / mile² is the lowest observed (Figures 10 & 11). Total harvest / hunter and antlerless harvest / hunter are also at all-time lows (Figure 13). Deer observations continue a downward trend observed since the ABA began collecting this data in 2011 (Figure 19). Hunters, politicians, and landowners need to begin adjusting expectations and redefine the definition of "success" for this urban hunt. In 2005, "success" was defined by the hunters as "punching all five tags". Politicians and landowners defined "success" as a harvest of 500 or more deer during those early seasons. Politicians sought to increase hunter participation and recruitment from one year to the next in order to increase harvest and their definition of "success". The ABA believes that those days are past, as we now have a new deer herd sustained at levels far lower than those observed prior to the start of this hunt in 2005.

"Success" needs to be redefined as we move from the phase of depressing the deer herd to one of sustaining it at this low level. Bowhunters have never been successful at total deer herd removal in any urban hunt within the United States. Reduction is possible, and Duluth hunters have demonstrated this. But bowhunters will never completely eliminate white-tailed deer from the landscape. Further, Duluth residents do not largely support a complete elimination of the deer herd. A new definition for success should be the continued opportunity for our bowhunters to participate in a sport that is a passion to many, in our own backyard. Continuing this opportunity provides services to our community by keeping the herd at current levels, one seemingly accepted by gardeners, homeowners, and those that drive vehicles and have to dodge darting deer during the autumn months.



Eliminating this opportunity will no doubt increase the deer herd back to 2005 population levels in a few short years, a level completely unacceptable by the residents, insurance companies, and the Duluth Police Department.

It is important to note that even though our hunters are largely not satisfied with the success rates in recent seasons, it is still significantly higher than the MN Statewide archery success rate of 18.7% (C. Balzer, MN DNR, personal communication). This statistic is for successful hunters throughout the State, and is comparable to a success rate in the 2016 Duluth Hunt of 49.7% (Table 1). Clearly, when compared to the past success rates in the city hunt, the success rate is down, but it is still pretty good when compared to the statewide average. Our hunters can be expected to harvest at least one deer every 2.0 years (ABA Data), as opposed to the statewide average of hunters harvesting 1 deer every 5.4 years (C. Balzer, MNDNR, personal communication). There are several hypotheses that may explain this difference in success rates, even given a real or perceived lack of deer in the woods. Duluth hunters jump thru a lot of hoops to get into this Hunt, and thus are likely to invest more time in the woods. Plus, it is very convenient to hunt in your back yard or after work to jump into a stand three blocks away. It is much less so to run up to deer shacks 30 miles out of town, or to leave the city after work and still have the daylight time to get in an evening sit. Without this opportunity, many of our hunters would likely spend much less time in the woods, and their hunting success would reflect that lack of effort.

In addition, there's hunter selectivity that can't be modeled between the City's opportunities (unlimited antlerless) and that of the other Bowhunters within Minnesota. Most areas of MN limit hunters to a single deer. Due to the perceptions propagated by the modern deer hunting media community, a true hunter only shoots "trophy" bucks. Many hunters throughout the State hunt patiently for the "perfect" deer. Many shot opportunities are passed. These hunters may, or may not, end up punching their tag. This may be reflected in the low statewide success of 18.7%. Duluth City hunters are essentially required by the earn-a-buck regulation to take the first legitimate shot opportunity on any antlerless individual. This likely inflates our success rate much higher than it would be in the absence of unlimited tags and the earn-a-buck requirement. Our hunters' relatively high success may not be truly indicative of deer densities within the City, and probably shouldn't be compared to those outside of the City.

Perhaps it is time to reconsider what this hunt is all about. Deer reduction, while a major component of any urban hunt, is not the only benefit to the City and the participants. There's little argument that the reduction of the deer herd has been accomplished, very effectively. But the Hunt continues to provide a wonderful, and safe, recreational opportunity in our own backyards. In addition, many participants rely upon the "free range" meat that they can provide to their families. Continuing the Hunt has additional benefits to society in addition to keeping the deer herd at socially acceptable levels.

Bowhunters will need to adjust their expectations in the future. Gone are the days of seeing a dozen deer every evening in the woods. While this Hunt Program continues, these population levels will likely never be seen again. Hunters that don't have the time or patience to wait for just two or three harvest opportunities in a season are encouraged to hunt elsewhere. What the ABA and law enforcement can't tolerate are hunters taking matters into their own hands, and artificially increasing harvest opportunities at the expense of ethics and the law. Examples include baiting or creating illegal food plots on public lands. Another example is choosing to ignore the DHA boundaries and hunting illegally in areas not approved of by the Duluth City Council or the Duluth Police Department. While lower deer numbers and harvest opportunities are a hard reality for hunters that have been with this Program since inception, it's vital that participants consider the future of the Hunt Program and our continued acceptance by the Duluth residents before choosing to break the law. If these lower deer numbers are not acceptable to individual hunters, please pull out a State map and find other areas that may have higher deer densities than what is currently observed within Duluth.



For most readers, this will conclude the 2016 Annual Report by the ABA. On behalf of the Arrowhead Bowhunters Alliance, we thank all of those individuals that participated in the 2016 Duluth Bowhunt, and who made this another successful, albeit difficult, season. See you in the woods in 2017!

Section 3, beginning on page 20, will go into fine details of the 2016 Hunt, our hunters and their successes, and other such seemingly insignificant details that few, if any, will find interesting. For those brave souls that opt to continue, you may be tempted to interpret the statistics and graphs that follow as “*blah, blah, blah* . . .”. If you have a misbehaving child, make them continue reading until their behavior and attitude improves, or until they fall asleep from sheer boredom.

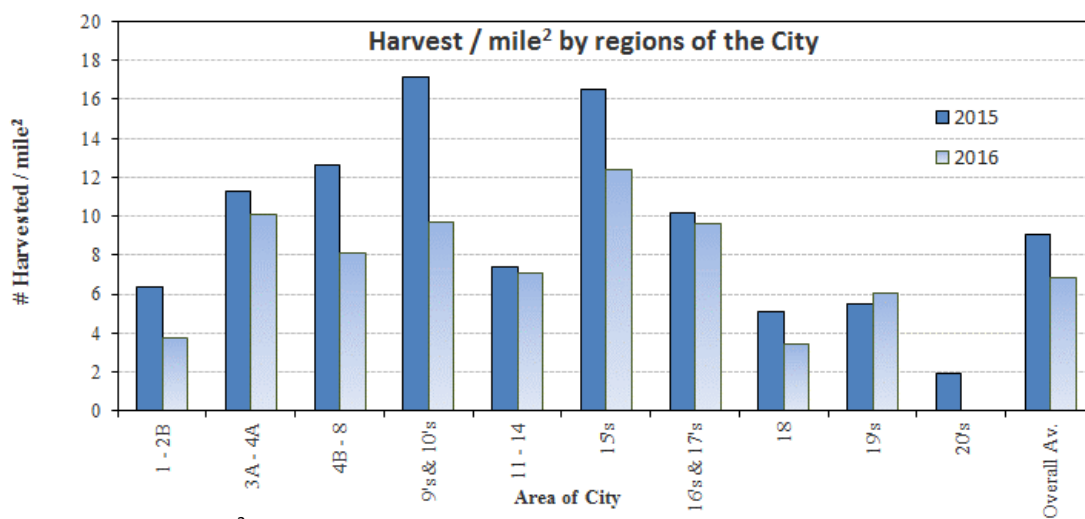


Figure 9. Harvest / mile² in various areas of the City of Duluth. Data presented is for both 2016 and for comparison, 2015.

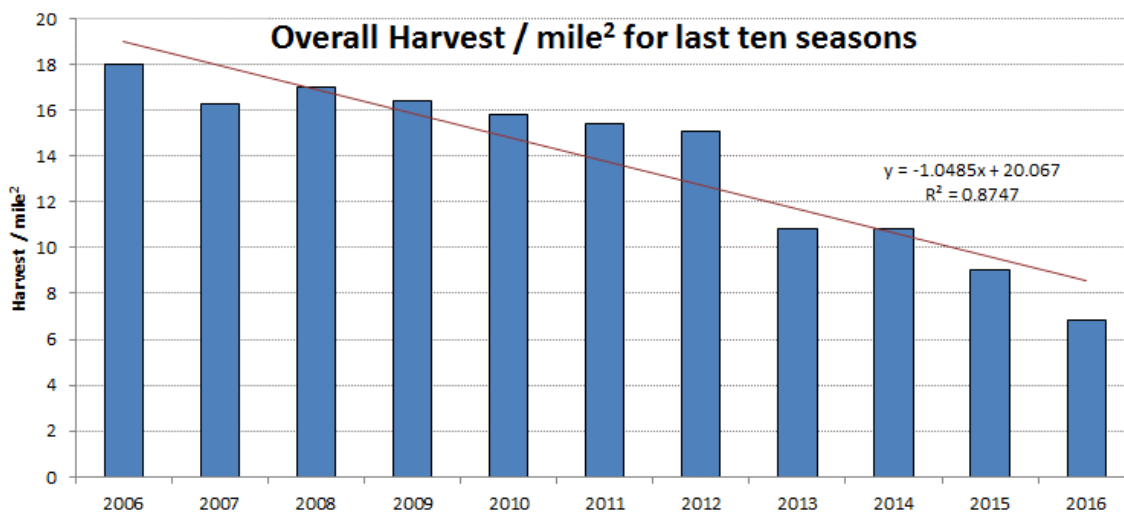


Figure 10. Harvest per mile² over a ten-year time period in the Duluth City Bowhunt. Harvest is not included for 2005, as the DHAs were redrawn and are not the same as during the first season. Regression line is shown.



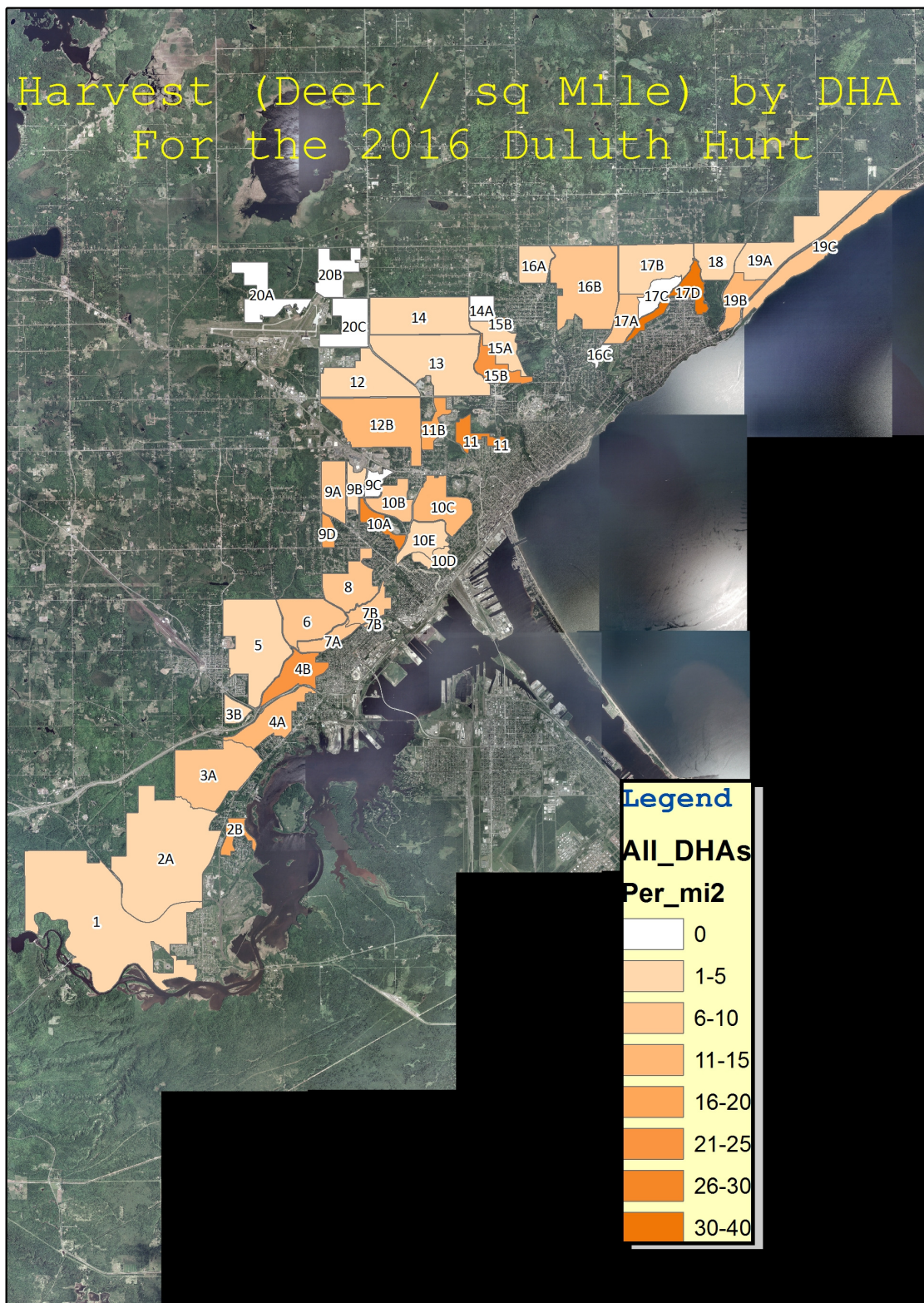


Figure 8. Map of the City of Duluth, along with harvest per mile² within each of the 44 Designated Hunting Areas during the 2016 Duluth City Bowhunt. DHAs are labelled on the map. The color of the DHA indicates the number of deer harvested per mile² as identified in the legend at the right.

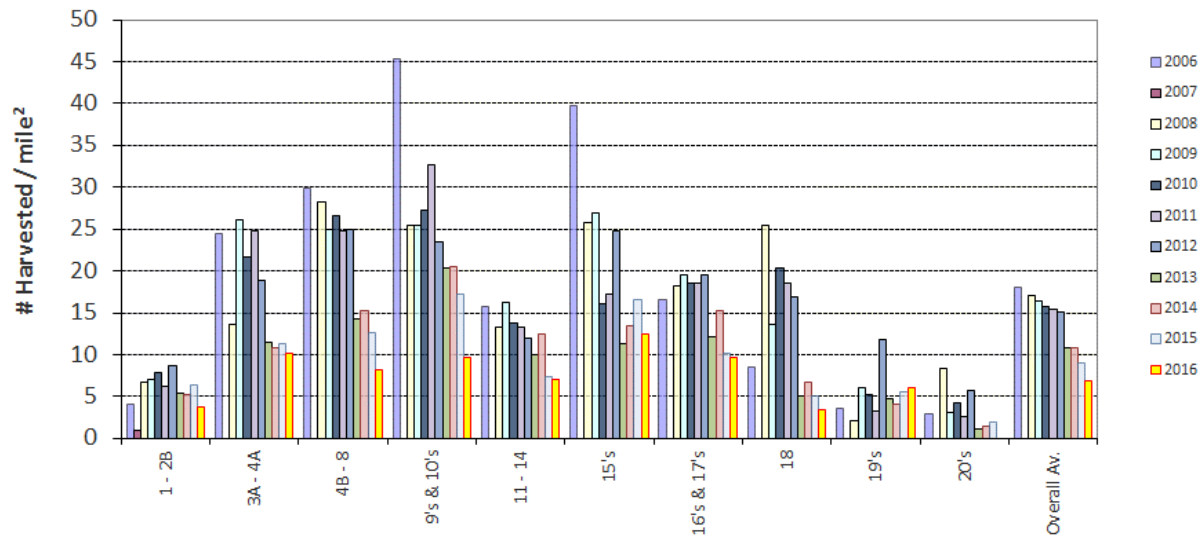


Figure 11. Harvest / mile² in sections of the city, identified as a range of Designated Hunting Areas (DHAs). The overall average presents the same data as in Figure 9.

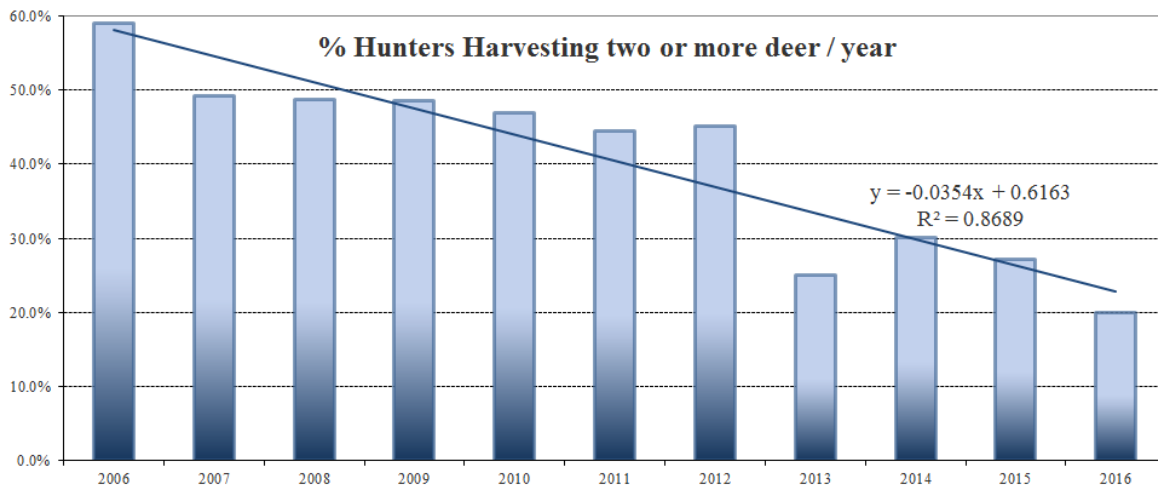


Figure 12. Percentage of hunters harvesting two or more deer per season while participating in the Duluth City Bowhunt. Regression line is shown.

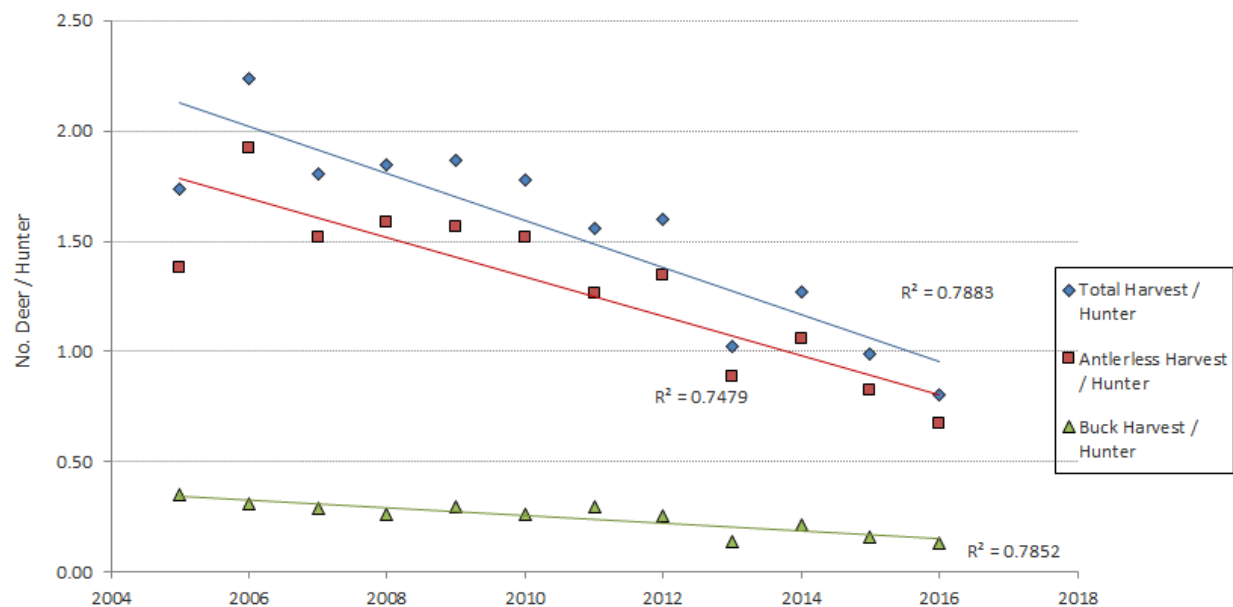


Figure 13. Harvest / hunter statistics for the twelve years of the Duluth City Bowhunt.

Table 4. Harvest / mile² in various areas (DHAs) of the City of Duluth, for the last twelve years where DHA boundaries have not changed.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1 - 2B	4.1	5.6	6.7	7.0	7.8	6.3	8.7	5.4	5.3	6.3	3.8
3A - 4A	24.4	18.4	13.6	26.0	21.6	24.8	18.8	11.5	10.9	11.2	10.1
4B - 8	29.8	28.2	28.2	25.0	26.6	24.7	25.0	14.3	15.2	12.6	8.1
9's & 10's	45.4	33.6	25.4	25.4	27.2	32.7	23.5	20.3	20.6	17.2	9.7
11 - 14	15.7	15.8	13.3	16.3	13.8	13.3	11.9	10.0	12.4	7.4	7.1
15's	39.7	20.4	25.8	26.9	16.1	17.2	24.7	11.4	13.4	16.5	12.4
16's & 17's	16.5	18.2	18.2	19.6	18.6	18.6	19.6	12.2	15.2	10.2	9.6
18	8.5	15.2	25.4	13.5	20.3	18.6	16.9	5.1	6.8	5.1	3.4
19's	3.6	5.7	2.0	6.1	5.3	3.3	11.8	4.7	4.0	5.5	6.0
20's	3.0	5.8	8.4	3.1	4.2	2.6	5.8	1.0	1.5	2.0	0
Overall Av.	18.0	16.3	17.0	16.4	15.8	15.4	15.1	10.8	10.8	9.0	6.9

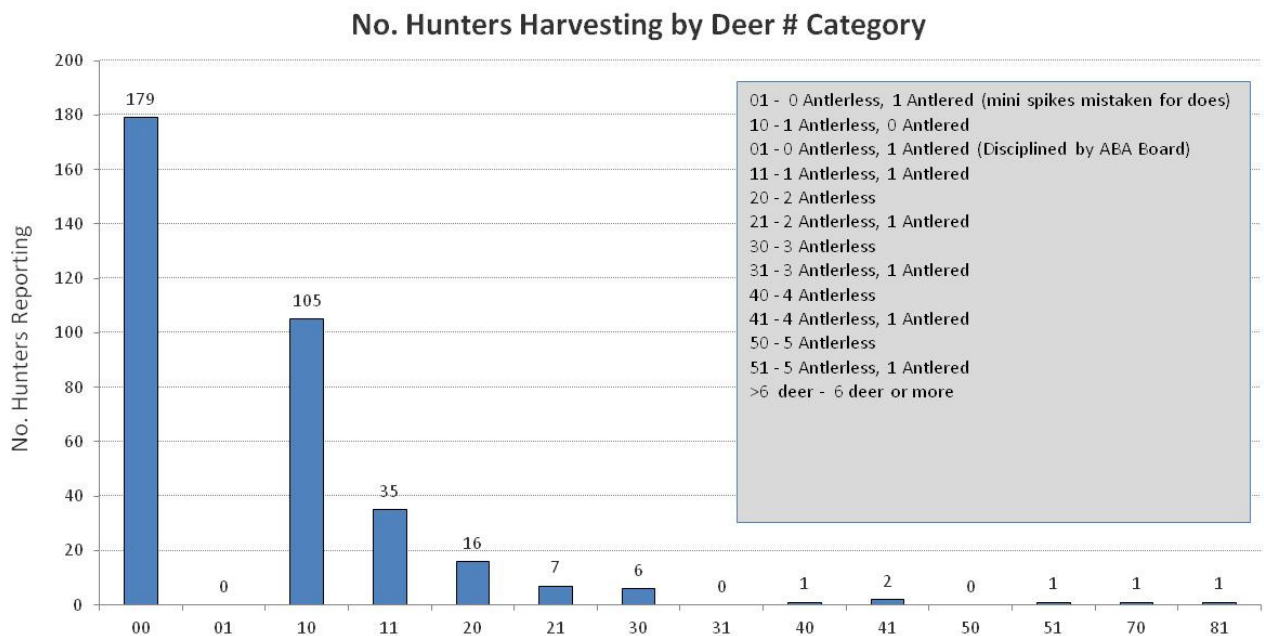


Figure 14. The number of Duluth City bowhunters by harvest category for the 2016 Duluth City Bowhunt.

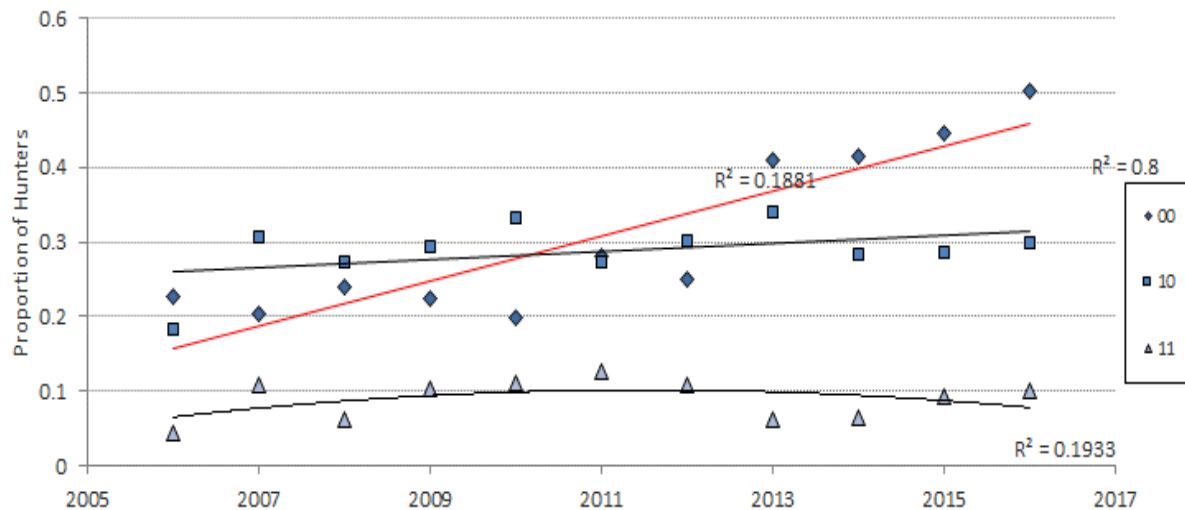


Figure 15. Hunter category for hunters in the Duluth City Bowhunt, for seasons 2006 – 2016. Data presented here are for hunters harvesting zero deer (00), one antlerless (10), and one antlerless and one antlered male (11).

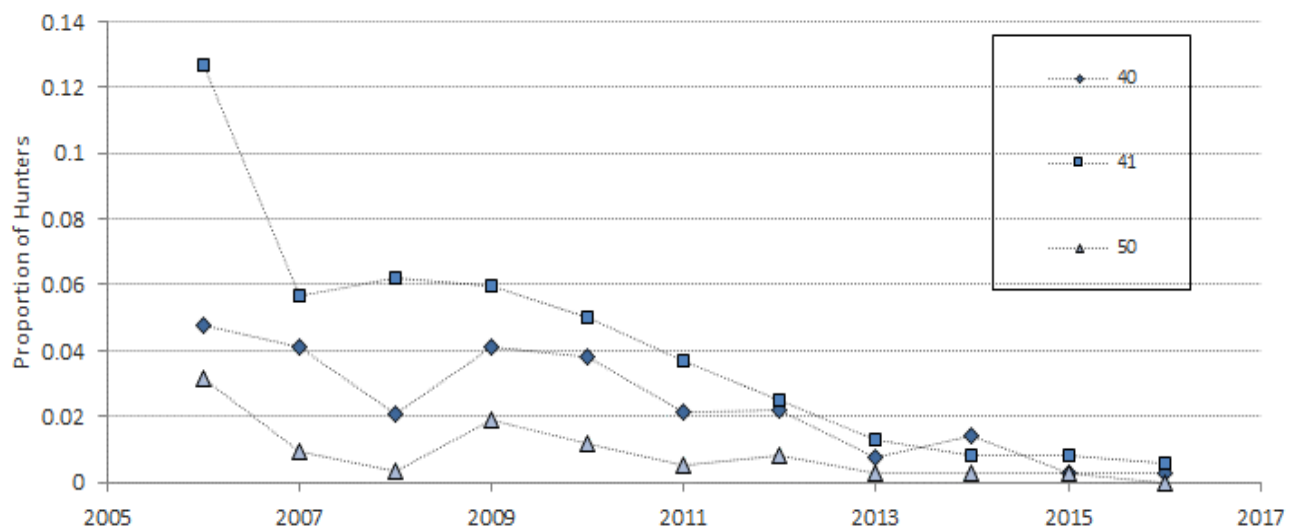


Figure 16. Hunter category for hunters in the Duluth City Bowhunt, for seasons 2006 – 2016. Data presented here are for hunters harvesting four antlerless (40), four antlerless and one antlered individual (41), and five antlerless (50).

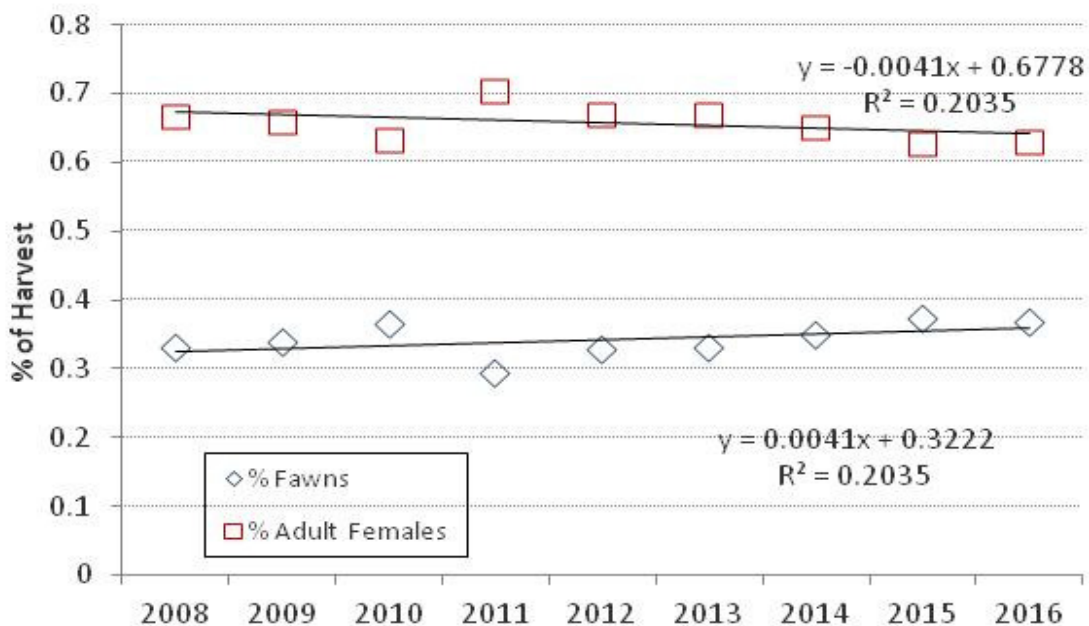


Figure 17. The percentage of antlerless harvest in the Duluth Bowhunt, from 2008 thru 2016.

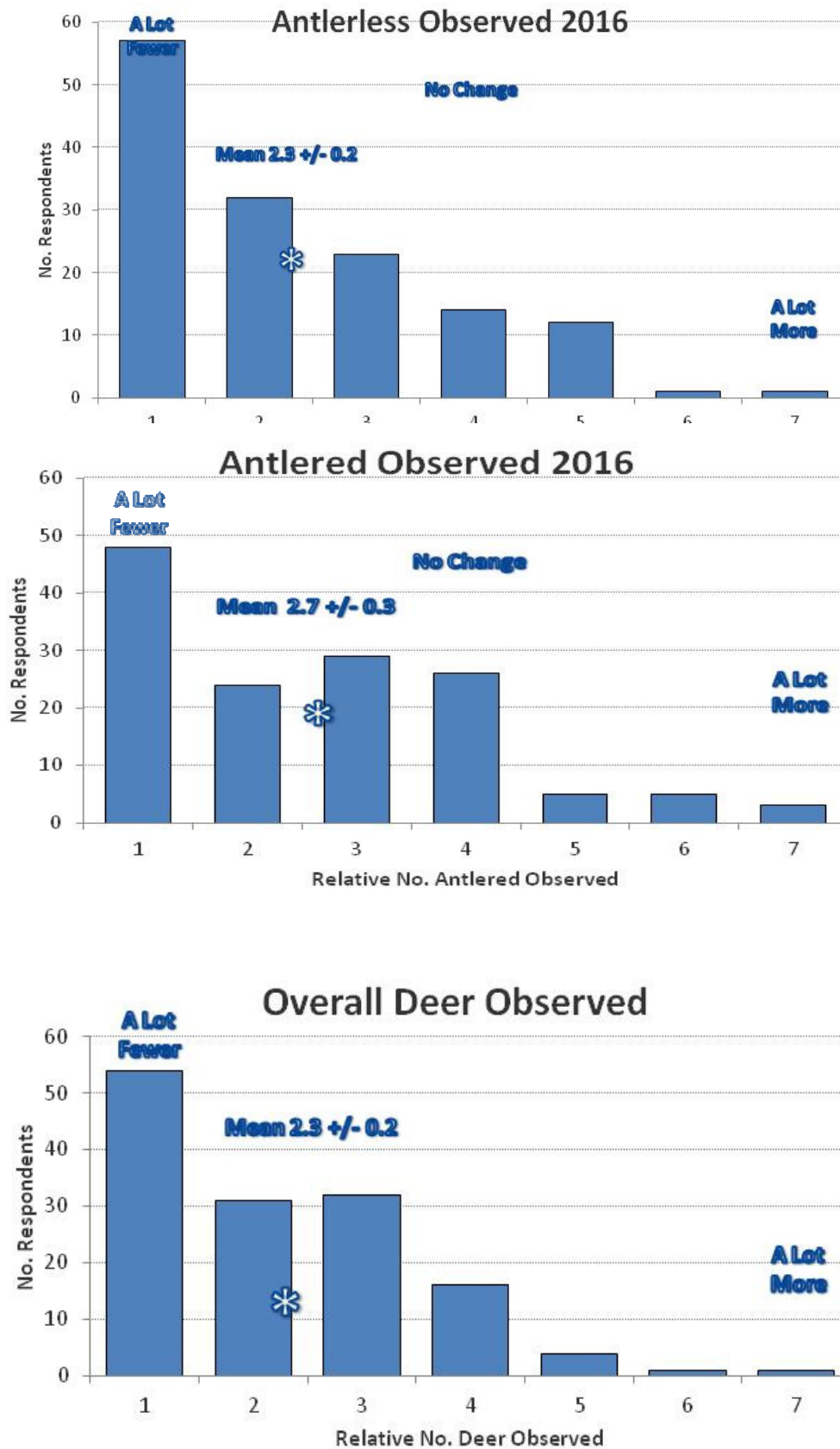


Figure 18. Relative number of deer observed by returning hunters in the 2016 Duluth Bowhunt.

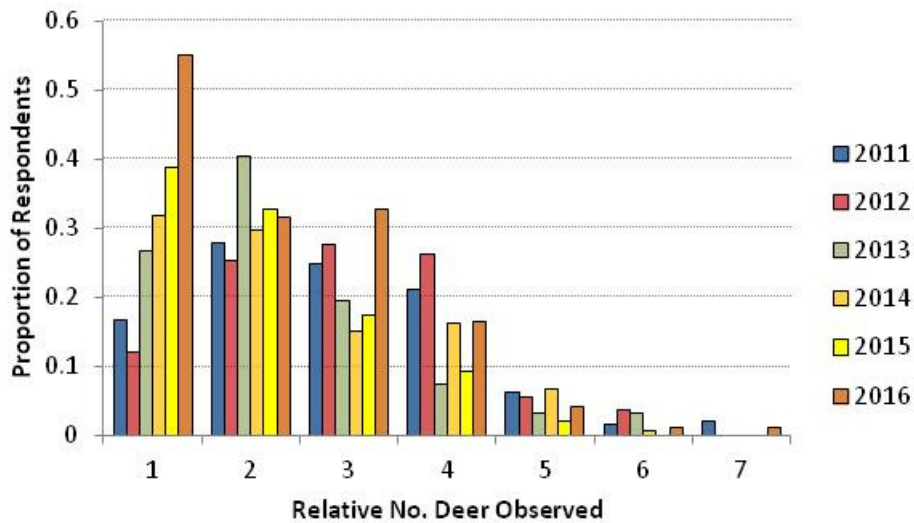
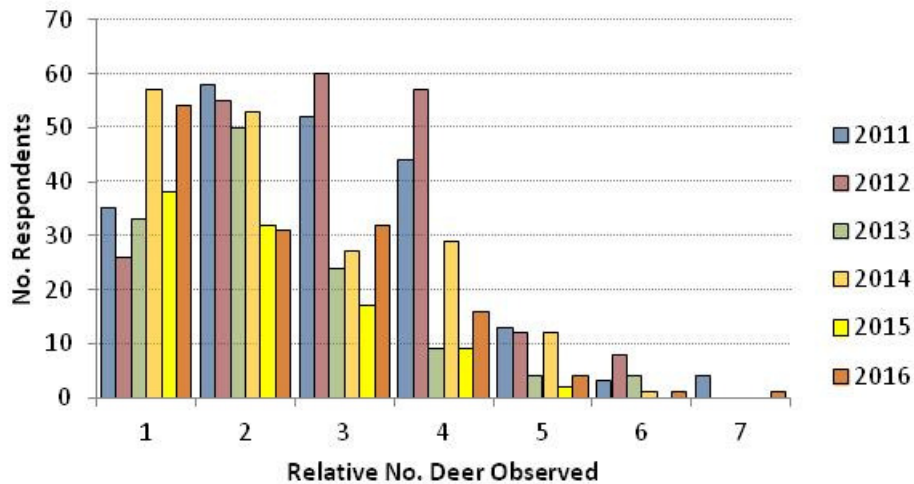


Figure 19. Relative number of deer observed by returning hunters during the past five seasons of the Duluth City Bowhunt. The top panel is raw data, the number of hunters that filled out the Year End Survey and answered the questions. The bottom panel presents the percentage of hunters in each observational category, standardized by the number of respondents.

Section 3: General Hunt details for the 2016 season

Many hunters will recognize Figure 20. It's been used in most of the Hunt summaries. If you appreciate the humor, you will probably find the following Section interesting. If you view figure 20 as moronic, now's a great time to put this report away, grab the ice-rod and your children, and head out for a much better use of your time.

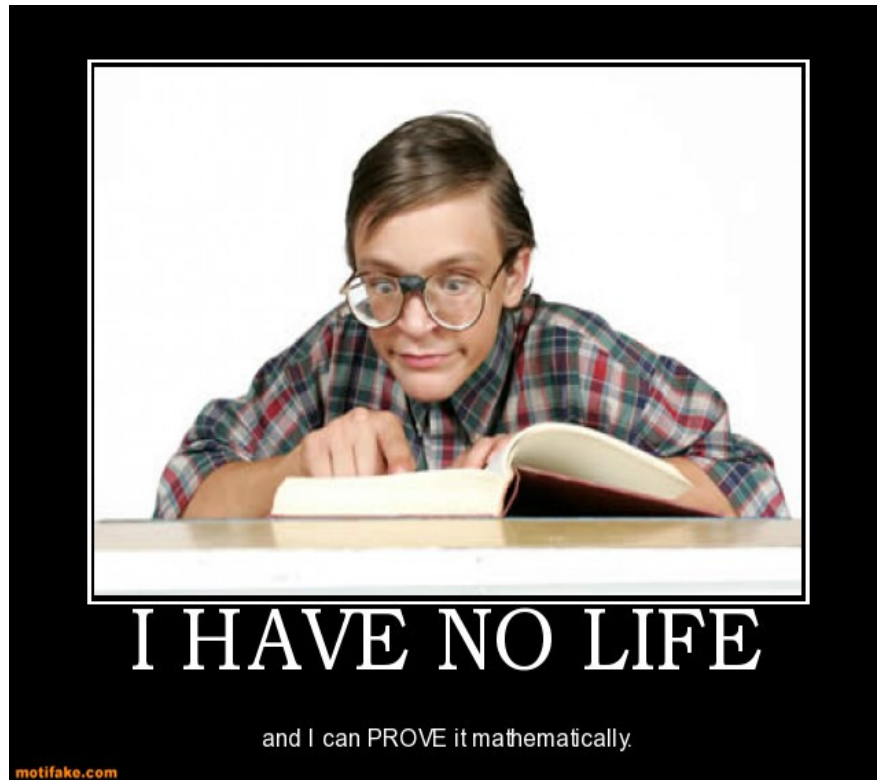


Figure 20. Needs no caption. Self-explanatory for those who know Bork.

Private Lands

The Duluth City Council has opened up private lands within the DHAs to our bowhunters. The Council could have limited hunting solely to public lands owned by the City. But to increase harvest, hunters can access any private property, with permission, within any of the DHAs. Our hunters once again took advantage of this opportunity in 2016. Harvest from private lands accounted for 44% of the 2016 harvest (Figure 21). A general misconception among some of the hunters, especially new ones, is that one needs access to private land in order to harvest deer, and specifically antlered males. Figure 22 breaks down harvest on public and private lands by deer type, and demonstrates that deer are still found on the public tracts of land within the City. However, it also demonstrates the importance of continued public support for this hunt, and forging positive relationships with Duluth landowners who continue to allow bowhunters to participate in this sport on their property.

Public vs. Private Land Harvest
Total No. Deer

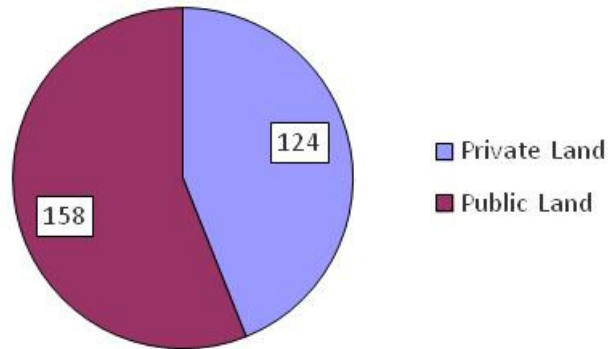


Figure 21. Harvest on public and private lands within the designated hunting areas during the 2016 Duluth City Bowhunt.

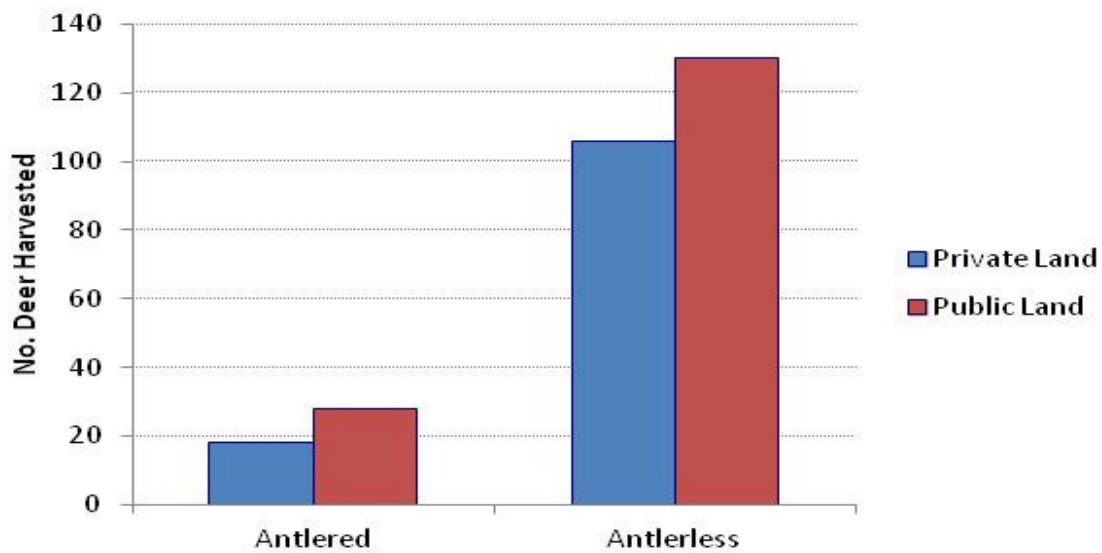


Figure 22. Harvest by deer type on public and private lands within the designated hunting areas during the 2016 Duluth City Bowhunt.

Not all of the DHAs are created equally, in terms of the portion of public and private lands within the boundaries of each DHA. Figure 23 breaks down harvest within the various DHAs by public and private. Clearly DHAs such as DHAs 1, 2A, 2B, 3A, 19A, and 19B are dominated by City-owned public lands, whereas 12B, 15B 16B, 13, for example, have many more opportunities available on private lands.

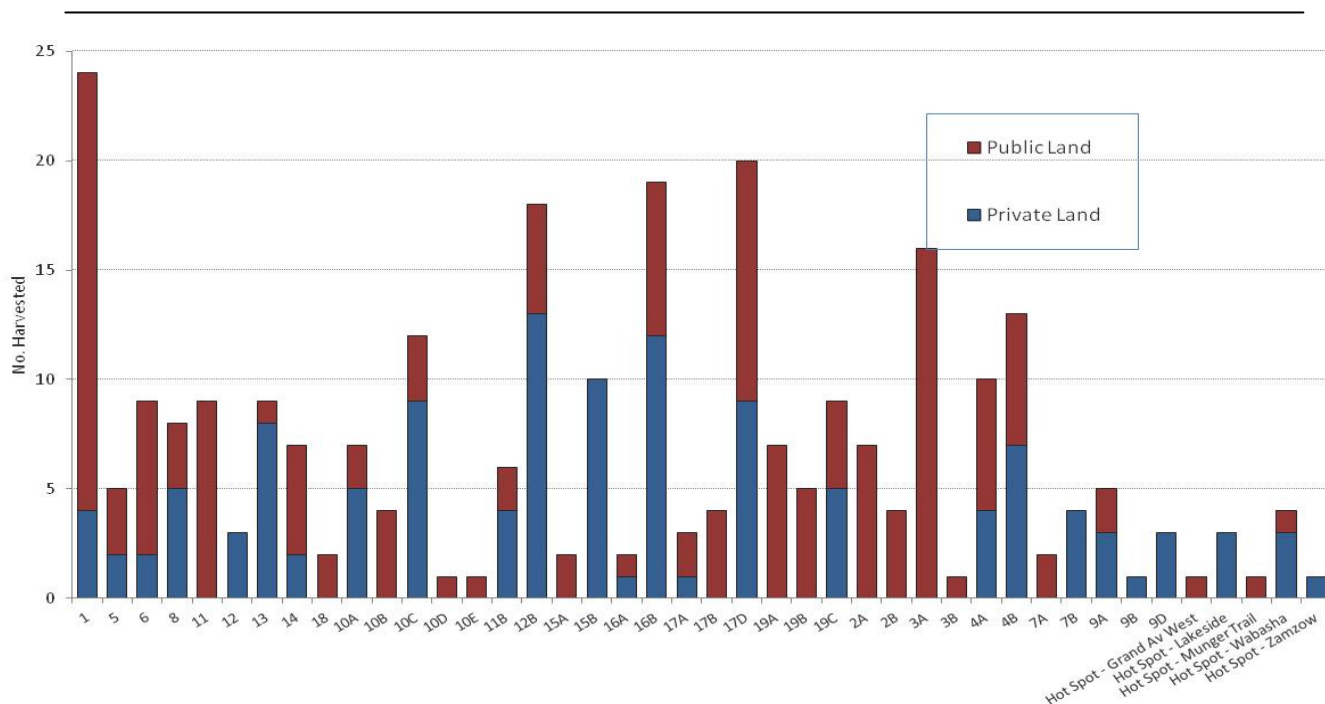


Figure 23. Harvest by Designated Hunting Area on public and private lands during the 2016 Duluth City Bowhunt.

Ground Blinds:

During the first years of the Duluth Hunt, the rules specified that hunters could ONLY hunt from elevated stands. Hunters requested the use of ground blinds to further open up areas within DHAs. The City Council approved, and ground blinds have been allowed by permission only from both the ABA and the respective DHA Hunt Coordinator. Figure 24 shows the results of ground blind use in 2016. Harvest was minimal from ground blinds, with only 14 harvested, barely a significant amount (4.9%). However, once again, there were no incidents involving Duluth participants or any accidents resulting from the use of ground blinds. The ABA will continue to advocate for the use of ground blinds as a reasonable opportunity within areas of the City where tree stand setups are simply not feasible.

Tree Stands vs. Ground Blinds Total No. Deer

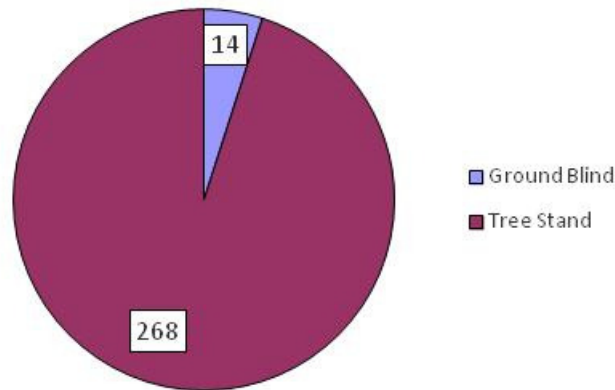


Figure 24. Number of deer harvested from ground blinds and tree stands during the 2016 Duluth City Bowhunt.

Hearts and Livers:

Again in 2016, Duluth hunters were asked to save hearts and livers from their harvested white-tailed deer. Hearts are used by the University of Minnesota – Duluth Medical School for dissection and anatomy. Medical School personnel approached the ABA many years ago, requesting hearts for their future surgeons to learn fine and intricate heart anatomy. Fresh hearts have much finer detail, in terms of arteries and capillaries, than do formalin-preserved ones. Hearts were collected on 8 November, when the harvest had reached 200 deer. Only 35% of our hunters opted to participate in this opportunity to give back to the community (Figure 25).

A researcher associated with UMD requested livers from harvested deer for the third consecutive year. This individual is examining the occurrence of liver flukes in various white-tailed deer populations. Duluth was included in the study for the opportunity to receive many more samples at little to no cost. Figure 26 shows that Duluth hunters were largely cooperative, and provided many samples for this researcher.

Hunter participation in these two programs was in the 35% - 60% range (Figures 25 & 26). This is a wonderful opportunity for hunters to participate in cutting-edge research as well as give back to the community that has opened up their backyard for our bowhunting recreation. The ABA Board struggles with how to make this program relevant to our hunters, and to encourage continued / further participation. Results from the 2016 Year End Hunter Survey (*Details in Section 4, page 32*) suggest that this Program is still important to our hunters (Figure 27). The ABA will likely commit once again to UMD to collect these. Please understand that the ABA is immensely grateful to those hunters that went out of their way to collect, store, and ultimately deliver these hearts and livers. The ABA would encourage others to participate in 2017, especially given that harvest is likely to continue to decline, meaning there will be fewer hearts available to collect. Every heart will be important in 2017!



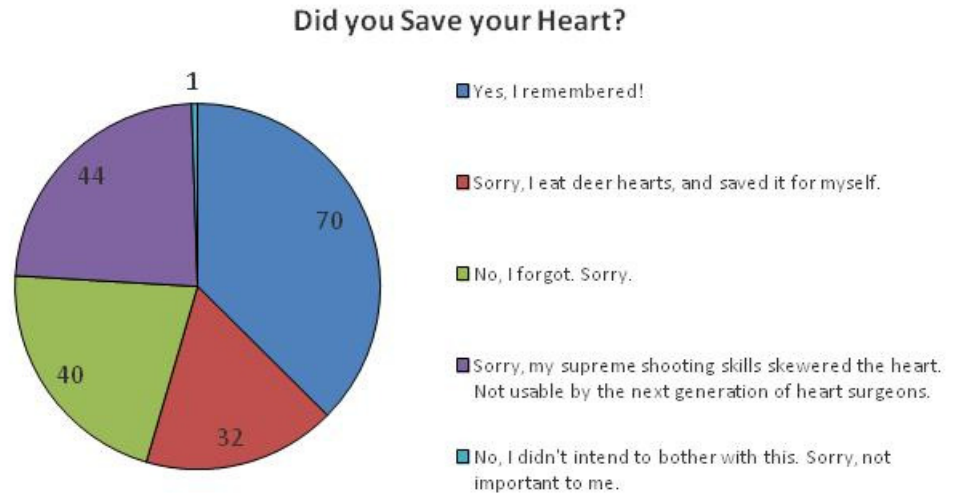


Figure 25. Responses from hunters asked to save deer hearts for the UMD-Medical School during the 2016 Duluth City Bowhunt.

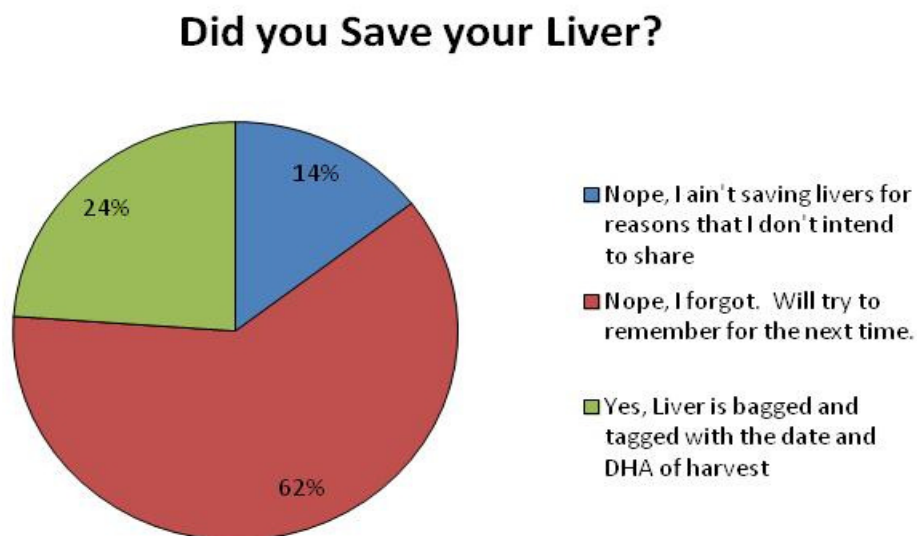


Figure 26. Responses from hunters asked to save deer livers for the UMD liver fluke study during the 2016 Duluth City Bowhunt.

Will You Save a Heart for UMD in 2017?

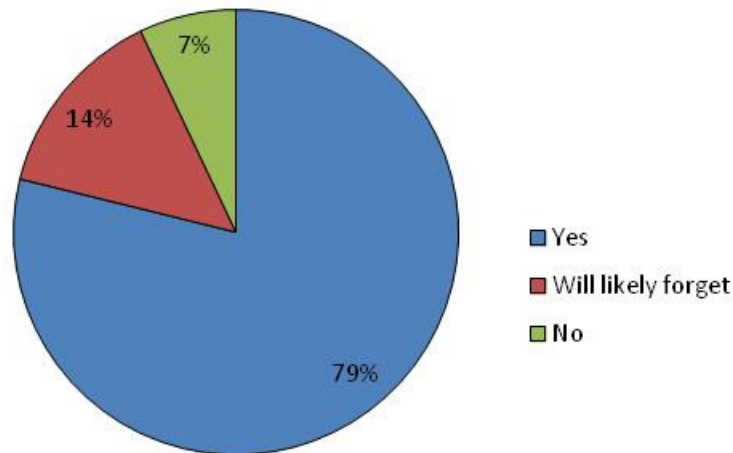


Figure 27. Results from the Year End Hunter Survey when asked whether a hunter would be willing to save a heart for the UMD Medical School in 2017.

Hunter Demographics, Locals vs Non-Local Hunters:

So, who participated in the 2016 Duluth City Bowhunt? Local hunters, defined as those living within 30 miles of Duluth (e.g. Cloquet, Hermantown, Saginaw, and Carlton) were obviously the majority (84.1%, Table 5). Local hunters accounted for 86.0% of the antlerless harvest, and 91.3% of the antlered harvest, suggesting that local hunters had more opportunity and harvested deer in a higher percentage than their representation in the hunter pool. Duluth residents made up 67.3% of the hunting population, and were responsible for 63.6% of antlerless and 71.2% of antlered harvest, in line with their participation rates. Out-of-State hunters made up only 5.7% of the 2016 hunter population (Table 5). When standardized by participation rates, we see that local hunters, which include Duluth residents, harvested deer at a higher rate than their rate of participation, as evidenced by proportion of harvest levels greater than 1.0 (Figure 28). All other hunter groups failed to harvest deer in proportion to their participation rates (Figure 28).

The ABA and the City of Duluth routinely receive complaints that out-of-state and non-local hunters are in this hunt solely for the chance to harvest a trophy buck, and then move on. Local hunters harvested 0.83 ± 0.13 total deer per hunter (0.68 ± 0.11 antlerless deer / hunter). Non-locals and out-of-State hunters harvested 0.66 ± 0.22 total deer per hunter (0.59 ± 0.19 antlerless deer / hunter). These differences were not significant for both total deer harvested ($t = 1.28$, $P = 0.10$) and for antlerless deer harvested ($t = 0.85$, $P = 0.198$). Out-of-state hunters have to pay much higher fees for MN hunting licenses and tags, and may not be willing to purchase multiple antlerless bonus tags. Our data suggests that this is not necessarily the case. Time constraints and travel make it improbable that the average non-local or out-of-state hunter would be able to invest the time and effort required to harvest at the same rate as local hunters, especially when the deer herd is at the low end of what has been observed over the last decade. Local hunters appear to have the advantage when it comes to harvest opportunity.



Table 5. Breakdown of hunter demographics for hunters participating in the 2016 Duluth City Bowhunt. Locals are hunters living within 30 miles of Duluth. Duluth residents are a subset of “locals”, and are Duluth residents. Non-locals are hunters residing within the State of Minnesota outside of the 30-mile radius. Out-of-state hunters in 2016 were all individuals living in Wisconsin. The number and percentage of antlerless and antlered harvest is reported by hunter residency.

	# Hunters Participating (%)	# Antlerless Harvested (%)	# Antlered Harvested (%)
Locals	296 (84.1%)	203 (86.0%)	42 (91.3%)
Duluth Residents	237 (67.3%)	150 (63.6%)	33 (71.2%)
Non-Locals	36 (10.2%)	23 (9.7%)	3 (6.5%)
Out-of-State	20 (5.7%)	10 (4.2%)	1 (2.1%)
TOTAL	352	236	46

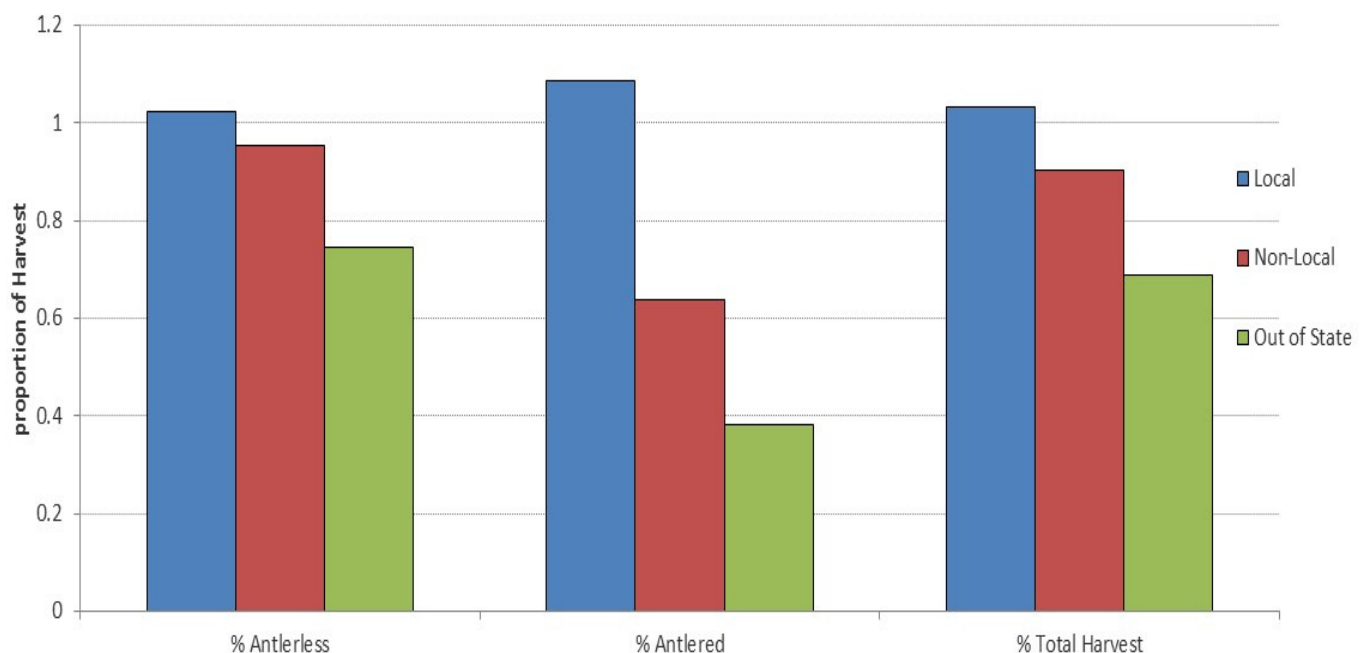


Figure 28. Harvest rates standardized by participation for hunters residing within 30 miles of Duluth (Locals), Minnesota residents outside of the Duluth area (non-locals), and out-of-state hunters for the 2016 Duluth City Bowhunt.

Hunter Demographics, New vs Returning Hunters:

In 2016, the ABA placed 54 new hunters and 298 returning hunters from the 2015 hunt (Table 6). Returning hunters accounted for a much higher percentage of the harvest than did new hunters, when standardized by the number participating (Figure 29). Returning hunters harvested 0.88 ± 0.13 total deer per hunter, significantly different than the new hunters total harvest of 0.39 ± 0.20 ($t = -4.042$, $P < 0.0001$). Returning hunters harvested 0.73 ± 0.11 antlerless deer per hunter, significantly higher than the new hunters' antlerless harvest of 0.31 ± 0.16 ($t = -4.32$, $P < 0.0001$).

Several hypotheses have been offered to explain these observed differences between new and returning hunters. Certainly there's the "home field advantage" where many returning hunters may already know where they will be hunting even before placement at Lottery Night. And certainly there's a learning curve, where returning hunters have experience and knowledge of deer movements within the various DHAs that new hunters do not. Returning hunters likely already have private land lined up from past seasons. Even though new hunters appear to be at a disadvantage, the ABA Board continues to be impressed each season at the new recruits, and the energy and enthusiasm that they demonstrate to the goals of this management hunt.

Table 6. Breakdown of hunter demographics by returning status that participated in the 2016 Duluth City Bowhunt. New hunters are defined as those that did not participate in the 2015 Duluth City Bowhunt. Returning hunters were registered in 2015. The number and percentage of antlerless and antlered harvest is reported by hunter status.

	# Participating	Antlerless (%)	Antlered (%)	Total Harvest (%)
New	54 (15.3%)	17 (7.2%)	4 (8.7%)	21 (7.4%)
Returning	298 (84.7%)	219 (92.8%)	42 (91.3%)	261 (92.6%)
TOTAL	352	236	46	282

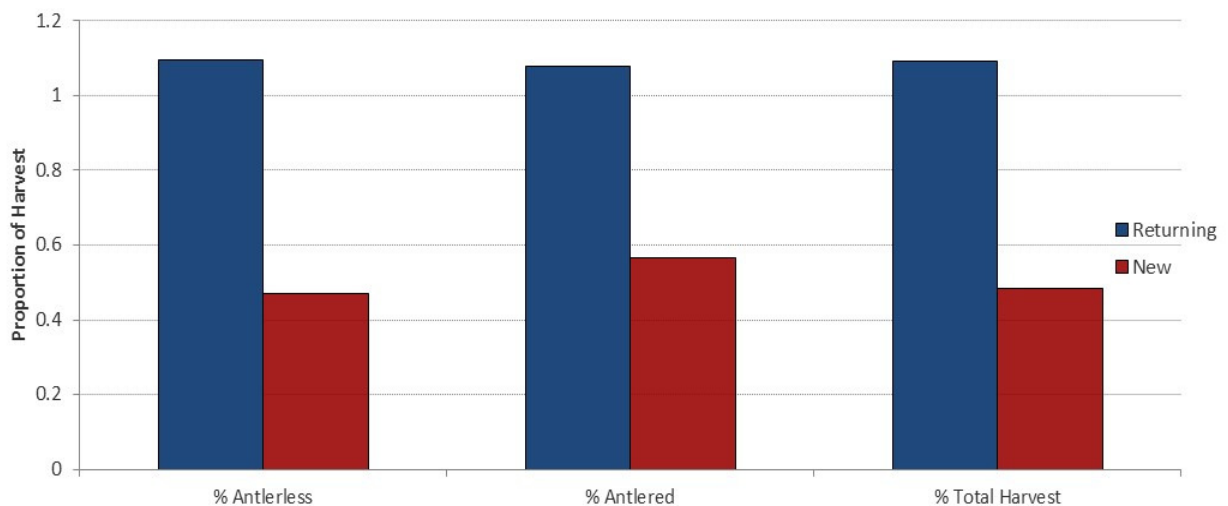


Figure 29. Harvest rates standardized by participation for new and returning hunters for the 2016 Duluth City Bowhunt.



Venison Donation:

In 2016, Duluth bowhunters reported donating all or part of 142 harvested deer (51.1%, red diamond in Figure 30) to friends and family. This value was inflated due to three hunters, that collectively harvested 22 deer. Nineteen of these deer were reported as “donated”. Two of these hunters reported harvesting animals to donate to veterans, an honorable act. However, this probably isn’t the “true” donated percentage by the average hunter. By removing these 19 deer, and adjusting harvest down from 282 to 263, the percentage of deer donated by everyone else was 46.7%. This continues the downward trend for donated venison (Figure 30). As deer densities continue to decline, and hunters have a more difficult time filling their own freezers, it’s to be expected that the deer available for donation will continue to decline.

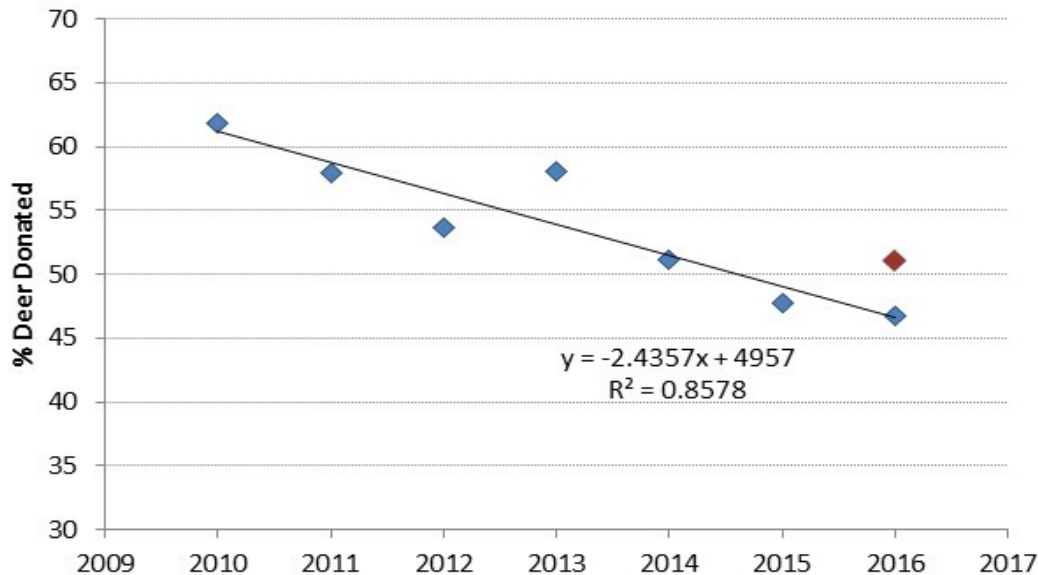


Figure 30. Percentage of venison reported as being donated to friends and family for the last six seasons of the Duluth City Bowhunt.

Mandatory 48 Hour Registration:

The ABA Rules manual states that hunters have 48 hours to register their harvests with the ABA. This year, our hunters largely did a good job at this, with 71.0% following the 48-hour rule (Figure 31). An additional 22.0% registered their harvest within a week. Nine deer were not identified until after the season was over, and hunters were required to check in with their Hunt Coordinators. This amounts to an additional 3.2% harvest. One hunter reported a deer to his Hunt Coordinator that hadn’t been previously registered. This hunter was asked multiple times to go online and register this deer. This deer was never officially registered with the ABA.

Figure 32 suggests that the best the ABA and the City may be able to expect is 80% compliance with the 48-hour rule for harvest registration. Further, data suggests that a consistent 15% - 20% of harvest can be anticipated to be a week late (Figure 32). The ABA can live with this 95% reporting rate. But what really makes the ABA’s job difficult is the harvest that shows up a month or more late, or not at all. The ABA Board will be discussing this and addressing this for the 2017 season.



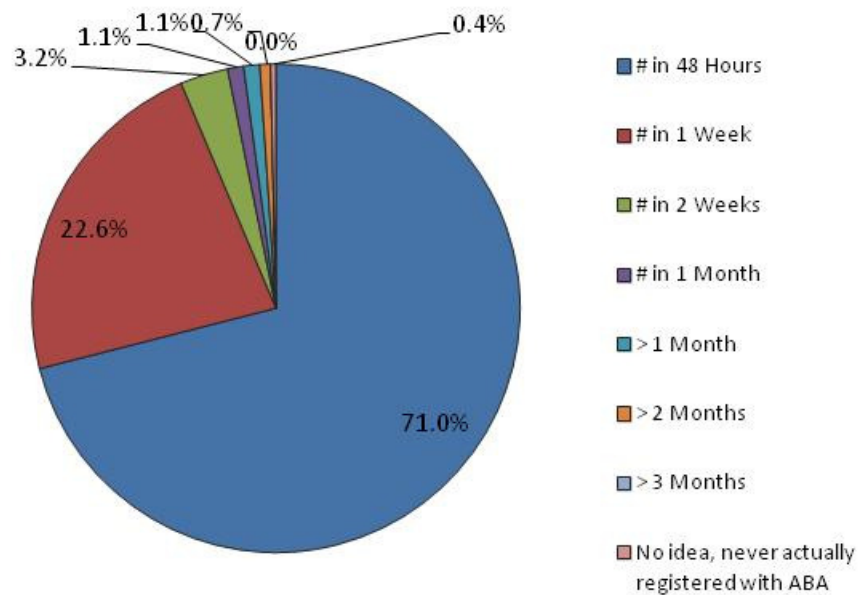


Figure 31. Harvest registration by 2016 Duluth City Bowhunters. The ABA Rules require registration within 48 hours.

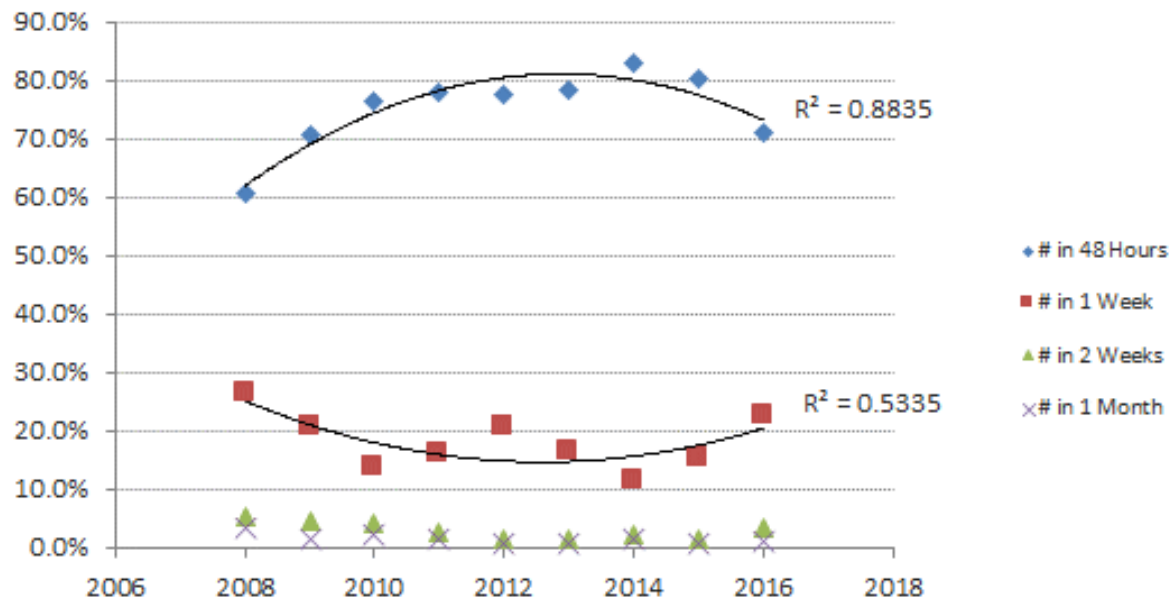


Figure 32. Time between harvest and subsequent registration with the ABA for deer harvested in the Duluth City Bowhunt for the years 2008 thru 2016.

Lottery Results, the Application Process, and Subsequent Harvest

By the 30 June deadline, a total of 365 hunters had applied for the 2016 Duluth City Bowhunt, down from 383 applicants in 2015. Four individuals were subsequently removed for not turning in all of the required paperwork or a check by the 30 June deadline. This left 361 hunters eligible for the Lottery Night to be placed into DHAs.

298 Returning hunters were automatically placed. 165 (55.4%) of these were placed into their First Choice DHA prior to the Lottery Night, due to requesting DHAs where more spots were available than interested individuals. An additional 73 individuals received their First Choice at the Lottery Event, thus placing 238 hunters (79.9%) into their First Choice DHA. Another 31 hunters received their second choice DHA, identified during the application process. A total of 269 returning hunters (90.2%) were placed into one of their first two DHA choices, making it hard to argue that the ABA's lottery model is flawed.

A Lottery night, 54 new hunters were ultimately placed, 25 of whom were actually placed into their first choice DHA identified at the application process (31.5%). 14 others were placed into their second choice (25.9%).

Being assigned a public land DHA does not necessarily mean that is where our hunters spend their time or harvest their deer. At the Year End Survey, hunters were asked to indicate where they hunted the most. Figure 33 shows that 57% of the hunters spent the majority of their time hunting on public land assigned during the Lottery Night. An additional 17% of hunters spent most of their time on private land within the DHA assigned.

Actual harvest from the database was very similar to the data provided by hunters in the Year End Survey (Table 7), where 61.4% of harvest was recorded from the hunter's assigned DHA, either from public or private land (Figure 34). Hunters harvesting deer on public land NOT in their assigned DHAs were due to two opportunities: 1) having the opportunity to harvest within a Hot Spot located on public land, and 2) late-season DHAs switches that were not in their originally assigned DHA. The ABA looked at the data, and unlike previous seasons, no hunter was identified as having illegally hunted public land outside of an assigned DHA.

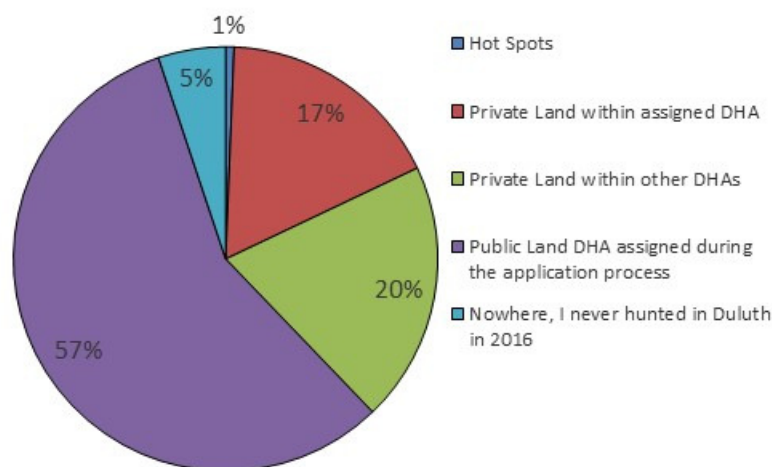


Figure 33. Percentage of hunters identifying in the 2016 Year End Survey where they spent the majority of their time hunting during the 2016 Duluth City Bowhunt.

Table 7. Location of Deer harvested relative to the hunters' assigned DHAs in the 2016 Duluth City Bowhunt. This is not the amount of time spent hunting each spot, as identified in Figure 32.

Count of Harvest = Assigned		
Harvest = Assigned	Public?	Total
Assigned DHA	Private Land	9.93%
	Public Land	51.42%
Assigned DHA Total		61.35%
Not Assigned DHA	Private Land	24.11%
	Public Land	4.26%
Not Assigned DHA Total		28.37%
Opt Out	Private Land	9.93%
	Public Land	0.35%
Opt Out Total		10.28%
Grand Total		100.00%

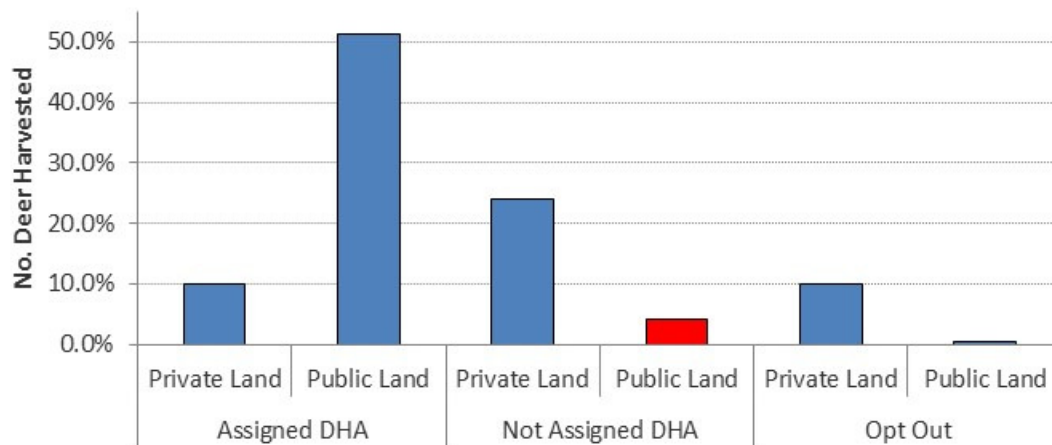


Figure 34. Percentage of deer harvested in public and private lands, and by originally assigned DHAs, for deer harvested in the 2016 Duluth City Bowhunt.

Many folks believe that other hunters have their public land “doe” spots and their private land “buck” spots. The data does not support this perception (Table 8; Figure 35). The vast majority of the antlerless harvest did come from public lands, as did the majority of the antlered buck harvest. The ABA is not suggesting that this is not occurring on a case-by-case basis. This is known to occur, based upon the hunter-hunter conflicts that the Board and Hunt Coordinators have to contend with on an annual basis. But the data suggests that this isn’t widespread. One Opt Out hunter harvested a fawn buck on public land following a late-season DHA move.

Table 8. Location of Deer harvested by deer type, relative to the hunters' assigned DHAs in the 2016 Duluth City Bowhunt.

Row Labels	Deer Type Generalized	Count of Deer Type Generalized
Assigned DHA		
Private Land	Antlered Buck	4
	Antlerless	24
Public Land	Antlered Buck	26
	Antlerless	119
Not Assigned DHA		
Private Land	Antlered Buck	11
	Antlerless	57
Public Land	Antlered Buck	2
	Antlerless	10
Opt Out		
Private Land	Antlered Buck	3
	Antlerless	25
Public Land	Antlerless	1
Grand Total		282

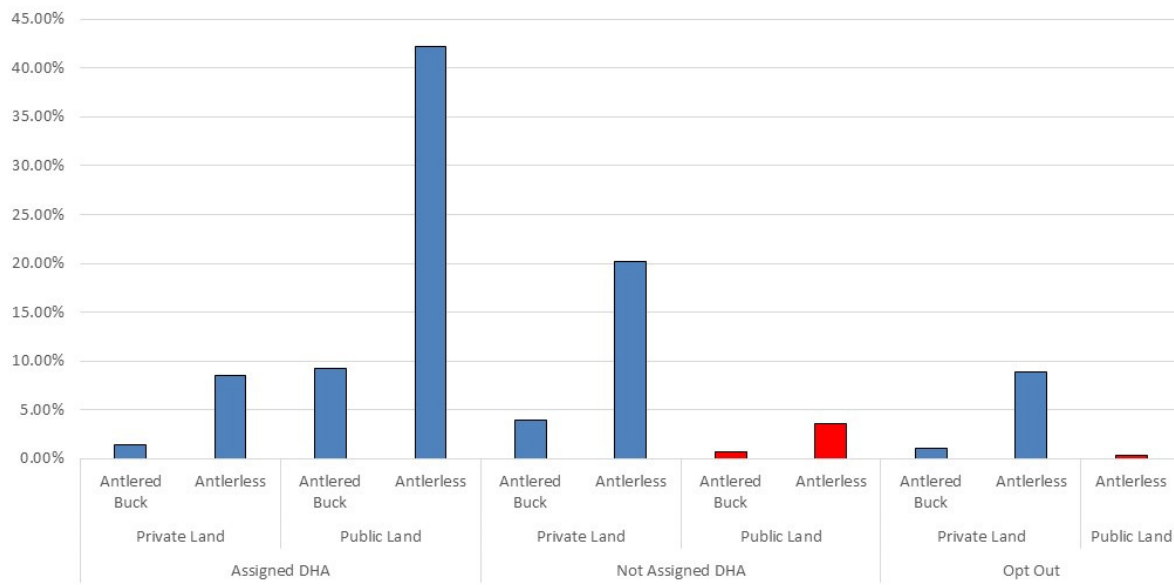


Figure 34. Location of Deer harvested by deer type, relative to the hunters' assigned DHAs in the 2016 Duluth City Bowhunt.

Section 4: Year End Survey:

At the conclusion of every season in the Duluth City Bowhunt, our hunters are asked to complete a Year End Survey. This survey is 100% anonymous. Participants are asked several questions, ranging from wounding deer to additional species observation reports. This season saw a low participation rate for this survey. Only 156 of the



352 hunters (44.3%) took part in the survey. By comparison, survey response rate was 34.9% and 58.0% following the 2015 and 2014 seasons, respectfully. Our 2016 survey respondents were responsible for a reported 66.3% of the harvest, suggesting that if hunters were successful this season, they were more likely to participate in the Year End Survey. The ABA Board is very grateful for those hunters that took the time to provide feedback to the Board and to the City of Duluth. That said, for the 55.7% of the hunters that didn't feel obligated to provide the Board with any feedback, just like if you opt to not vote for politicians, you likewise forfeit your right to complain about what the Board and the City does with respect to the management of this hunt.

Response rate was twice that for returning hunters than for new ones. 148 returning hunters and 8 new hunters filled in this survey. This amounts to 49.7% and 14.8% response rate for the two groups of hunters, respectfully. Of these hunters, 94.9% reported that they actually hunted in 2016 after being placed. The ABA understands that life does happen, and not everyone placed into the hunt at Lottery Night will have the opportunity to actually participate. The respondents largely reported that most (96.8%) will likely apply to participate in the 2017 Hunt. Five individuals indicated that there are just too many rules to follow, and they would not be applying in 2017.

Respondents reported harvesting 187 of the 282 deer. An additional 22 deer were reported as being wounded, with 15 of these deer reported as being "known to have survived" with nothing more than haircuts or scratches. This gives us a reported wounding rate of 10.5% total, or 3.3% if the presumed surviving deer are removed from the analysis.

Individuals indicated that they bowhunted in other areas outside of the Duluth City Limits in about the same percentage as in the past (59.4% in 2016 vs 58.8% in 2015). This may reflect the poor deer numbers in Duluth, and folks seeking venison elsewhere. However, it also reflects the importance of the Duluth hunting opportunity to a vast majority, nearly 40%, of our participating hunters.

Experience as a participant in the Duluth hunt averaged 6.07 ± 0.66 years of experience for all hunters, and 7.51 ± 0.60 years for returning hunters (Figure 36). The ABA is aware of some of our 2016 "new" hunters are returning from previous seasons. The ABA is encouraged by the large number of returning hunters that have been participating for all twelve seasons (Figure 36).

Hunters were asked about the amount of effort spent in the woods pursuing white-tailed deer. This is to gauge how "serious" our hunters are about their recreation. The distribution of activity is significantly different between the two groups of hunters (Figure 37). New hunters hunted an average of 9.2 ± 6.2 days, whereas returning hunters spent 20.0 ± 2.4 days afield ($t = -3.7598$, $P = 0.0019$). These estimates are much lower than during previous seasons, suggesting that our hunters may be getting frustrated with the hunting and choosing not to spend as much time in the woods. But regardless, having this easy and convenient ability to participate in this sport just outside of our front doors is an opportunity that cannot be taken for granted.



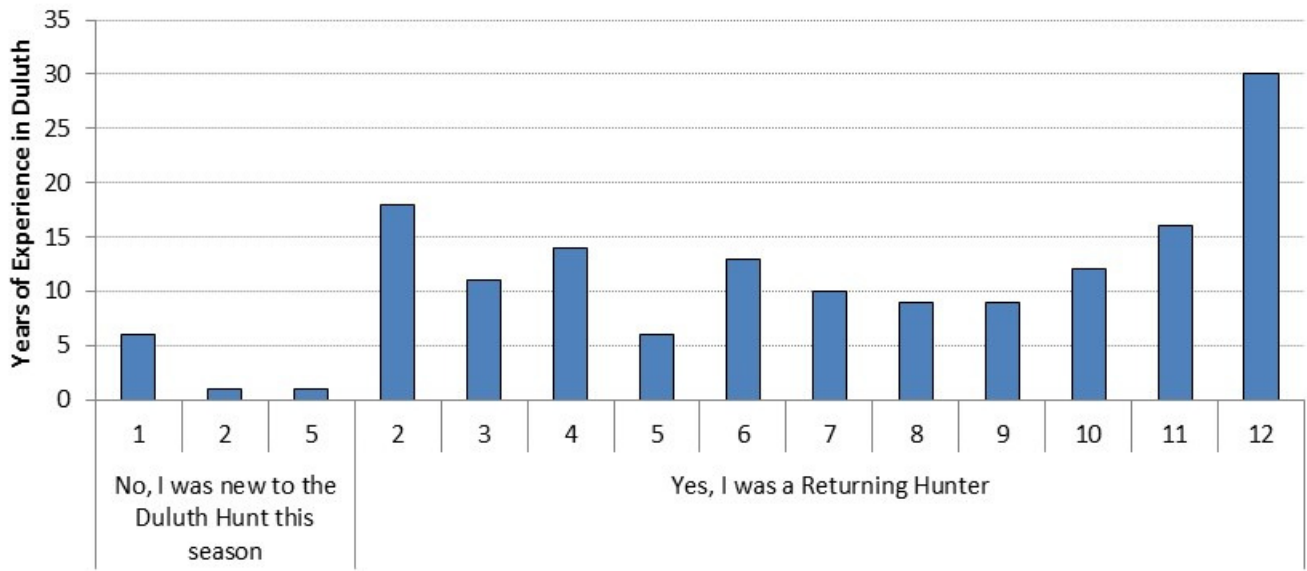


Figure 36. Years of experience in the Duluth City Bowhunt as of the 2016 season, separated by returning hunters and by new hunters that did not participate in 2015. Note many of these “new” hunters have participated previously, but not in 2015.

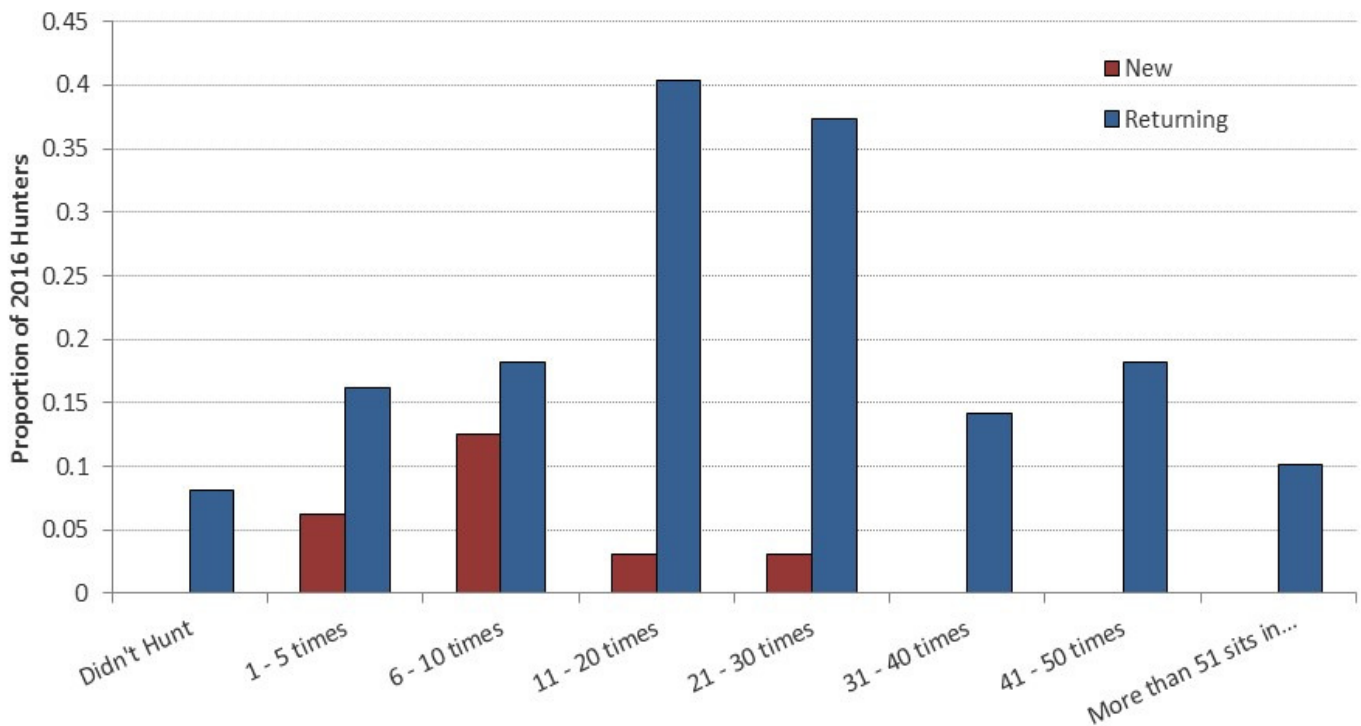


Figure 37. Percentage of new and returning hunters that spent a certain number of times hunting in Duluth during the 2016 Bowhunt Season.

By all accounts, 2016 was a difficult season to put Duluth-raised venison in the freezer. Survey participants were asked whether or not they hunted in other areas. Figure 38 indicates that a majority of both new and returning hunters did bow hunt for white-tailed deer in areas other than Duluth. When asked if hunters participated in the MN State Firearms season, an almost identical 30% - 35% of both new and returning hunters indicated that they had hunted during the firearms season (Figure 39). There are likely several reasons for this participation. Many individuals identified as being members of deer camps, either with friends or family, which represent important traditions. Other hunters did report that they took advantage of the firearms season in order to put venison into the freezer, as they were largely unsuccessful here in Duluth. Others reported simply that they love to hunt, and will take advantage of every available opportunity.

The ABA has been asked by City officials on several occasions why our participating hunters don't harvest more antlered male deer than they do. Obviously there are hunter selectivity patterns that are difficult to model and survey. Many hunters just want meat, and don't care about antlers. Other hunters will only harvest a mature "trophy". These reasons are entirely personal choices that our hunters are allowed to make. A third reason may be that our hunters punch their one-and-only "buck" tag during the firearms season. For those participating in the Year End Survey, 12.0% of our hunters reported harvesting a buck with their rifle (Figure 40). If the percentage holds true for the entire Duluth bowhunter population, this could mean as many as 34 of our hunters punched their "buck" tags during the firearms season.

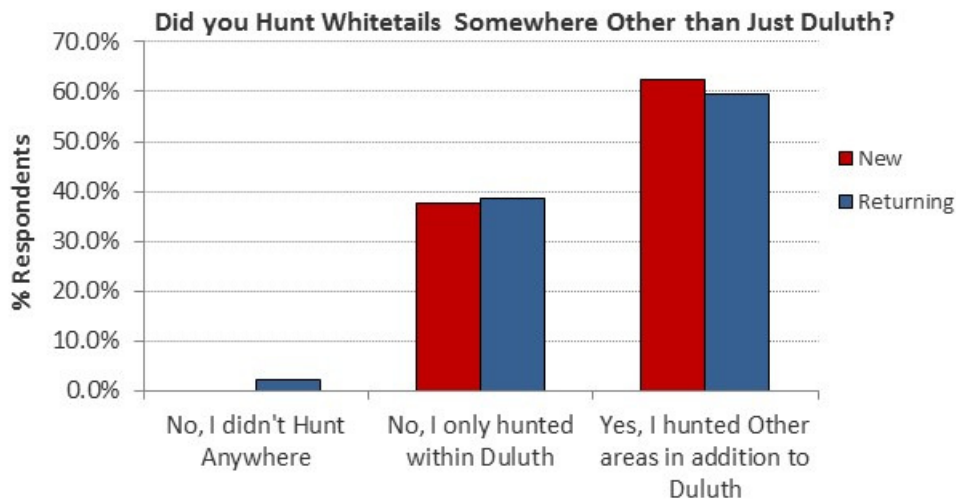


Figure 37. Percentage of year end survey respondents that identified themselves as either new or returning 2016 Duluth hunters, and that indicated whether they bowhunted in areas other than just Duluth.

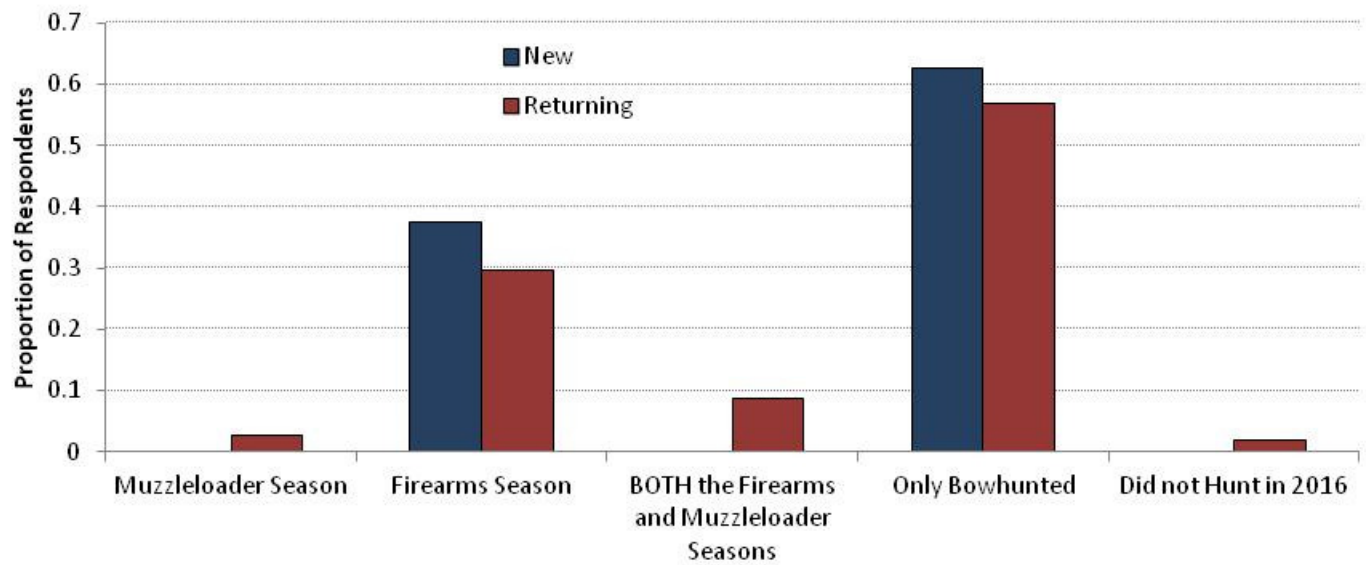


Figure 39. New and returning hunters indicating whether or not they participated in the 2016 Minnesota Firearms Season.

Did you harvest a Buck during the 2016 MN Firearms Season

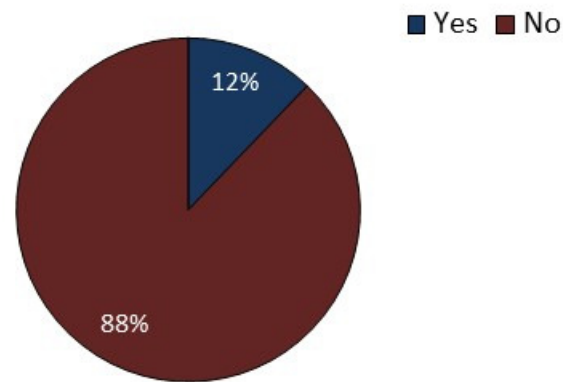


Figure 40. Year End Survey participants indicating whether or not they harvested an antlered male white-tailed deer during the 2016 MN Firearms season.

Conflicts in the Woods:

Those that participated in the Year End Survey indicated that most (87%) had zero conflicts or incidents in the woods in 2016 (Figure 41). This is actually better than previous seasons, suggesting that our hunters may have experienced less conflicts this season than in the past. Last year, 75% of respondents reported no conflicts in the woods. Some respondents (2%) reported issues with presumed non-ABA hunters. This is consistent with reports the ABA received throughout the season, often days or weeks after the fact. The Board can't do anything about that. You need to contact Duluth PD when you run into these hunters. And you need to do so while the illegal hunter is in the woods. Our hunters have jumped thru a lot of hoops to participate in this Hunt. To allow others to do so illegally is not fair to those of us who are legal. Please call the police.

Only 1% of survey participants reported having problems with other ABA hunters, down from 6% during the 2015 Hunt (Figure 41). Hunters were instructed at Orientation Night to play nicely with each other, and it would appear as if most took this seriously. If you are having issues with ABA hunters, please contact your HC or the Board when this happens. The ABA Board will review specific cases and perhaps change the Rules manual to make discipline more severe for folks that simply refuse to play nicely and share the woods.

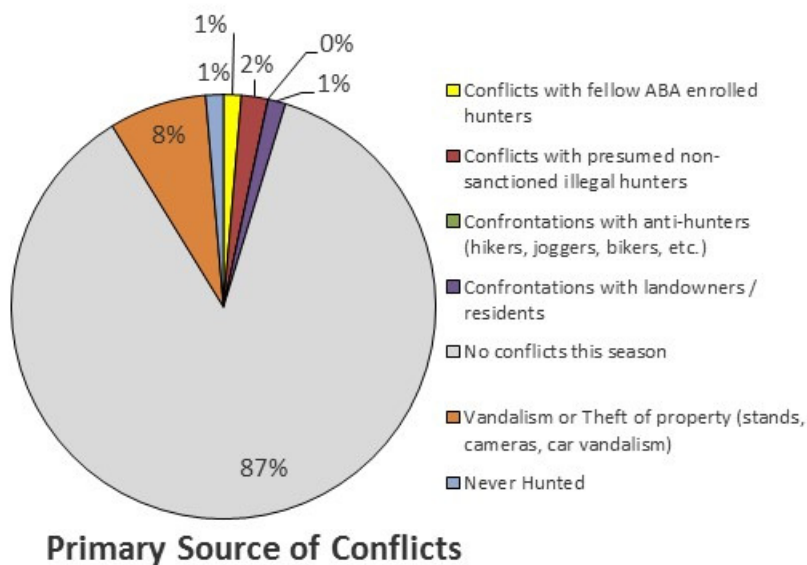


Figure 41. Source of conflicts identified by participants in the 2016 Year End Survey.



Other Critters:

When asked about other species observed in the woods, survey respondents reported seeing or getting trail camera images from several black bear and coyote (Figure 42). No cougars were reported, unlike in previous seasons.

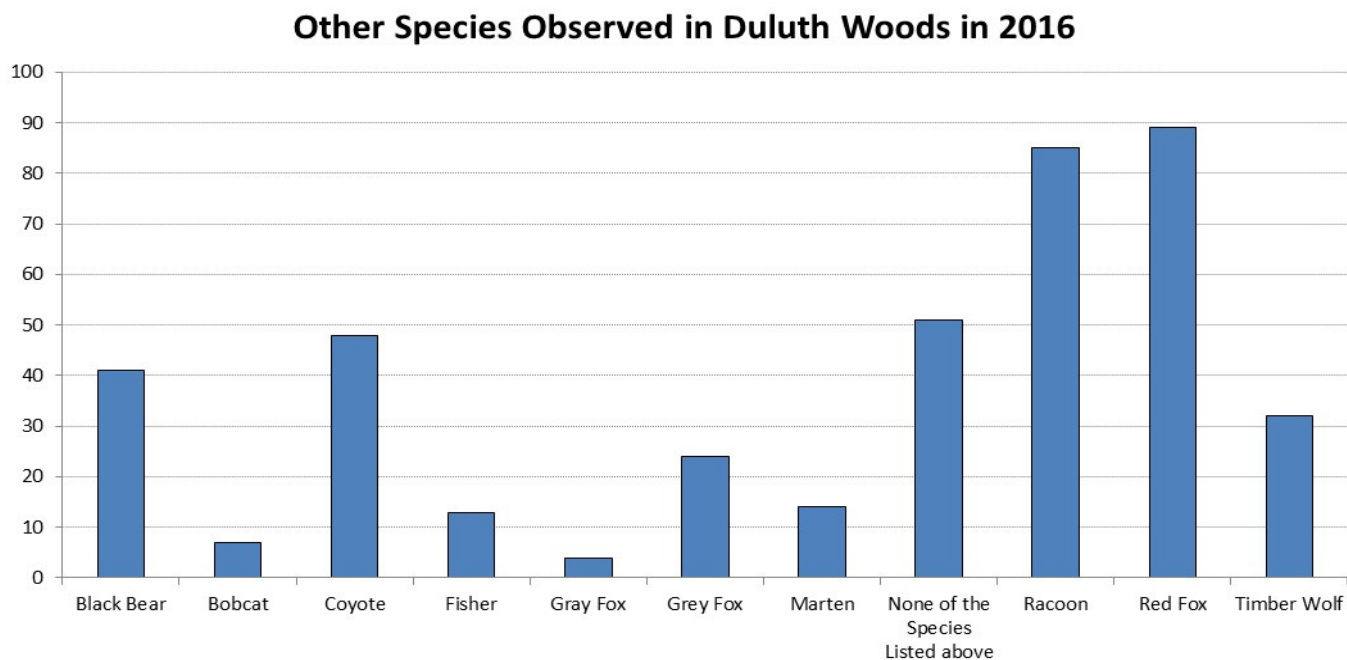


Figure 42. Other species observed while participating in the 2016 Duluth City Bowhunt.

Metro Designation:

Again in 2016, the MNDNR maintained Duluth as a Metro Hunt. No other issue seemed to polarize our hunters as did this one. This designation allowed our hunters to harvest as many antlerless individuals that they wanted to. While some folks took advantage of this new designation, many opposed it. Contrary to rumors on the internet and Facebook, the ABA is not aware that any laws were broken by the two hunters that did shoot more than five deer.

When asked to indicate a level of support for the Metro Designation, and to rank their support between 1 (absolutely no support) to 10 (full support), survey respondents had an average score of 4.2 ± 0.4 (Figure 43). Comments are included in Appendix 3 at the end of this report. The most common response was a 1. Survey participants are almost exactly split in their suggestion for the 2017 hunt, with similar percentages recommending; 1) that the MNDNR keep the Metro designation (31%); 2) that the MNDNR revert back to the five (5) deer limit (27%); or 3) that the MNDNR reduce the bag limit even further (42%) (Figure 44).

When comparing the Metro Designation (unlimited antlerless) to the former management (up to five deer, four of which had to be antlerless), it would, at face value, seem that our hunters harvested an additional seven (7) deer under this Metro Designation (hunter categories 51, 70, and 81, Figure 14). The assumption is that these additional seven deer would not have been harvested. This is probably not a reasonable conclusion. Given the high hunter densities within our DHAs (See hunter comments in Appendices 1 & 2 for evidence of too many hunters), these seven deer likely may have been harvested by another hunter, and perhaps one that failed to harvest any deer in 2016. The true “additional harvest” is likely much lower than the seven deer reported in Figure



14. Further, it's pretty clear from our hunters' comments (Appendices 1 & 2; Figures 43 and 44) that clearly no other issue caused more angst amongst our hunters. The ABA understands the politics surrounding any regulation changes on the part of the State DNR, but perhaps the benefit from continuing the Metro Designation is worth the time and effort to suspend this for the foreseeable future.

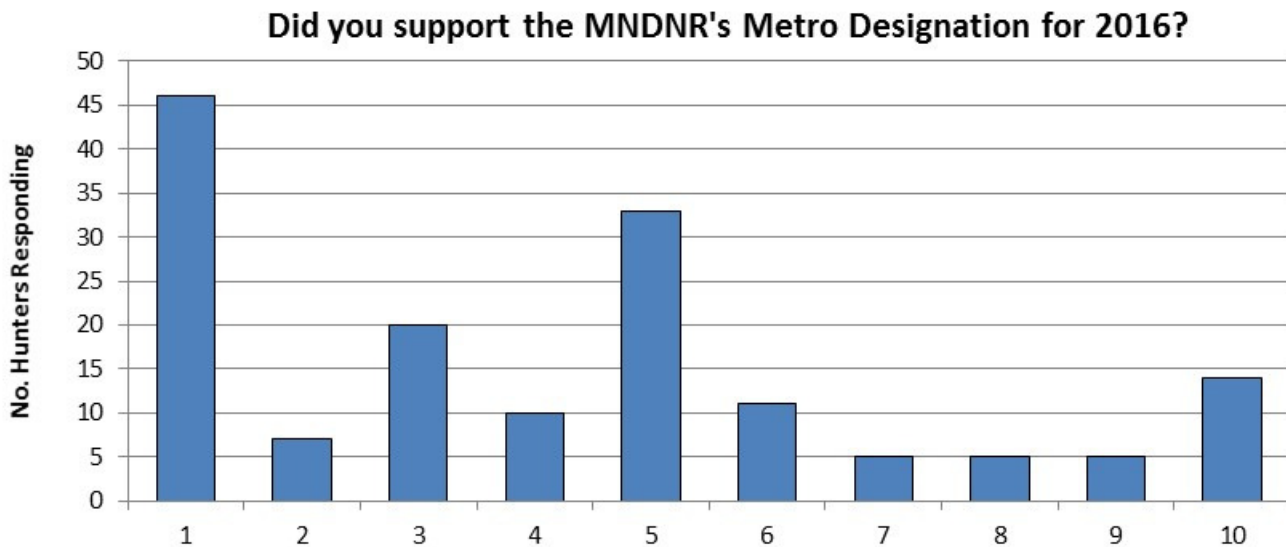


Figure 43. Participants in the 2016 Year End Survey indicating their support or non-support for the continued Metro designation for the City of Duluth.

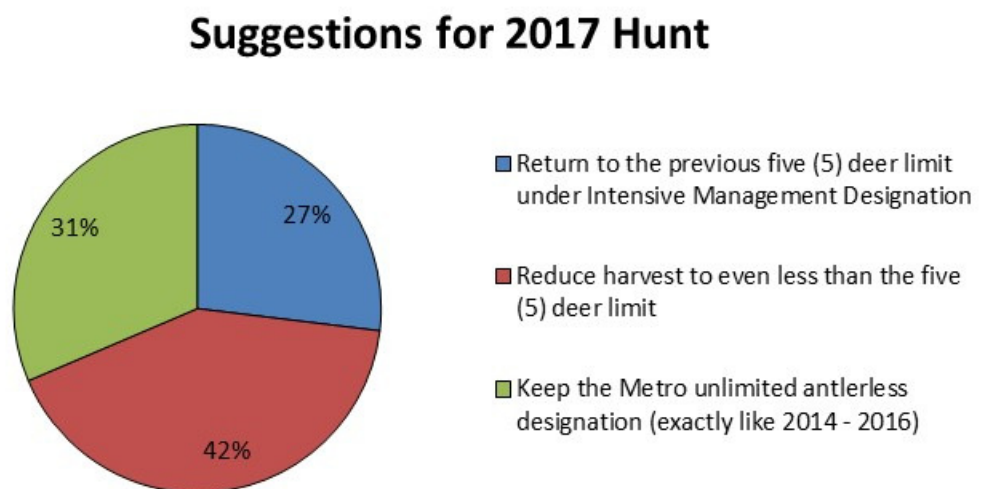


Figure 44. Participants in the 2016 Year End Survey indicating their recommendations for the continued Metro designation for the City of Duluth.



Earn-A-Buck Requirement:

During the last several seasons, many of our hunters have complained that they could have harvested an antlered deer, but did not since they had not yet fulfilled the earn-a-buck requirement of first harvesting an antlerless. There have been inquiries about a one-year suspension of this requirement to determine if harvest could be increased in the absence of this requirement. Many of our hunters have expressed that it is more important to put meat into their freezer than it is to put a trophy on the wall. In January 2016, the ABA did recommend a temporary suspension of this requirement for a one-year trial.

After the 2016 season, the hunters were surveyed on their opinions and feelings of the earn-a-buck requirement. A majority of our hunters (55%) indicated that they'd support a one-year suspension of this requirement (Figure 45). An additional 18% indicated that they didn't care one way or another. Only 27% of our hunters supported maintaining the requirement as it has been for the last twelve seasons.

As a follow-up, our hunters were asked whether or not they *could have* harvested an antlered adult, but didn't due to the earn-a-buck requirement. From those that answered this question, 34.5% of respondents indicated that they had a shot at an antlered individual that they *would have* taken had the earn-a-buck requirement not been in place (Figure 46). Expanding to the total roster of hunters that did not register an antlered individual for the 2016 Hunt, we may have been able to harvest an additional 71.7 animals. The ABA will again recommend to the Duluth Deer Review Committee that we try a one-year suspension of the earn-a-buck requirement in order to allow our hunters a chance to put high-quality meat into the freezer.

Earn-A-Buck Recommendations for 2017



Figure 45. Participants in the 2016 Year End Survey indicating their recommendations for the earn-a-buck requirement for the City of Duluth.





Figure 46. Participants in the 2016 Year End Survey indicating whether or not they could have harvested an antlered buck prior to fulfilling their earn-a-buck requirement during the 2016 City of Duluth Bowhunt.

Wind Storm of July 2016:

In July of 2016, after the ABA placed 352 hunters into the Hunt, Duluth experienced a powerful windstorm that leveled much of the woods in and around Duluth. Many hunters were left without options for hanging stands. The ABA received multiple requests to transfer to other DHAs, of which the Board was not able to do with a full roster. Hunters were advised to seek private lands within other DHAs.

During the Year End survey, respondents were asked whether or not this storm really impacted their hunting, and whether access into their DHA was impacted. A majority of our hunters (60.9%) indicated that their access was not impacted by the storm (Figure 47). 6.4% indicated that access was impossible, and another 32.7% indicated that it was affected. The ABA would propose a minimum of a 6.4% reduction in our hunter numbers for the 2017 Hunt, or 22 less hunters than in 2016.

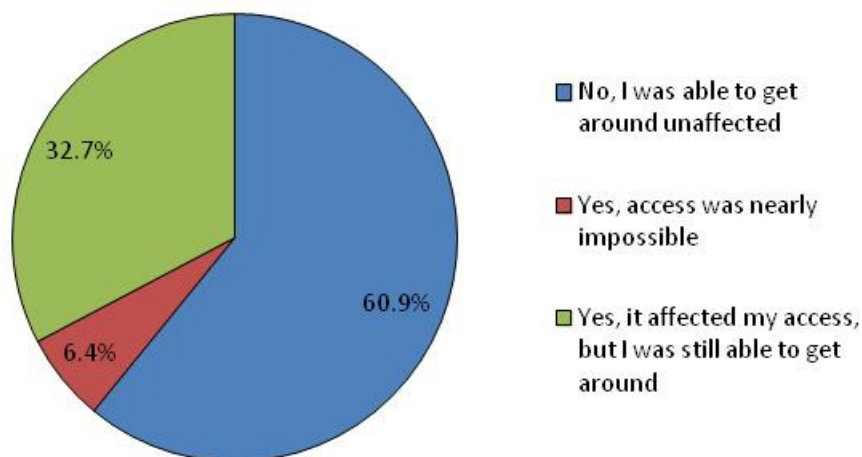


Figure 47. Participants in the 2016 Year End Survey indicating whether or not wind storm affected their access to their assigned DHAs.

Bike Trails

The bike trail system within Duluth is clearly one of the best in the nation. There's no arguing that it certainly attracts tourists into our great City to enjoy the trails, the scenery, and our hotel and restaurant industry. But the trail system seems to be unregulated and somewhat out of hand. Many of the DHAs that have been hunted for more than a decade are now so carved up with the bike trail network as to render them almost unhuntable.

Our hunters were surveyed for their impression of the trail network. The majority of our hunters (61.0%) indicated that the trail network is more than sufficient to meet the needs of the bicyclists (Table 9, Figure 48). Only a minority of our hunters are also bikers (7.3%) and would love to see the trail network expanded.

Table 9. Summary of responses to the 2016 Year End survey asking Duluth hunters about their opinions of the bike trail network in the City of Duluth.

Row Labels	Count of Biking and Hiking Trails
COGGS has gone too far in carving up the woods of Duluth for additional, and unnecessary, bike trails.	24.5%
Enough is enough! We have too many trails! It's beginning to affect our ability to pursue our recreational activity.	25.2%
I know nothing about the bike trail system, and it really doesn't concern me in the least.	19.2%
I'm an avid biker (and hunter), and feel that we have enough bike trails in Duluth.	11.3%
I'm an avid biker (and hunter), and would like to see the trail network expanded even more.	7.3%
I'm in favor of expanding the current bike trail system. There's plenty of space for everyone.	3.3%
I'm in favor of the current bike trail system, and feel the woods are large enough to share.	9.3%
Grand Total	100.0%

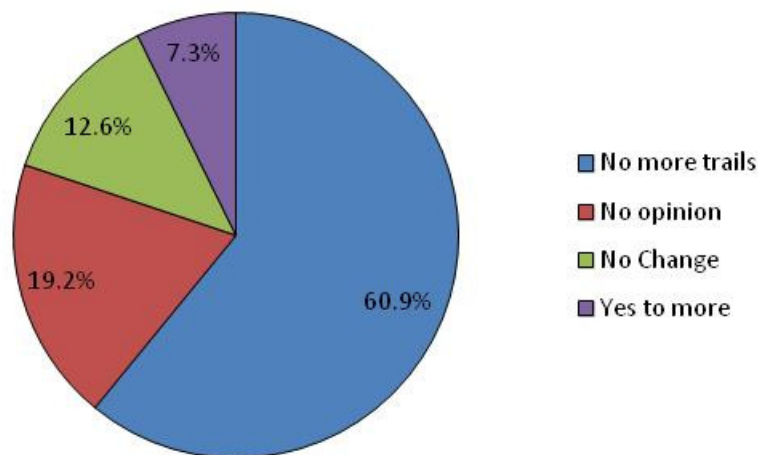


Figure 48. Participants in the 2016 Year End Survey indicating their opinion on the bike trail network within the Duluth City woods. Responses were pooled and simplified from the data presented in Table 9.

Comments from the Masses:

Hunters were all given the opportunity to comment on whatever they felt important. The two questions were worded:

"Given what you saw this season in the woods, what are your suggestions on how we should proceed with the Hunt in 2017?" (Appendix 1, page 44);

"Do you have any ideas or suggestions for improving the Hunt in 2017?" (Appendix 2, page 57);

Well, as can be expected, the responses were all over the place. Many comments were useful. All comments are included in Appendices 1 and 2. A brief summary of the key comments follows:

1) MN DNR sets seasons and bag limits. The ABA can express your concerns to the State, but the ABA cannot change State limits. Please express your concerns to MN DNR.

2) Too few deer left in the City. Yes, our hunters have done a fabulous job at decreasing the deer herd. But the ABA does not set limits. This is a MN DNR decision.

3) The ABA proposed elimination of the earn-a-buck requirement for the 2016 Hunt. It was denied by the Duluth Hunt Review Panel. We will raise the issue again for the 2017 Hunt.

4) Limit the number of hunters. Many folks expressed that there are too many hunters. The ABA will discuss this with the Deer Review Committee.

Board Members for 2016:

Phillip Lockett, President

Brian Johnson

Phillip Mannon, Chairman

Ronnie Lillo

James Dexter

Leif Birnbaum

Alan Vorderbruggen

Brian Borkholder, Secretary / Treasurer

Katrina Wood



Appendix 1. Suggestions received from hunter filling in the Year End Survey when asked, “Do you have any ideas or suggestions for improving the Hunt in 2017?” Hunter comments are in the left-hand column. Response from the Arrowhead Bowhunters Alliance is in the right-hand column.

Comment No.	Given what we saw this season in the woods, what are your suggestions on how we should proceed with the Hunt in 2017?	ABA Comments
1	Get rid of unlimited harvest. While it may not really amount to any change in actual harvest, there's the perception that we still need to pound the population into the dust. That's not the reality. If you are unwilling to suspend earn-a-buck for a year, then suspend it after December 1st. I'd love to be able to put another deer down if possible.	MNDNR sets limits, but the ABA will communicate with the DNR. ABA will once again recommend earn-a-buck requirement be suspended for 2017, but the City is ultimately in charge of this decision
2	Na	
3		
4	Get rid of the earn a buck make it hunters choice	City decision, but the ABA will again recommend this.
5	No changes	
6	Reduce the 400' setback from occupied buildings to about 200'	ABA will look into this recommendation.
7	less hunters would be great. public dha's are too crowded.	Too many hunter-hunter conflicts. Consider working with your fellow hunters to share stands within DHAs. More opportunities that way, especially when others are not hunting
8		
9		
10	Limit harvest of deer for a year or two. The herd is at a point where we need to start maintaining it instead of decimating it all together. I think the herd is lower than a sustainable number and wouldn't hurt to let it bounce back a bit. Its time to re think our approach at this and re structure the hunt a bit. What we have done has been successful. Now its time to maintain a healthy herd.	MNDNR sets limits
11		
12		
13		
14		



15	keep the hunt but drop limit to two	MNDNR sets limits
16	no	
17		
18	limit bike trails or open up more areas	All of the City's large plots of land have been incorporated into the Hunt. Unfortunately, we've been told that we're sharing the woods with other user groups, some of whom really do affect our ability to harvest deer.
19	Two (or three) deer limit going forward. If the DNR doesn't want to eliminate the stupid Metro Designation, the ABA should be able to set its own more restrictive harvest regulations. A possible change might be those who shoot more than one adult doe lose returning hunter status for the next year.	MNDNR sets limits. The ABA is not a wildlife management agency. We manage hunters, not deer. The City of Duluth could decide that they don't want hunters harvesting more than X number of deer, but the ABA can't do such. To putatively punish hunters for harvesting more than X number of deer would result in hunters not reporting their harvest to the City, in order to avoid punishment.
20	see above	
21	Reduce individual harvest limits if the DNR allows. Otherwise you do a great job so thank you!	
22		
23		
24	Drop the earn a buck and let each hunter take 1 to 2 deer.	City decision, but the ABA will again recommend this.
25	Drop the antlerless first requirement.	City decision, but the ABA will again recommend this.
26	its going well	
27	I feel that the hunt is well run, this is not a trophy hunt despite what some people want to turn it into.	Agreed.
28	Allow taking either sex for your first deer. Reduce to three the total limit.	
29	Try to influence the DNR to look into special tag pricing for non residents in the hunt. We already have to go through a lot to be in the hunt I feel we should be rewarded with the same privileges residents have because we have to follow all the same steps to be included.	This will never happen. This hunt is in the State's regulations. As such, they will never give discounted tag prices for non-residents. No other states do this.
30	No	
31		
32	no changes	



33	No	
34		
35		
36	I think the hunt is a great opportunity to keep the deer numbers in check. It was great for me, cut over 20 minutes driving time off my time to get to my stand. I heard some folks complain about the Earn-A-Buck system, I think that should be looked at. Possibly every third year eliminate the requirement, if it was totally eliminated I think it would make the hunt less productive for what it is used for.	
37	what can you do we been doing our job over the years deer herd is thin	Deer herd is definitely thin.
38	I think since the goal was to greatly reduce the deer population in metro Duluth, the ABA's bowhunters have done an impressive job.	Yes, they certainly have done what was promised to the City Council and to the landowners.
39	Limit antler less to two.	MNDNR sets limits
40	No doe first or a late buck harvest	City decision, but the ABA will again recommend this.
41		
42	Get rid of earn a buck and unlimited antlerless. 1 buck and 1 doe limit. Doesn't matter the order they are taken. Try it for a year and compare the numbers. See what happens.	City decision, but the ABA will again recommend this.
43		
44	Less number of hunters, remove out of area and out of state hunters	City decision. The ABA manages how the City instructs us to.
45	I'm wondering how this year's storm will affect next year's hunt. Will hunters in areas that suffered lots of blow down be looking to hunt in areas less affected? Will there be more competition for fewer areas? If I would get bump from my area, I don't think I would participate. I don't want to have to drive more than 20 minutes. I think the hunt is conducted well. People have established patterns now. I don't like all of the game cameras out there. Feel that they lay claim to an area.	This is certainly a distinct possibility. But unfortunately, I'm not sure how the ABA would / could address this. Hunters are free to apply for whatever DHA they are interested in. And fishing cameras all over the City is not against any State or City laws.
46		
47		
48		



49		
50	2 deer limit	MNDNR sets limits
51		
52	My thoughts are if we really want to control deer .. Have a SPRING HUNT	MNDNR sets seasons and limits. Most would argue that we no longer need to control the deer herd in Duluth. We are at "maintenance" phase of the hunt, not "elimination" phase.
53		
54	Get rid of earn a buck and unlimited tags.	Both a City and MNDNR decision. Both are now aware of how our hunters feel.
55	<p>you can see it in the graphs that are provided each week. the harvest is coming down. I would suggest either pulling the amount of deer down to 3 or limiting the number of hunters in the hunt. I couldn't believe my eyes when I came into orientation.</p> <p>this was also reiterated while I was looking for a deer in 17d I also live here. I noticed 12 stands from my neighbors house to rock ridge. I am in the middle of this zone and most deer are running by the time I see them.</p> <p>I did branch out to get into other private property this year due to this issue.</p>	Someone will need to volunteer to step out of the Hunt in order to limit hunters. You volunteering? The ABA can suggest to the City that no new hunters be accepted during the application process for a period of X number of years, but ultimately that would be a City Council decision.
56	Max 200 Hunters	Someone will need to volunteer to step out of the Hunt in order to limit hunters. You volunteering? The ABA can suggest to the City that no new hunters be accepted during the application process for a period of X number of years, but ultimately that would be a City Council decision.
57	no	
58	2 antlerless limit.	MNDNR sets limits
59		
60	Continue doing what your doing.	
61	Seems to me we now have the most over pressured herd that I have ever witnessed. I think we still have to many hunters in woods.	Someone will need to volunteer to step out of the Hunt in order to limit hunters. You volunteering? The ABA can suggest to the City that no new hunters be accepted during the application process for a period of X number of years, but ultimately that would be a City Council decision.
62	Eliminate earn a buck for a year,	City Council decision



63	no	
64		
65		
66		
67	Continue the way it's been done in recent years.	
68	Keep the same as 2016.	
69	press on	
70	For the second year in a row I seen more bucks than does. I had to pass on several bucks so I feel that the earn a buck rule should either be removed or changed to earn a buck up until a certain date.	City Council decision
71		
72	We need more land that's not so segmented with bike trails.	Bike trails are either already built, or in the planning process. They aren't going away. The City keeps racking up national accolades for their bike trails. Don't expect any changes. And we've already included most, if not all, the large patches of woods into the Hunt. While it sucks, there's little we can do other than to continue hunting and sharing the woods with all user groups. Duluth resident hunters should press their elected representatives on stopping this trend of carving every inch of the woods for bike trails.
73	Limit to 3 antlerless and 1 bonus buck	MNDNR sets limits
74	Nope. Great job and Great hunt.	Thank you.
75	I am not seeing nearly the deer I have seen in the past, does and especially big bucks. I had no real big shooters on all my cameras for the first year this year.	Yes, we have definitely had an effect on the deer herd within the City
76	go back to 5 tags	MNDNR sets limits
77		
78	Reduce limit down to no more than 3 deer total, get rid of earn a buck. Close bike/hiking trail from late Oct to end of Nov	MNDNR sets limits. City Council determines future of the earn-a-buck requirement. The ABA has absolutely NO power to close bike trails. Nor should you expect COGGS Bike Club to care one bit about accommodating our hunters. They want more bike trails.



79	Limit the amount of hunters. Reduce hunter numbers within all zones. This would free up some space to scout new areas during the season, where as that has never been available because of the crowds. We could have maximum 150 Lottery hunters with preference points given to those not drawn for the following years. You could also retain the opt out hunters. Hunter limits are the norm in most urban hunts.	That would be a City Council decision. Your plan would result in an individual hunter only being able to participate in public land perhaps every other season, or even 1 out of 3 seasons. This ok with you? You willing to give up your spot for 2 out of 3 years? True, hunter limits are the norm in urban hunts. The model the ABA has adopted has been to maximize opportunity for the most number of hunters. Our model is by no means perfect, but it also isn't totally flawed.
80	I would cut back on the number of hunters allowed to hunt	Who's volunteering to give up their spots?
81	I could have taken multiple bucks this season, but never saw a doe in person. I did get trail cam pictures of does, so I figure it was poor luck.	You are in the company with the majority of our hunters.
82		
83	I think either sex would be great. I would've harvested the two bucks(I had the opportunity) if it were legal. One was a fork but I would've gladly taken him. I like the meat. I never got a doe. On the way to a hunt, I saw a dead buck from a car collision on Jean Duluth Rd. Police were there so there was damage. If I could shoot bucks these collisions would be reduced. Maybe, If a hunter hasn't harvested a doe by a certain time, then he could be allowed to take a buck	We suggested this to the City in 2015 and again in 2016. Will try again this spring. Perhaps the third time may be the charm.
84		
85		
86	I would like to see deer harvest lowered. I am for deer herd maintenance that is why I would like to keep the earn a buck. I believe that earn a buck with 1 bonus antlerless permit will keep the deer herd maintained. That still allows hunters to harvest 2 deer per person (1 antlerless first and 1 either sex), and with the average hunter success rate of less than 2 deer per person over the entire span of the hunt this will still keep the deer herd maintained.	MNDNR sets limits.
87	If the goal is to reduce the herd by killing doe than perhaps the hunt should be about killing doe instead of shooting just one doe to concentrate on that trophy buck	Not too many hunters did what you are accusing folks of doing. Most failed to harvest a single deer.
88		
89		
90	you guys are doing a great job	Thank you.
91	Eliminate earn a buck for at least a few seasons!	We suggested this to the City in 2015 and again in 2016. Will try again this spring. Perhaps the third time may be the charm.



92	Shoot any deer. No more bike trails.	City Council decision on the earn-a-buck requirement. Bike trails aren't going away any time soon. Expect even more trails in the future. Contact your elected representative and complain about the trails.
93		
94	Yes	Yes what?
95	Sounds like its doing its job with reduced harvest numbers. That being said I would like to see the earn a buck eliminated to see what kind of numbers are seen for 2017.	The ABA has suggested removing this requirement in the past. Will try again for the 2017 season.
96		
97		
98	Business as usual.	
99	Earlier lottery so I can scout more.	Bork has to have enough time to set up the Lottery. He has a full time job and a part time life. He does this as fast as possible. If you would like to volunteer to take over, he'd gladly pass the torch. You have from mid-June thru the month of August to scout. Really, would another week of scouting make that much difference? If it would, then please contact Bork and tell him he's a lazy slug, and that you'll be taking over the tasks for the ENTIRE season, and not just the Lottery set up.
100	It fine	
101		
102		
103		
104		
105	<p>1.Metro is fine.</p> <p>2. Get rid of the earn a buck for returning hunters.</p> <p>3. A doe shot the previous year should go towards your buck if you keep earn a buck.</p> <p>4. Doe shot in hotspot should count towards ones earn a buck.</p>	<p>1. MNDNR Decision, but you'd be in the minority. 2. City Council decision, and you'd be in the majority. 3. City Council decision, but that would be a management nightmare for the ABA. I doubt seriously that the ABA would support this. 4. Shooting a doe anywhere within the City (DHA public, private, and hot spot) counts as your earn-a-buck requirement. Not sure who told you otherwise.</p>
106	Suggest eliminating earn a buck. Limit tags to two animals in Duluth hunt.	The ABA will again recommend to the City to suspend earn-a-buck. The MNDNR sets limits on the number of animals allowed.
107	No	



108	Reduce the number of hunters and reduce the bag limits. Eliminate the Metro designation and move it to a managed zone. When you have zone 182 an intensive harvest zone, everyone hunting close to 182 registers there deer in 182 whether or not they shot it in 182. The intensive harvest designation in 182 is negatively affecting the antlerless population in southern st. louis county. Get rid of it.	MNDNR sets bag limits and zone designations. But we are looking for volunteers to give up their spot in 2017. Someone needs to volunteer. Your comments about 182 will be passed along to the MNDNR.
109		
110		
111	get rid of the earn a buck and the metro designation	The ABA will again recommend to the City to suspend earn-a-buck. The MNDNR sets limits on the number of animals allowed.
112		
113		
114		
115		
116		
117	It would be nice to remove the earn a buck limitation part way through the season. Maybe after the rifle season, remove the "earn a buck" rule for those of us hunters who are trying hard to get our first doe but are only seeing bucks.	A good compromise if the City doesn't want to get rid of the requirement for the entire season.
118	It would be nice in the blow down area of 16B to be allowed to do some clean up. I do understand that you can't count on the discretion of people however it's a mess.	
119	get rid of earn a buck, My family depends on venison in the freezer, with 4 kids groceries get expensive, and venison has been a staple in our family.	City Council decision, but the ABA will again recommend this for 2017.
120	Add more zones and hotspot areas. Also allow bucks to be shot in the hotspot areas. I believe a large population of the does have been pushed into the neighborhoods and are untouchable.	We believe that most of the "hunnable" areas are included in the Hunt. The ABA does not bully our way into neighborhoods. When landowners contact us, we begin the interviewing process to add more hot spots. But we do not go on door-knocking campaigns to find more spots. We are lowly volunteers. But you are 100% correct in your observation that most of the deer are now residing in tiny tracts of woods that are not able to be safely and discreetly hunted. This serves as a pool to restock the areas that we are able to hunt.
121	at this point, the best way to further reduce deer numbers is to kill more bucks. I sat many full days during the rut and saw 1 doe and 15 bucks	City Council decision, but the ABA will again recommend this for 2017.



122	Same	Same as what?
123	Be able to take bears	Absolutely not! The ABA doesn't want this responsibility or liability. Too much liability with bears and the public. And can you imagine the bitching and complaining we'd get from 350 hunters that were not given one of 50 tags?
124		
125	Drop earn a buck.	City Council decision, but the ABA will again recommend this for 2017.
126		
127		
128	Catered orientation with strippers and free drinks	Great suggestion on the drinks! But I'm not agreeing to the reference to the degradation of our lovely women. Who'll pay for the drinks and food? Because in spite of what our government has taught you, nothing is free. Someone has to pay. We could increase City fees from \$20 to \$50 to cover the "free" drinks and catering, but those that don't drink will be upset. So let's just keep it as is. Seems to work better than the old days in the UMD Lecture Halls.
129		
130	Saw less deer, but that's the point, right?	Absolutely. While we may not like it, the results are exactly what we promised to the City Council and the city residents.
131		
132	Get rid of having to having to shoot a doe in order to shoot a buck.	City Council decision, but the ABA will again recommend this for 2017.
133	eliminate earn a buck	City Council decision, but the ABA will again recommend this for 2017.
134		
135	<p>* Get rid of earn-a-buck. Insurance companies don't care whether or not the deer that you crash into has boy parts or girly ones. Also, as far as I've been able to tell, bucks appear to have the same garden-eating capabilities that does do. It's silly because you're still going harvest the same number of deer that you're able to or want to anyway (which includes doe(s)). The only thing it does is prevent a hunter from taking advantage of an opportunity they'd be thrilled with otherwise. I understand why the rule was implemented, but it doesn't work the way it was intended to.</p> <p>*Extend the antlerless season into January, similar to the way that WI does it. I'd like to see the unlimited antlerless tags go but see the antlerless season extended. Either extend the entire season into the first week of January, or make part of January an antlerless only season - even if it's just for the metro designations. I think this is a fair compromise that allows hunters, the city, and the DNR to achieve their goal(s).</p>	The ABA will propose a one-year suspension of the earn-a-buck requirement. We tried for the 2016 season. There's no promise for the 2017 one. The MNDNR sets seasons and bag limits.



136		
137	no earn a buck and no unlimited tags	Noted above. Will present to the MNDNR this suggestion.
138		
139		
140	The hunt is working well as a management hunt. No changes needed.	
141		
142	The ABA really needs to revisit public lands for hunting within Duluth. Land has sold, the maps are outdated, and you keep stuffing the same amount of people if not more into those areas. No earn a buck.	The ABA will propose a reduction in hunter numbers and suspension of the earn-a-buck
143	Please reduce the limit to 2 deer (1 bonus tag) 3 (2 bonus tag) or 5 (as it was previously). Earn a buck is the crux of our deer management model, and it is good for public relations too. Please consider reducing the allowable harvest per hunter to these numbers regardless of DNR regulation. I would also suggest making hotspots 1 deer only. Only let hunters harvest 1 (or 2) in a hotspot and then let someone else in who has had zero deer. This would get more people hunting hotspots and give them a better shot at success also.	The ABA does not participate in wildlife management. The MNDNR maintains sole control over this. If the State says "unlimited" or "5 deer", the ABA is charged with managing this. The ABA is not sure they can tell hunters they can't do what the State tells them they can. Your Hot Spot suggestion is brilliant. This will be discussed at the next Board meeting.
144	Deer mngt has been taken over by the timber wolves (at least in the Kenwood-Ridgeview area. Forcing me to look elsewhere for critters.	
145	No changes from this year.	
146	reduced bag limits	
147	I saw deer, harvested a deer and was completely satisfied. I was happy and glad I signed up with you guys.	Glad to have a satisfied hunter. You are in the minority.
148		
149	Remove the earn a buck requirement. I had opportunities to harvest bucks early season but didn't even see an antlerless deer until November or have those who shoot an antlerless in the previous season open to shoot a buck to begin the season	Can't carry forward earn-a-buck from one year to the next. That would become a logistical nightmare. By far the easiest thing would be to suspend the requirement altogether.



150		
151		
152	Keep it up!	
153	Move the limit to two (managed) and it would be nice to not have the earn a buck.	Both will be recommended for 2017
154		
155	<p>1. Dissolve the ABA</p> <p>2. Keep the city zones</p> <p>3. Increase the fee \$ and put a limit on the amount "X" of hunters admitted. First come, first serve basis.</p> <p>4. Private land only- public land in Duluth has been carved up in the past decade and use of the Hiking, mountain biking, horse, cross country ski, snowmobile, multi-use and Lake Superior hiking trail is on the rise.</p> <p>5. Signed Landowner permission slip and valid MN DNR deer lisc-good to go!</p> <p>6. Earn-a-buck</p> <p>7. Register harvest at a community center.</p> <p>DONE</p> <p>The city of Duluth will still gain revenue. UMD can still collect organs. Sportsmen and women can still hunt. Him insta can still enjoy trails and everyone will get more family time and fewer lectures.</p>	<p>1) Would LOVE to have the ABA dissolved and the City pick up management of this Hunt, but that's not likely to happen anytime soon. So you're stuck with us. 2) City of Duluth sets hunter fees based upon the proposed budget of the ABA. 3) Can't do first-come, first-serve, that's what the Lottery is for. 4) There's still some public land that is huntable. 5) That's how Hermantown runs their hunt, please check them out. 6) Earn-a-buck will be recommended for suspension. 7) Community centers won't do this.</p>



Appendix 2. Suggestions received from hunter filling in the Year End Survey when asked, “Do you have any ideas or suggestions for improving the Hunt in 2017?” Hunter comments are in the left-hand column. Response from the Arrowhead Bowhunters Alliance is in the right-hand column.

Comment No.	Do you have any ideas or suggestions for improving the Hunt in 2016?	ABA Response
1		
2		
3		
4		
5	No	
6	Reduce the 400' setback from occupied buildings to 200'	ABA will look into this recommendation.
7		
8		
9		
10		
11		
12		
13		
14		
15	cut the crap just hunt	Unfortunately, the ABA is charged with managing people. People can be messy to deal with. Requires rules and crap. Sorry, but that's the nature of urban hunts.
16	I think it is very well managed.	Thank you, you are in the minority.
17		
18		
19	You guys do a great job! Thank you!	Thank you, you are in the minority.
20	I believe you should not have to harvest a doe first. However you should only be allowed to harvest one Buck.	You are only allowed to harvest one buck. State statute. If you know otherwise, you need to contact MNDNR Conservation Officers to investigate.
21	I think it is run very well! I appreciate the work that goes into making it accessible, safe and publicly supported.	



22	No you do a great job . Thanks	Thank you, you are in the minority.
23		
24		
25	Drop the antlerless first policy...or at least after Oct 15th.	The ABA will once again make this recommendation to the City. But ultimately it is their decision.
26	It is run well	
27	The board does a great job managing not only the hunt but I feel is in a tough spot, damned if you damned if you don't. The only thing i have issue with is not being able to remove hunters that conduct themselves in an ethical manner. Issues with cut support wires that could have killed someone yet that guy wasn't removed. What's it gonna take?	The City has made it very hard to remove hunters without rock-solid evidence, or a court decision of "guilty". Even with that, it is sometimes difficult to get the City to agree with ABA's decisions and not undermine us.
28	Your doing a great job	
29	thanks for all of your volunteer services	
30	City of Duluth residents should have top priority on where to hunt!!!	City Council decision.
31		
32		
33	nope, good job this year	
34		
35		
36		
37	cut back on # of hunters	Need volunteers to step out of the hunt for a few years.
38		
39	Limit antler less to two.	MNDNR sets bag limits.
40		
41		
42	Justs previous comments	
43		
44		
45	I'm sure that this is nothing anyone can address, but I hate seeing all the game cameras out there. I don't like the orientation although this year's was better. Appreciated the onus being on the hunter. I'm worried that not having bad facial hair and wearing camo sets me apart from the minions at the orientation.	No laws or ordinances against fishing game cameras all over the City. Orientation Night is a City-mandated requirement. We have tried to make it as painless as possible.



46	The bike trails are some of the best things about Duluth. The city is making a lot of money from tourism and tax base (I believe young people are staying and moving to Duluth because of the trails). If fought against too hard and the city is forced to choose I feel they would choose the bike trails. Bowhunters are aware of bikers, bikers have no idea what is in the woods around them.	Awfully good points you have there.
47	I know its not up to the ABA, but it seems like a lot of us DO NOT enjoy the Earn A Buck nonsense	I think most of us no longer enjoy the Earn-a-Buck requirement
48	Everything seems to run pretty smooth.	Mostly, except for a few folks that are intent on making things difficult
49		
50	See above answers. You folks are doing ba great job and I am grateful for your contribution s to keep this opportunity available to Duluth resident's.	
51		
52	Do away with the Doe first restriction for shooting a Buck ...Also if a person shoots 5 Deer how about giving that person a pass in not having to take his or her shooting test the next year ? Thanks for what all you guys do ..	City Council decision, both on the earn-a-buck requirement and the required proficiency testing. Plus, your suggestion would add even more work for Bork to track. Doesn't he already have enough to keep track of? It's a simple test.
53	Get rid of earn a buck. My trail camera showed a couple of does but many bucks 4 to 1 ratio.	City Council decision. The ABA will again suggest a suspension of this requirement in 2017
54	Please be consistent enforcing the rules.	Please contact the ABA and tell us where we've apparently shown favoritism.
55	your mom is sooo just kidding. I enjoy the hunt and I am one of the lucky ones that can step out into my backyard to do it. I appreciate the hard work that you and the other board members put into pulling this together. thank you	
56	Need to reduce hunters	Need volunteers to step out of the hunt for a few years.
57		
58	You do a great job of coordinating the hunt, thanks!. No changes recommended.	
59		
60		



61	Reduce hunter numbers.	Need volunteers to step out of the hunt for a few years.
62	Eliminate earn a buck for a year and see how the harvest goes	City Council decision. The ABA will again suggest a suspension of this requirement in 2017
63	no	
64		
65	I like the way we did the orientation night. It was short and sweet. i didnt hunt this year due to an overwhelming work load and the fact that most my usual trees where blown over.. the woods changed this year and that could be a good thing going into next year...	
	keep up the good work, i appreciate all your efforts. Thansk much.	
66		
67	I think it works well the way it is now.	
68		
69		
70	Change or do away with the earn a buck. I would change this rule so that if you haven't harvested a doe by a certain day, all deer are fair game.	City Council decision. The ABA will again suggest a suspension of this requirement in 2017
71		
72		
73	Reduce limit as above	MNDNR sets bag limits.
74	no	
75	Not really.	
76	Get rid of some guys that are trying to get this turned into a trophy hunt!!	We can't unless they actually break a State law or City Ordinance. Being a pain in the @\$\$ isn't justification for removal.
77		
78	Question above was faulted: Should have been an answer I shot a antlerless then a buck If you did not harvest an antlered male, could you have had you registered your antlerless at the time? *As in, did you have a shot at an antlered male that you WOULD HAVE TAKEN had you already had your antlerless harvested? But you were not able to harvest the buck since you had not fulfilled the Earn-a-Buck requirement. This question is to gauge what harvest may have been in the absence of the Earn-a-Buck requirement No, I never saw an antlered buck that I would have harvested No, while I saw an antlered male that I would have loved to have harvested, no shot ever presented itself	



	Yes, I could have harvested an antlered buck, but did not since I hadn't registered an antlerless at the time Yes, I could have harvested an adult male, but I hadn't registered an antlerless at the time. I later did register an antlerless, and still was able to harvest an adult buck	
79	Limit hunter numbers within zones. Eliminate earn a buck. I would say the deer ratio has swung in the bucks favor. 60/40.	Addressed multiple times above
80	Since I have moved on from this hunt it wouldn't be fair to make suggestions.	Good luck in your future endeavors
81	fewer hunters overall? I know several zones were majorly affected by wind storms and or trails and are difficult to hunt. We may need to consider only allowing return hunters.	Need volunteers to step out of the hunt for a few years.
82		
83		
84	There are too many bike trails.	There might be, but they aren't going anywhere
85		
86	I think the hunt is ran great. The ABA does a great job and I would like to thank all of you for the many hours of hard work you all put in. My only other comment is that I and many land owners would like to see the deer tags lowered to not eradicate the deer population. The hunt has lowered the deer herd to an easily manageable population, now it is time for maintenance and not extinction. I believe with 1 bonus antlerless tag(earn a buck) and 1 either sex tag we can complete the maintenance of the herd to keep everyone happy.	MNDNR sets bag limits. But nyour points are well made and will be pointed out the State and City officials



87	<p>The ABA does a great job. I have come in contact with 3 board members, Mannon, Lockett, and Borkholder and they were all very nice and easy to work with and helpful.</p> <p>I would like to see safer stands for hot spots.</p> <p>I would like to see a huge fine for people that continue to feed deer.</p> <p>I've only hunted two years in the city limits but I've always wondered why the hunters who are providing a service to the city by removing deer that cause car accidents and destroy plants and gardens are having to pay the city to hunt here! The city should eliminate this fee or better yet pay each hunter who kills a deer!</p>	<p>And those that you met are actually the biggest jerks on the Board! You should meet the others. They're much friendlier.</p> <p>Contact Duluth PD about illegal feeding. They don't seem to care when we do. Fees cover all sorts of admin, e.g. arm bands, maps, hot spot stands (even the unsafe ones), mileage for when Board members have to investigate illegal activities or setting up hot spots, web site maintenance and service, etc. Nothing is "free", in spite of what D.C. tries to tell us. And the City has no money to fix pot holes. You think they'd pay us to kill a deer or two?</p>
88		
89		
90	<p>give hunters more incentive to save hearts and livers. ie a gift card/ticket raffle for those who participate</p>	<p>UMD did this in 2015. Bork forgot to press for this in 2016. He'll try to remember to remind UMD of our free service, and ask for a little incentive. But this would be 100% Bork's fault in 2016, not UMD's.</p>
91	<p>Is your father fine to insult? U guys do a great job! Let's make sure whitetail deer are not extinct from city limits!</p>	
92	<p>Skip earn a buck.</p>	<p>City Council decision. The ABA will again suggest a suspension of this requirement in 2017</p>
93		
94	No	
95		
96		
97		
98		
99		
100		
101		
102	<p>Possibly consider reducing the number of hunters allowed.</p>	<p>We'd need volunteers to step out of the Hunt.</p>
103		
104		
105	<p>see previous</p>	
106		
107		



108	Increase the deer population, reduce the number of hunters.	MNDNR is the deer management agency. ABA manages participants. We'd need volunteers to step out of the Hunt.
109		
110		
111	no	
112		
113		
114		
115		
116		
117	It would be nice to remove the "earn a buck" rule after rifle season is finished for those who are just having bad luck seeing does.	Yes, it would be nice. ABA will again request this.
118		
119	Really like to see the earn a buck go, Sure there are some trophies out there still but the average Joe just wants to hunt and provide for his/her family.	You are correct about the average Joe. We'll request this again in 2017.
120	Again more hotspot areas and zones to make all the deer accessible. The bike trails are getting ridiculous. We pay taxes in this town and state just like most other people and should be allowed to have a voice on this.	We believe that most of the "hunnable" areas are included in the Hunt. The ABA does not bully our way into neighborhoods. When landowners contact us, we begin the interviewing process to add more hot spots. But we do not go on door-knocking campaigns to find more spots. We are lowly volunteers. But you are 100% correct in your observation that most of the deer are now residing in tiny tracts of woods that are not able to be safely and discreetly hunted. This serves as a pool to restock the areas that we are able to hunt. Contact your elected representative to complain about the number of bike trails.
121	I've got nothing you won't hear from 100 other hunters	
122	Ssme	
123	Shoot bears, no earn a buck	No bears. We'll again suggest suspending earn-a-buck.
124		
125		



126		
127		
128	Yo mamma is so fat.. She eats Wheat Thicks!!	Actually, I love Wheat Thins. I'd bet Wheat Thicks are even better! Please bring some to the Lottery Night in June.
129		
130		
131		
132	Tough job and all considered, you guys/gals should be commended for your efforts.	Thank you, you are in the minority.
133	less rules - not a fan of more regulation...I just want to bowhunt and not worry about things like if my arrow numbers have washed off and a warden can give me a ticket covered under the interstate wildlife violator compact or some other goofy rule...	Unfortunately, the ABA is charged with managing people. People can be messy to deal with. Requires rules and crap. Sorry, but that's the nature of urban hunts. All of our Rules are a direct result in addressing shortcomings in human behavior.
134		
135	Again...not likely to happen but get rid of earn-a-buck for previously stated reasons, and extend the season into January (even if it's just antlerless and just for metro designations). I'd much rather see an extended antlerless season than unlimited antlerless tags. We didn't see a lot of deer this season, but the height of our sightings/encounters were late season. It would have been great to have another week or two to put some venison in the freezer and I really feel that my odds of doing so were significant if I had more time.	We'll try again
136	seems to run smoothly	
137		
138		
139		
140	Remove the 200ft set back from marked trails. The bicyclists can make more trails, but they need to get used to the idea of seeing hunters in camo and uncased bows using these same trails for access. We can all share the woods even if it means setting up close to their bike trails.	We're discussing the setback issue. We don't have setbacks to the bike trails any longer.



141		
142	Catch up with technology and have the City of Duluth create an electronic map viewer. Have zones, public lands, aerial, and elevation. It's not that hard to do.	It's harder than you think when the City won't give up the GIS layers of the DHA units.
143	-eliminate "unlimited"	Both will be discussed at the next Board meeting
	-hotspots for first antlerless only	
144	Nope. A well oiled machine.	
145	I love the fact you shortened this year's orientation meeting. As a hunter who's seen it 10 times I really appreciated it. Great job Bork!	
146	not really	
147	No suggestions. Keep up the great work.	
148		
149	Open up some new areas to hunt	We feel that most huntable tracts of land are already included in the Hunt. If you know of a spot, please pass that suggestion on to the Board
150		
151		
152	Nope	
153	Keep up the good work. Big thanks to the board for all that they do.	
154		



155

1. Dissolve the ABA

Addressed in Appendix 1

2. Keep the city zones

3. Increase the fee \$ and put a limit on the amount "X" of hunters admitted. First come, first serve basis.

4. Private land only- public land in Duluth has been carved up in the past decade and use of the Hiking, mountain biking, horse, cross country ski, snowmobile, multi-use and Lake Superior hiking trail is on the rise.

5. Signed Landowner permission slip and valid MN DNR deer lisc-good to go!

6. Earn-a-buck

7. Register harvest at a community center.

DONE

The city of Duluth will still gain revenue. UMD can still collect organs. Sportsmen and women can still hunt. Him insta can still enjoy trails and everyone will get more family time and fewer lectures.

156

Being over run by bike trails enough already



Appendix 3. Comments concerning the MNDNR's Metro Designation. Support ranges from 1 (No support) to 10 (Full Support).

Comment No.	Did you support continued Metro Designation for Duluth for this 2016 season, making the Duluth Hunt an unlimited antlerless harvest zone? (1 No Support, 10 Full Support)	Why did you or did you not support the Metro Designation for this past season?
1	2	Not enough deer to merit unlimited harvest.
2	3	
3	1	Not enough deer to support metro designation.
4	1	Not enough deer
5	3	
6	5	
7	1	the designation gives folks a false impression that there are deer running everywhere in the city and that it's an easy hunt. its just not necessary to draw that much attention to the hunt.
8	5	
9	10	We don't need more deer in town.
10	1	There are hardly any deer left.
11	3	
12	4	Too few deer
13	7	
14	5	Because it's a management hunt, therefore, limits need to be higher. Limits need to correspond with deer population / management needs.
15	1	theres no need for it unless you want wipe out the species
16	10	still too many deer in the metro area
17	1	
18	3	



19	1	I hate the Metro designation and the DNR needs to get rid of it NOW! As was stated in this question "as of 18 December, only 3 hunters had harvested more than 5 deer" so its affect on the overall deer harvest is minimal. The other, far more serious consequence of this stupid designation is that it drives a wedge between hunters. I despise the greedy, selfish hunters that are killing high numbers of deer, especially those that kill high numbers of adult does. I killed 3 deer this year and feel like a game hog. DNR, if you are listening, GET RID OF THE METRO DESIGNATION!
20	5	I feel the herd is down and we are now in a maintenances mode
21	3	With fewer deer, all hunters should be limited to 2-3 deer by bow in the City. It will increase the overall harvest by increasing deer sightings and encouraging the rest of us to spend time in the Duluth hunt.
22	1	Management seems to have worked
23	5	
24	1	I think with the current condition and numbers of deer in the city, it should be discontinued in lieu of a set number of antlerless tags to each individual hunter. The city deer have been pounded and to keep it an opportunity for a greater number of hunters, we need to allow the deer to recover.
25	10	Too many deer in the city bringing in predators such as wolves and coyotes. Also, too many car accidents.
26	8	I support it but think the 5 deer would be better
27	3	
28	1	I only disagree with the unlimited designation
29	6	I support it but as a non resident I feel that all hunters in the bow hunt should be granted the intensive harvest tag price. I would arrow a lot more deer if I didn't have to spend 82.50 on each management tag.
30	10	It doesn't matter, look at the stats
31	3	
32	5	
33	8	The goal of the Duluth hunt is to drop the population



34	5	
35	5	I don't care
36	3	I did see some deer but not the high numbers that I had expected with the possibility of unlimited tags. Maybe some of the units could use having the herd thinned out but unit 20B did not seem to have that many deer. I saw about the same number of deer on public land north of Island Lake last hunting season.
37	6	
38	1	The deer herd in Duluth is currently similar to over exploited fisheries; very low numbers of smaller individuals. Yes most of the mature does that I saw this year were 1 1/2 years old.
39	1	We should be in maintenance mode now and antlerless should be limited to two.
40	3	Like to hunt
41	1	
42	1	There is no reason to shoot 9 deer. Let everyone get to experience shooting deer instead of a handful of people taking them all year after year. The numbers don't lie, the deer population is significantly declining. Yes the goal is to reduce the population but this can still be achieved with a max bag limit. Instead of one person shooting 15 deer, 15 individuals can shoot one of these each. I do not think it's right that one person can shoot anything and everything that walks by them, it takes away the fun for everyone else.
43	4	This is a management hunt, so if a hunter has the means of taking multiple deer they shouldn't have to worry about limits
44	4	Private land I hunted, the landowners do not like the deer.
45	6	If people are in a place with lots of deer, I think they should be allowed to take as many as they can/want.
46	5	
47	7	It is nice to have that opportunity if desired.
48	3	I want a limit to keep the hunt going.



49	4	
50	1	There's no need to stack up deer. Take only what you need to feed your family
51	1	not enough deer
52	10	I think it's great
53	1	I am all for population control, but I would like to return the following year and be successful.
54	1	We don't need to wipe out the entire population.
55	9	
56	4	
57	7	I like venison!
58	1	Why do we need to eliminate the deer in Duluth? We need to manage the herd, I'd say the hunt has done a pretty good job of it. Deer sightings and harvest are way down. To the point where hunters are not spending time in the woods due to lack of sightings and shot opps. Keep it in check and you'll keep more hunters engaged.
59	3	I don't think there's a reason for it.
60	10	It's a management hunt so total number of deer harvested is the goal not everyone getting chances.
61	1	Again this year I shot less deer than I could of. I am worried about the population, I don't think we need to eliminate the herd.
62	1	I dont feel it makes any difference so why waist the time in trying to change it
63	5	I'm on the fence about this question. Harvest numbers are going down, most hunters never come close to harvesting 5 deer per year, one or two at most.
64	3	No necessary
65	5	I partially support the metro designation but do not think it is necessary to reach the management goals of the city hunt. My non supportive side favors conservation instead of waste. I worry that the three to four hunters that take 5+ deer do so for non personal consumption EI - give



		them away, feed them to dogs, etc.
66	3	Unlimited is to many deer
67	9	There are too many deer in Duluth. They eat everything and many get hit by cars.
68	6	Because our overall goal is to reduce the number of deer in the City of Duluth.
69	8	the goal is to reduce the herd
70	5	I really have problem either way. My problem lies with theearn a buck requirement.
71	4	
72	6	
73	1	I've been tracking Duluth whitetail population from my perspective of "living in the woods (in town)".....and deer numbers are down.
74	8	its nice to have the choice to kill more deer (if you so choose)
75	5	
76	5	herd needs to be thinned down but next year should only be 4 tags!
77	3	
78	1	Deer densities are to low, This is a lottery draw to hunt many areas so hunters harvesting more deer could have given another hunter an opportunity to kill a deer.
79	1	I think it promotes waste and complete elimination of deer is not my goal. We have chosen to live here for a reason. I also enjoy seeing wildlife in the city.
80	5	Since this hunt is supposed to be an eradication hunt it shouldn't matter what the designation is. The goal of the hunt was to harvest all of the deer in Duluth.
81	5	Very few hunters take more than 2 deer anyway. I don't see how it affects the majority of hunters.



82	2	I did not as I feel those that harvest excessive number of deer negative effect the chance of other bowhunters in their zone.
83	1	Heck, I couldn't even shoot one doe!
84	6	
85	4	
86	1	The purpose of this hunt is to control the deer population, not to eradicate it. The deer population within the city of Duluth is very low, it is to the point that it just needs to be maintained, not extinct. I know many land owners that use enjoy seeing deer roam their properties that did not see one single deer on their property this year. These land owners denied hunting access this year do to the extreme low deer population.
87	10	There are still to many deer in the city limits. To many car accidents, to much damage to plants and gardens.
88	9	
89	5	
90	5	I'm fine either way
91	1	I don't think people of Duluth want the deer completely taking out of city. I have had people not let me hunt their private property solely because they believe too many deer have been taken in last few years
92	1	Shortage of deer already.
93	5	open
94	1	For those who want to shoot more deer there able to with out choosing
95	3	
96	1	
97	1	
98	10	I fully support the management hunt to reduce the deer densities within the City of Duluth.
99	10	For the opportunity to fill a dor tag without using my buck tag.
100	2	Two does is plenty



101	5	Still have dead deer on Grand. However it seems the bucks out-number the does.
102	6	
103	2	
104	5	I am indifferent because I did not have the opportunity to kill that many deer anyway.
105	10	hardly any more deer end up being shot overall. Not everyone shoots more than 5 deer anyway. I am for it because I will shoot and eat ten deer if I get the chance.
106	1	Deer numbers were down going into this seson.
107	4	Because there is no point to shoot more than 4 does a year
108	1	We don't need unlimited tags. We have 375 hunters in the city hunt and half don't even shoot one deer/year. We need to increase the deer population in the City, not many deer left. 2 deer would be fine. Shoot a doe and shoot a buck or doe with the second license. This would create more opportunity for everyone in the Hunt. Nobody needs 5+ deer!
109	5	
110	9	
111	1	
112	1	Nobody needs to shoot that many deer
113	5	I feel 3 Anterless is PLENTY!
114	1	
115	1	Nobody needs to shoot that many deer
116	3	Indifferent.
117	5	I think that given the declining harvest numbers in general and as long as the overall deer population is not negatively impacted, I see no valid reason for removing the unlimited deer tags for Duluth.
118	5	
119	4	
120	2	Some hunters take to many deer.
121	1	if one lucky, well placed hunter shoots 10 does, that's 9 other hunters who may not get their required doe



122	9	Get guys out
123	1	Like to save some deer for the following yrs to come.
124	6	
125	10	I'm a forester and I like my trees, thank you very much.
126	3	
127	5	I would like to shoot extra deer for donating but never got the chance this year. Not sure if I would ever shoot over 5 however.
128	5	It's what the hunt was intended for
129	10	
130	5	I don't care either way.
131	8	
132	7	Support it because in doing so it is consistent with the purpose of having the hunt to reduce the number of deer in the city.
133	3	we don't need more regulation
134	4	The city hunt is our main source of meet so naturally I would prefer the herd be allowed to replenish itself
135	1	<p>Because it's silly. We hunt an area where someone decided to reduce the deer herd so significantly that doe tags are literally unlimited, yet you can't legally harvest a buck until you've registered a doe...and now does are fewer and farther between than ever.</p> <p>"Please help us reduce the deer herd! We'll make it legal to harvest as many deer as you possibly can or want to."</p> <p>"Cool...I'm gonna take this buck standing broadside 20 yards away and be really excited to have the venison and help you out!"</p> <p>"You can't do that."</p> <p>"..."</p>
136	1	too few deer left now
137	1	there are not that many deer left in the Duluth city limits.
138	7	



139	6	
140	6	I thought it would attract hunters to the Duluth hunt merely because it was an unlimited hunt and not necessarily because they are ethical about their hunting methods.
141	5	
142	5	
143	1	<p>It causes an unfair distribution of harvest, and draws negative reactions from other hunters participating in the hunt as well as non-hunters.</p> <p>I think that this *could* have been appropriate maybe 10 years ago when deer densities were extremely high; but that is not where they are now. We have been very effective at reducing deer numbers to a more appropriate level simply by mandating the harvest of first antlerless.</p> <p>Not only is the unlimited number unnecessary and unethical, but it is also ineffective. What you are getting is a redistribution of the harvest of a natural resource to the most greedy, who have fewest regard for others. Many hunters have spent long hours in the woods with little success, while others stack 'em up to show off. This is wrong.</p> <p>The greedy ones are doing all the shooting, but this doesn't mean more deer are getting shot. Ultimately this will lead in ever increasing rates of attrition from the hunt as more hunters are faced with discouragement from greedy hunters, and you will see deer numbers exploding once again.</p> <p>This practice also disproportionately rewards those who are baiting, and commensurately punishes those who are committed to a strict fair chase ethic.</p> <p>Please, DNR - deer are a natural resource, inside and</p>



		outside of the city, and this resource knows no city limits. Please treat them as such and set the limit to something that supports mindful harvest - deer or 3 deer (or even 5) would better achieve the goals of controlling the population and providing fair opportunities, and minimize the potential for negative reactions.
144	6	I really wanted to cull the herd, and fill my freezer, taking deer from multiple areas in the city. DHA, Hot spots.
145	10	Although I love hunting deer in town and the less we shoot the more there'll be (in theory) the point of the hunt is depredation so I believe we shouldn't have a limit.
146	2	don't need to harvest what not taken to eat
147	5	Dont know enough to make a honest veiw.
148	1	
149	10	It doesn't have an impact on many hunters but for those with large families or friends who need meat it's nice to be able to shoot enough deer. That's if you happen to be in an area where there are still high numbers of deer
150	3	
151	5	
152	2	It should have happened earlier
153	1	Statically it probably doesn't make a significant difference in total deer populations in the City. However, it can have a localized effect on deer populations. We are currently in a maintenance portion of the hunt to keep the populations at a reasonable level not extirpate them from portions of the City.
154	5	I really have no preference.
155	1	
156	3	Lack of deer population

