



Results of the 2023 Duluth City Bowhunt

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

February 2024

The Arrowhead Bowhunters Alliance (ABA) placed 322 hunters into the 2023 Duluth City Bowhunt during the Lottery. Three failed to attend mandatory Orientation and were subsequently removed. A total of 319 hunters were allowed to participate in the 2023 Duluth Hunt. A total of 130 of the 319 hunters harvested a total of 176 white-tailed deer (94 antlerless & 82 antlered males) (Table 1).

For the 2023 season, the earn-a-buck requirement was suspended for a second season. In part, this decision was made because hunters reported not seeing many antlerless deer the last few seasons, but still had the desire to harvest venison for their families. Many of these hunters reported that antlers made no difference to them, and they'd be fine with harvesting the first antlered deer to present an ethical shot. Further, the winter of 2022 – 2023 was extremely difficult for the local deer herd, with record snowfall in Duluth lasting well into April. The ABA Board believed that hunter success would likely be lower than pre-2022 levels. Hunter success in 2023 was again low, but slightly higher than the all-time low observed in 2022 (Tables 1 and 2). Harvest for the 2023 season was 0.55 ± 0.08 harvested deer / registered hunter, not significantly different from that observed in the 2022 season ($t = -0.257$, $P = 0.797$) (Table 2). This was the harvest for all registered hunters, including those hunters that failed to harvest any deer. The ABA doesn't know whether failing to harvest a deer in 2023 was the result of not spending much time in the woods, or not even getting into the woods, or not being able to get an ethical shot. Hunters not reporting any harvested deer were removed from the calculations, and the reported harvest for successful hunters is presented in Tables 1 and 2. Harvest for successful hunters was 1.35 ± 0.10 deer, not statistically different from that observed in 2022 ($t = -0.058$, $P = 0.953$) (Tables 1 & 2). Antlerless harvest for the successful hunters averaged 0.72 ± 0.12 , similar to that observed in 2022 ($t = 0.428$, $P = 0.669$) (Tables 1 & 2). Buck harvest was 0.63 ± 0.08 bucks / successful hunter, also not significantly different from that observed in 2022 ($t = 0.657$, $P = 0.512$) (Tables 1 & 2).

The placement of 319 hunters in 2023 (Blue bars in Figure 1), is similar to that observed since the big decline between 2016 and 2017. If anything, there's been a slight increase in the number of participating hunters in the last three seasons (Figure 1). The number of individuals harvesting deer in 2023 was essentially equal to the lowest observed in 2022 (Figure 1). Of the 319 registered hunters, 130 harvested a deer in 2023 (Red line in Figure 1; Figure 2). Total harvest of 176 deer in 2023 was slightly higher than the lowest harvest ever observed in 2022 (Blue bars in Figure 3). Hunters in 2023 harvested antlerless deer at the lowest rate observed, though not statistically significant from that observed in 2022 ($t = -0.128$, $P = 0.898$) (blue & red lines in Figure 3).

Total harvest had been somewhat stable from 2006 thru 2012, between 500 and 600 animals (blue bars in Figure 3). Beginning with the 2013 season, and continuing thru the 2023 season, harvest dropped well below this level (Figure 3). 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 3). In 2015, it dipped below 1.0 for the first time. During the first season of the hunt, more than 92% of participating hunters harvested a deer (Figure 1; Table 1). In 2016, that percentage was below 50%, but rose slightly in 2017 and had remained somewhat stable, between 49% and 62%, until the 2022 and 2023 seasons, when this percentage dropped to approximately 40% (Figure 1; Table 1). While the ABA Board and City Administration anticipated that harvest might decline some after the earn-a-buck regulation was lifted, the harvest of 0.54 and 0.55 deer / hunter was unexpectedly low (Tables 1 & 2; Figure 3).



In line with the stated goals of this management Hunt, and even with the lifting of the earn-a-buck requirement, the 2023 harvest was still dominated by antlerless individuals (Table 1, Figure 4). Of the 176 deer harvested, 94 (53.4%) were antlerless individuals. The breakdown of antlerless was 73 adult does, 6 fawn does, 14 fawn bucks, and one adult male harvested after shedding his antlers (Figure 4).

For the 19 seasons of the Duluth Bowhunt, total harvest by registered bowhunters is 7534 white-tailed deer; of which 6131 were antlerless while 1403 were antlered males (Table 1). Only 18.6% of the harvest has been 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. Figure 5 shows the cumulative harvest of both antlerless and antlered deer for the full 19-year history of the Duluth Hunt. Harvest of antlered males has been near constant, with a slope of 72 antlered males harvested per year ($y=72.095*x - 144427$, $R^2 = 0.9911$, Figure 5). There's been a lot of complaints that the buck population will be decimated with the elimination of the earn-a-buck requirement. The actual data simply doesn't support this claim. Further, the data suggests that the decline in antlerless harvest actually began somewhere around 2013 and didn't decline just because hunters were no longer required to harvest an antlerless deer first (Figure 5).

The Duluth City Council has established 42 Designated Hunting Areas (DHAs) throughout the City of Duluth. Harvest among these DHAs is highly variable (Figure 6). Three DHAs (10C, 16B, & 17D) had the highest harvests in 2023, all over 10 deer. Hunters harvested 8 deer from DHAs 1, 13, and 19C. 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 2023, the ABA lost one of the Hot Spots (Wabasha) due to changes in the neighborhood but added one near the bird-banding facility in Hawk Ridge. Only 11 deer were harvested from Hot Spots (Table 3). In past years, harvest in the Hot Spots made up a significant portion of the antlerless harvest. But in the absence of the earn-a-buck requirement, hunters were not desperate to fulfill this requirement. Thus, interest in Hot Spots was not as high as in previous seasons. Hunters that needed venison were the only ones pursuing opportunities in Hot Spots. Figure 7 shows a map of the City of Duluth with the 42 various DHAs identified, along with the number of deer harvested for each of the DHAs.

When standardized by area, harvest trends (harvest / mile²) continue to remain low compared to the early years. Harvest per square mile (mile²) is presented in a map view of the City of Duluth (Figure 8). Figure 9 shows a consistent decline in harvest / mile² throughout the history of the hunt on a city-wide basis. In 2023, harvest / mile² was only 21.7% of that observed in our first year's harvest, at just 4.2 deer / mi² (Figure 9). Harvest of more than 20 deer harvested / mile² were once common within some of the DHAs (Figure 9, 2006 – 2014 seasons), but these high harvest levels haven't been observed city-wide since, and aren't likely to ever again be observed within Duluth.

Overall, the deer harvested / mile² was low (Figures 8 & 9). During the early years of the hunt, the white-tailed deer density was high, as was hunter success, which was relatively constant at just under 2.0 deer / hunter (blue line, Figure 3). After several seasons of high harvest, our hunters began to have a noticeable effect on the herd, and it, along with hunter success, began a five-year decline during what may be referred to as the "declining years" of the Duluth Hunt. 2023 represents the eleventh consecutive year of the "Maintenance Phase" of the hunt, where the deer herd seems to have stabilized, as has hunter success, at a level at or under 1.0 deer per hunter. Since entering the Maintenance Phase, by all accounts and observations, the deer herd isn't where hunters may like it, but likely where car drivers and gardeners do. Until 2022, harvest had been hovering between 6 – 8 deer / mile² (Figure 9). This year and in 2022, harvest rates have dropped to 4 deer harvested / mi², and continues the steady decline in harvest rate observed since inception of this Hunt (Figure 10).



This is not new information to us. We've stated before that "success" will be redefined as we move from the phase of depressing the deer herd to one of maintaining it at this low level. Bowhunters have never been successful at eliminating a white-tailed deer herd from the landscape in any urban hunt within the United States. Further, Duluth residents likely would not support a complete elimination of the deer herd. Reduction is possible, and Duluth hunters have demonstrated this. From the hunters' perspective, the definition for success needs to be the continued opportunity to participate in this sport in our own backyard. Success from the Duluth community's perspective likely means maintaining the herd at this lower level, which seems to be supported by gardeners, landscape owners, and drivers. Continuing this opportunity provides a service to our community by keeping the herd at current levels. Some hunters have suggested backing off the Hunt for a few years to rebuild the herd and provide improved harvest opportunities. However, as observed 20 years ago through the political process, this level is completely unacceptable to 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 (Figure 10; Appendix 1), it is still significantly higher than the MN Statewide archery success rate, which in 2022 was 20.0% (C. Balzer, MN DNR, personal communication). Clearly, when compared to the past success rates in the city hunt, the success rate is down (Table 1; Figure 10), but is still relatively high compared to the State. Our hunters can be expected to harvest a deer every 1.8 years (ABA Data), as opposed to the statewide average of hunters harvesting 1 deer every 5.0 years (C. Balzer, MNDNR, personal communication). The success of firearms hunters in the 100 series Deer Permit Areas (northern MN) was 22.3% in 2022 (C. Balzer, MNDNR, personal communication). So even compared with local rifle hunters, our Duluth hunters still have a much higher success. 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 convenient 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.

The ABA has been advising local politicians and landowners to adjust their expectations and redefine the definition of "success" for this urban hunt. In 2005, "success" was defined by City Administration as our hunters "punching all five tags". Politicians and landowners defined "success" as a harvest of 500 or more deer during those early seasons. Politicians and administrators sought to increase hunter participation and recruitment from one year to the next in order to increase harvest and to meet their definition of "success". The data clearly indicates those days are in the 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, and far lower than what can sustain a harvest exceeding 500 deer per season. Hindsight demonstrates that the harvest of 500 deer per year was clearly not sustainable. If the goals early on in this Hunt Program were to gain control over the white-tailed deer herd and lower the deer density within Duluth as quickly as possible, then our Duluth hunters were highly successful.

The ABA has been preaching to our bowhunters for years to adjust their expectations in the future, especially for those hunters that have participated for the last 19 years. Gone are the days of seeing a dozen deer every evening in the woods. Early in the Hunt, if a hunter didn't see a dozen deer every day in the stand, they would move their stand to a "better" area. While this Hunt Program continues, those population levels will never be seen again. This year, if a hunter saw a dozen deer in any location all season long, it was a better spot than many others. Hunters that don't have the time or patience to wait for just one or two harvest opportunities in a season are encouraged to hunt elsewhere. What the ABA and law enforcement can't tolerate are hunters increasing harvest opportunities at the expense of ethics and the law. Examples include choosing to ignore the DHA boundaries, hunting illegally in areas not approved by the Duluth City Council or the Duluth Police Department, and hunting



illegally from the ground, all of which occurred during the 2023 season. 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.

Hunters can always exercise self-discipline and self-regulation. Just because the State and City say you can harvest three deer doesn't mean you have to do so. No one will think less of you as a hunter if you only harvest one deer. If you have a large family and need the three deer, that's also no one else's business. But for every female deer that is allowed to walk in year-1, there could be as many as three deer walking in the woods in year-2. Suspending the earn-a-buck requirement again for a third year will go a long way towards rebalancing this herd, and getting the male:female sex ratio back into proper balance. Two seasons of this requirement being lifted will not accomplish this goal, especially after last year's record-deep snows and harsh winter (Winter Severity Index (WSI) was 137, C. Balzer, MNDNR, personal communication). A winter is considered severe if the WSI is greater than 120 (C. Balzer, MNDNR, personal communication). It may take several seasons with very low antlerless harvest rates to get the sex ratio back into proper balance. This issue will be discussed by the ABA Board and the Deer Review Committee as we press towards the 2024 Hunt and regulations for the Hunt.

If the lower deer numbers currently observed in Duluth are not acceptable to individual hunters, the ABA would ask that they pull out a State map and find other areas that may have real or perceived higher deer densities than what is currently observed within Duluth. That said, we already have several hunters who have reported that they believe their chances of harvesting a white-tailed deer are better outside of the City (Appendix 1). Hunters are more than welcome to hunt elsewhere for increased shot opportunities. Many hunters have stated that there are no longer any "trophy" bucks remaining in the City, or that their chances of harvesting a "trophy" buck are better elsewhere. While this may or may not be the case, the ABA and City of Duluth aren't in the business of providing "trophy" buck opportunities to the participants. We are here to provide bowhunting opportunities. The ABA continues to maintain that ANY white-tailed deer harvested ethically with archery equipment is a real "trophy". The ABA and City of Duluth will not be managing the Duluth white-tailed deer herd for "trophy" potential, including antler point restrictions, QDM policies (Quality Deer Management), or limiting buck harvest to hunters who have "proven" their merit by being involved in the Hunt for a certain number of years or having harvested a certain number of antlerless deer, as has been suggested (Appendices 1 & 3).



Table 1. Summary Statistics for the Duluth City Bowhunt through the 2023 Hunt. 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 or family. 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 / Hunter	Total Harvest / Successful Hunter	Buck Harvest / Hunter	Buck Harvest / Successful Hunter	Antlerless Harvest / Hunter	Antlerless Harvest / Successful Hunter	% Donated	% Hunters Harvesting a Deer	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	1.38	1.50		92.2%			92.2%
2006	252	196	564	485	79	2.24	2.88	0.31	0.40	1.92	2.47		77.8%	149	59.1%	77.8%
2007	315	252	568	477	91	1.80	2.25	0.29	0.36	1.51	1.89		80.0%	155	49.2%	80.0%
2008	289	220	533	458	75	1.84	2.42	0.26	0.34	1.58	2.08		76.1%	141	48.8%	76.1%
2009	315	247	588	494	94	1.87	2.38	0.30	0.38	1.57	2.00	51.7%	78.4%	153	48.6%	78.4%
2010	339	272	604	515	89	1.78	2.22	0.26	0.33	1.52	1.89	61.8%	80.2%	159	46.9%	80.2%
2011	377	268	587	476	111	1.56	2.19	0.29	0.41	1.26	1.78	57.9%	71.1%	168	44.6%	71.1%
2012	359	274	574	483	91	1.60	2.09	0.25	0.33	1.35	1.76	53.7%	76.3%	162	45.1%	76.3%
2013	391	231	399	346	53	1.02	1.73	0.14	0.23	0.88	1.50	58.3%	59.1%	98	25.1%	59.1%
2014	355	208	451	375	76	1.27	2.17	0.21	0.37	1.06	1.80	51.2%	58.6%	107	30.1%	58.6%
2015	375	209	371	309	62	0.99	1.79	0.16	0.30	0.82	1.48	47.7%	55.7%	102	27.2%	55.7%
2016	352	174	281	235	46	0.80	2.02	0.13	0.26	0.67	1.35	50.4%	49.4%	70	19.9%	49.4%
2017	296	160	290	239	51	0.98	1.81	0.17	0.32	0.81	1.85	52.8%	54.1%	74	25.0%	54.1%
2018	285	157	240	182	58	0.84	1.53	0.20	0.37	0.64	1.16	53.3%	55.1%	70	24.6%	55.1%
2019	283	151	233	179	54	0.82	1.54	0.23	0.36	0.63	1.19	48.9%	53.4%	70	24.7%	53.4%
2020	305	189	312	228	84	1.02	1.65	0.28	0.44	0.75	1.21	33.0%	62.0%	99	32.5%	62.0%
2021	299	165	264	197	67	0.88	1.60	0.22	0.41	0.66	1.19	39.0%	55.2%	78	26.1%	55.2%
2022	306	121	166	94	72	0.54	1.37	0.24	0.60	0.31	0.78	60.2%	39.5%	33	10.8%	39.5%
2023	319	130	176	94	82	0.55	1.35	0.26	0.63	0.29	0.72	58.5%	40.8%	37	11.6%	40.8%
Mean	316.0	200.1	396.5	322.7	73.8	1.27	1.94	0.24	0.38	1.03	1.56	51.9%	63.9%	106.94	33.3%	63.9%
Min	192	121	166	94	46	0.54	1.35	0.13	0.23	0.29	0.72	33.0%	39.5%	33.00	10.8%	39.5%
Max	391	274	604	515	111	2.24	2.88	0.35	0.63	1.92	2.47	61.8%	92.2%	168.00	59.1%	92.2%
Sum			7534	6131	1403											



Table 2. Hunter harvest statistics for the 2023 Duluth Bowhunt, along with 2020, 2021, and 2022 statistics and the 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. Note that in 2022 and 2023, the earn-a-buck requirement was temporarily suspended.

	2023	2022	2021	2020	Long-term Duluth Average
Total Harvest/Hunter	0.55 ± 0.08	0.54 ± 0.08	0.88 ± 0.11	1.02 ± 0.11	1.27 ± 0.24
Buck Harvest / Hunter	$0.26 \pm .05$	$0.24 \pm .05$	$0.22 \pm .05$	0.28 ± 0.05	0.24 ± 0.03
Antlerless Harvest / Hunter	0.29 ± 0.06	0.30 ± 0.07	0.66 ± 0.08	0.75 ± 0.08	1.03 ± 0.23
Harvest / Successful Hunter	1.35 ± 0.11	1.36 ± 0.11	1.60 ± 0.11	1.65 ± 0.10	1.94 ± 0.19
Buck Harvest / Successful Hunter	0.63 ± 0.08	0.59 ± 0.09	0.41 ± 0.08	0.44 ± 0.07	0.38 ± 0.05
Antlerless Harvest / Successful Hunter	0.72 ± 0.12	0.78 ± 0.14	1.19 ± 0.08	1.21 ± 0.08	1.03 ± 0.23

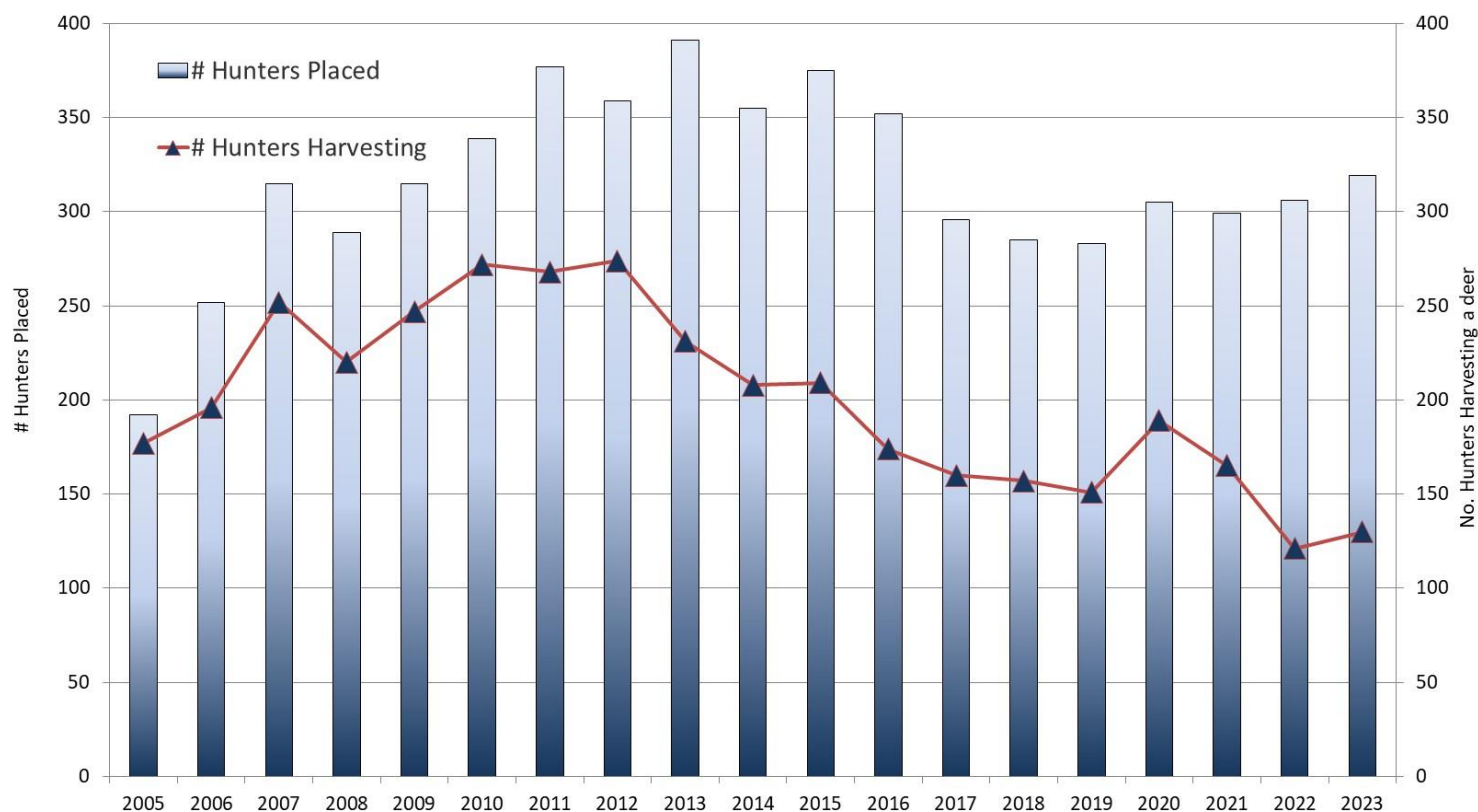


Figure 1. Number of hunters placed (left axis) and the number of those hunters harvesting deer (right axis) in each season of the Duluth City Bowhunt.



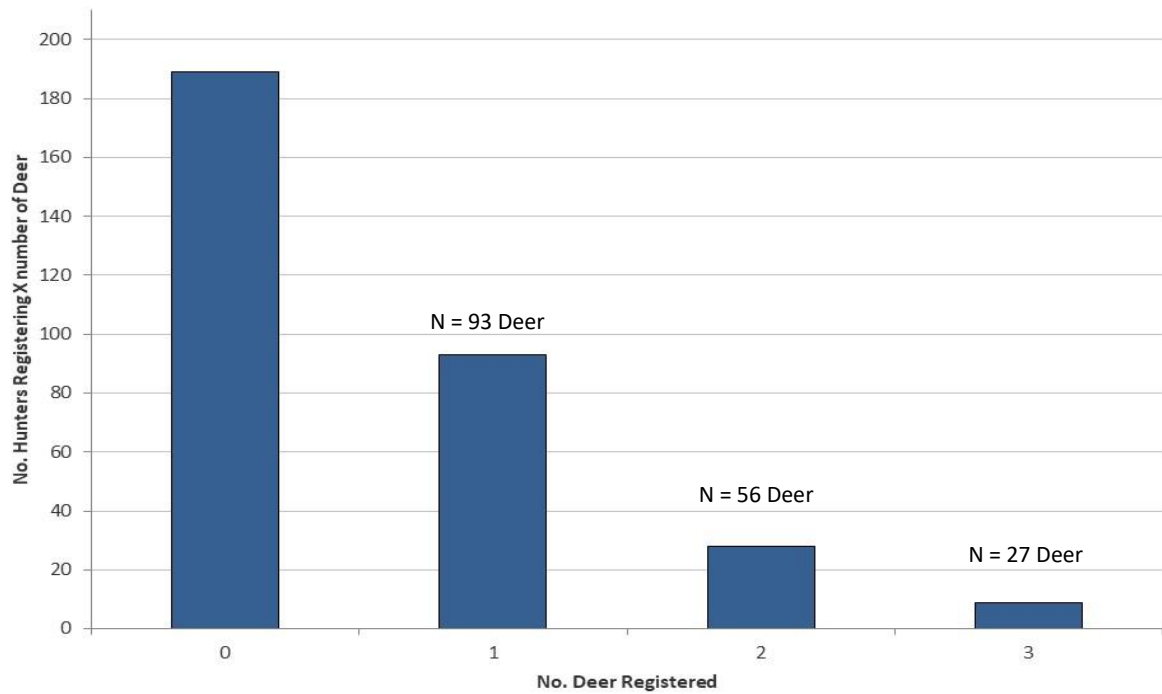


Figure 2. The number of Duluth City bowhunters and the number of deer harvested for the 2023 Duluth City Bowhunt ($N = 319$ hunters). Numbers above indicate the number of deer harvested by each group, e.g. 9 hunters harvested 3 deer for a total of 27 deer. 189 hunters failed to harvest a deer in 2023 (0 on x-axis).

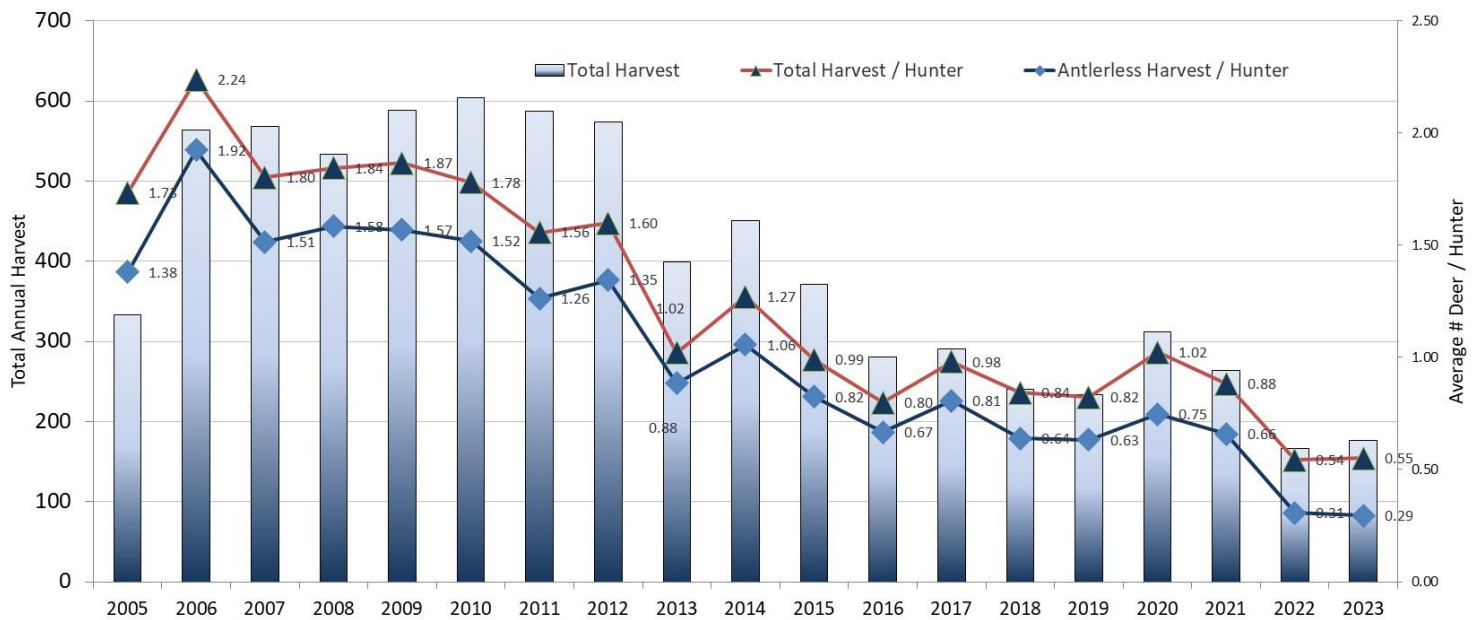


Figure 3. Total harvest (blue bars), average harvest per hunter (triangles and red line), and average antlerless per hunter (blue diamonds) for the 19 seasons of the Duluth City Bowhunt.



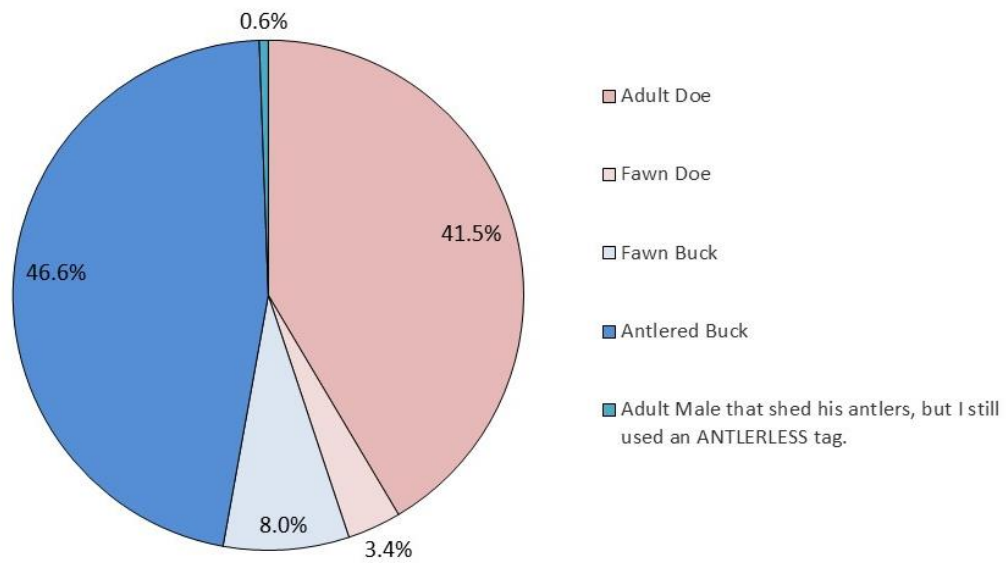


Figure 4. Breakdown of harvest by deer type for the 2023 Duluth Bowhunt.

Table 3. Harvest within Hot Spots during the 2023 Duluth City Bowhunt. Harvest within Hot Spots is limited to antlerless only.

Description	No. Antlerless Harvested
Lakeside	2
Little Ely	7
Sneve	2
TOTAL	11

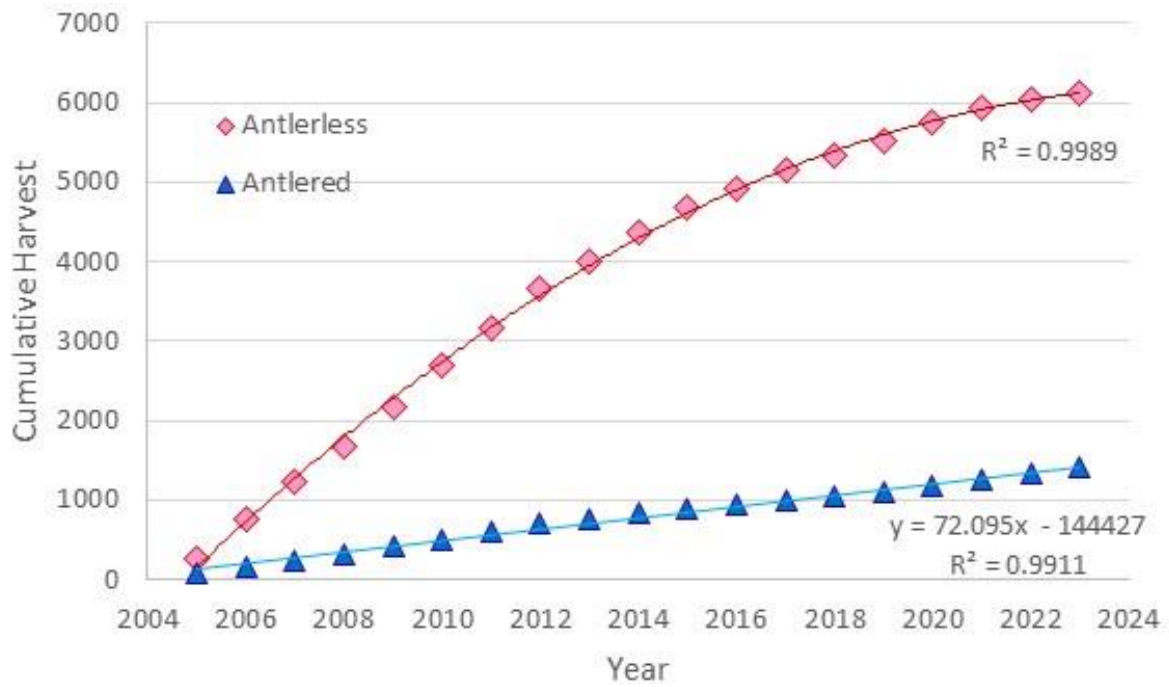


Figure 5. Cumulative harvest of antlerless and antlered white-tailed deer in the City of Duluth, MN, for the full 19 years of the Duluth Hunt Program.

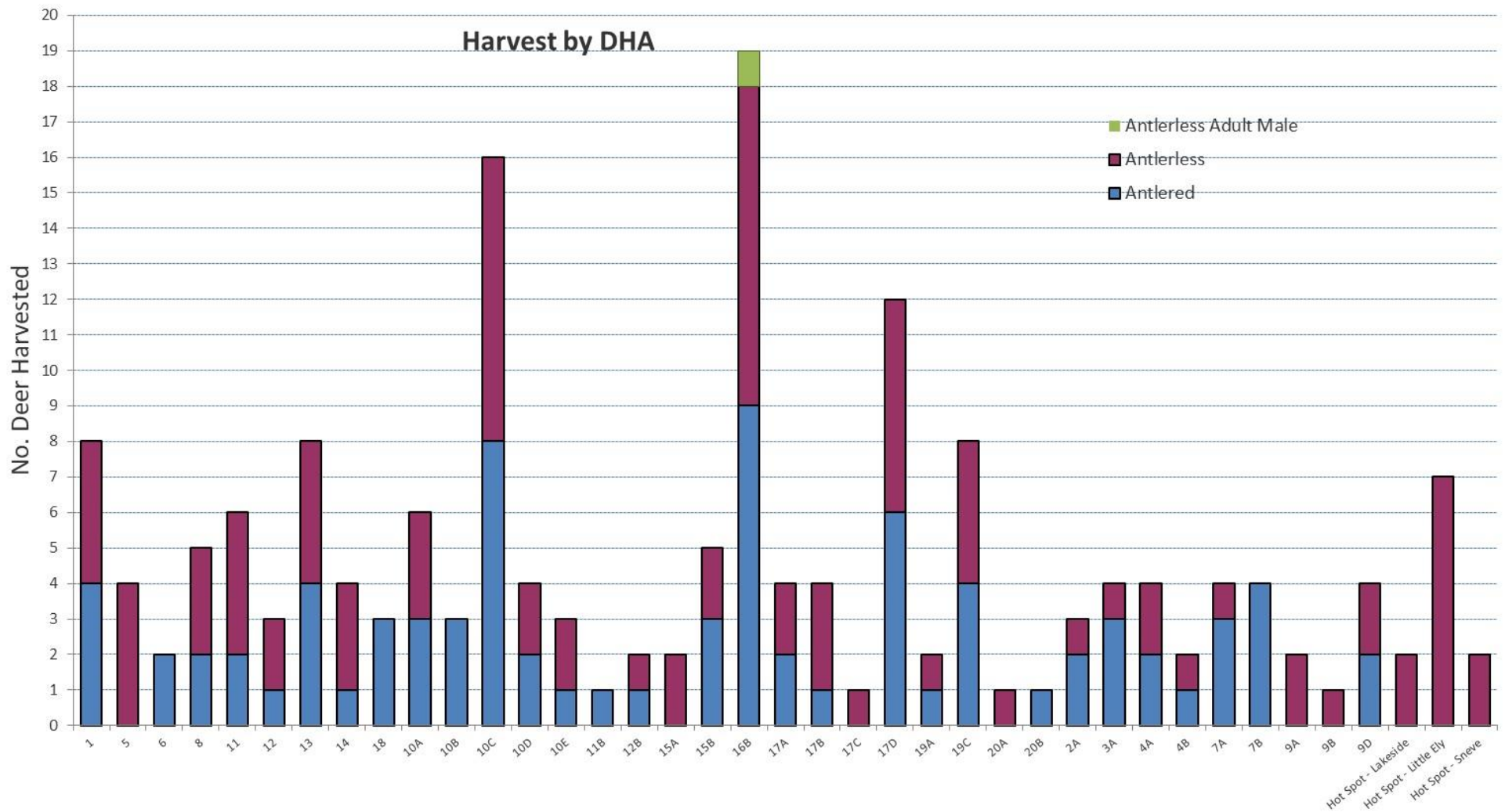


Figure 6. Number of deer harvested by deer type (Antlerless or Antlered) within each of the 42 designated hunting areas (DHAs) within the City of Duluth during the 2023 bow hunt.





The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within the data provided or for any damages in connection with the use of this information contained within.

City of Duluth Deer Harvest by Hunting Zones 2023

0 1.25 2.5 5 Miles

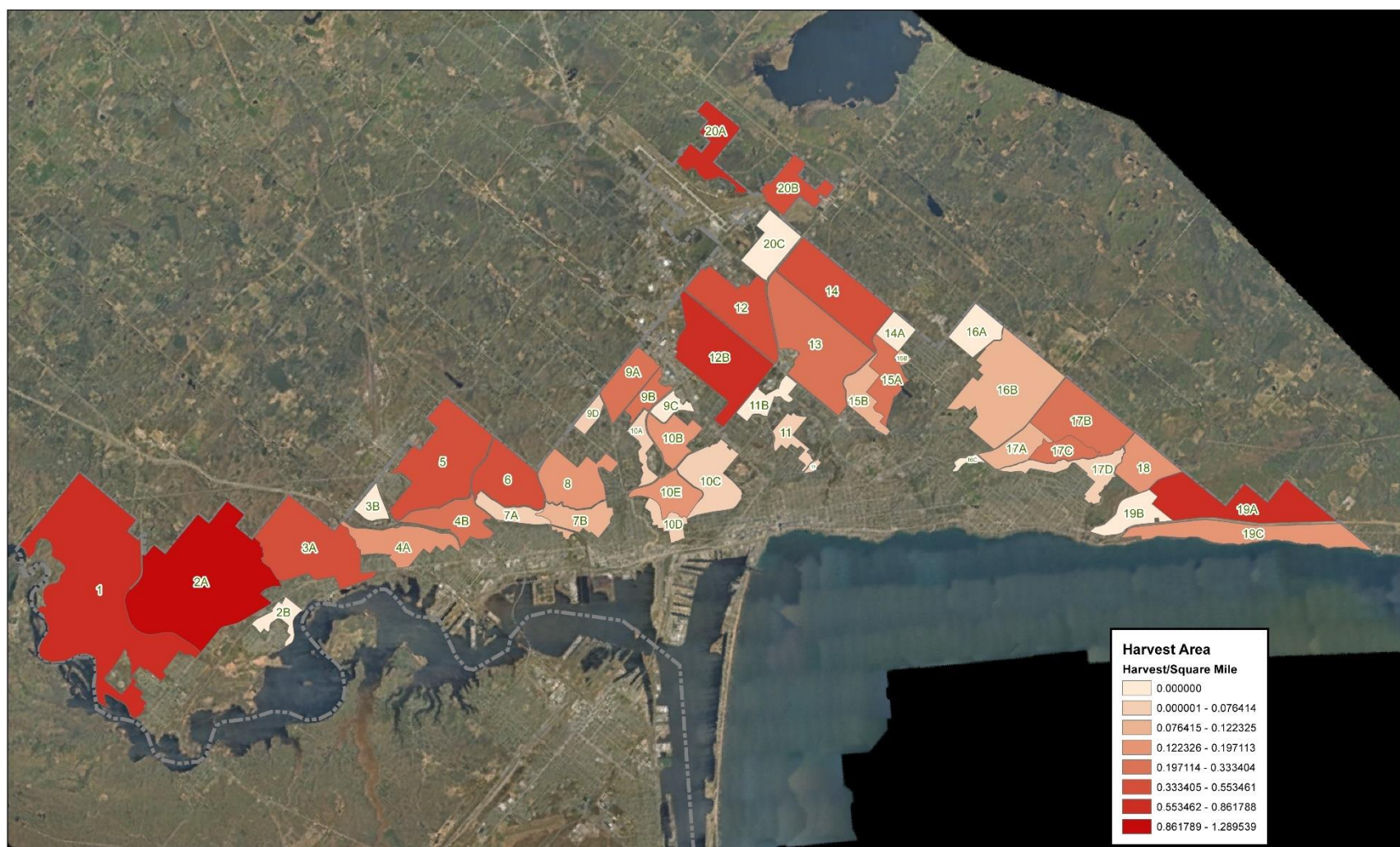


Imagery date: 2019
Printed: 1/12/2024



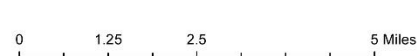
Figure 7. Map of the City of Duluth, along with harvest (number of deer) within each of the 42 Designated Hunting Areas during the 2023 Duluth City Bowhunt. DHAs are labelled on the map. The color of the DHA indicates the number of deer harvested as identified in the legend at the right. Map courtesy of City of Duluth GIS Department.





The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within the data provided or for any damages in connection with the use of this information contained within.

City of Duluth Deer Harvest by Hunting Zones 2023



Imagery date: 2019
Printed: 1/12/2024



Figure 8. Map of the City of Duluth, along with harvest per mile² within each of the 42 Designated Hunting Areas during the 2023 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. Map courtesy of City of Duluth GIS Department.



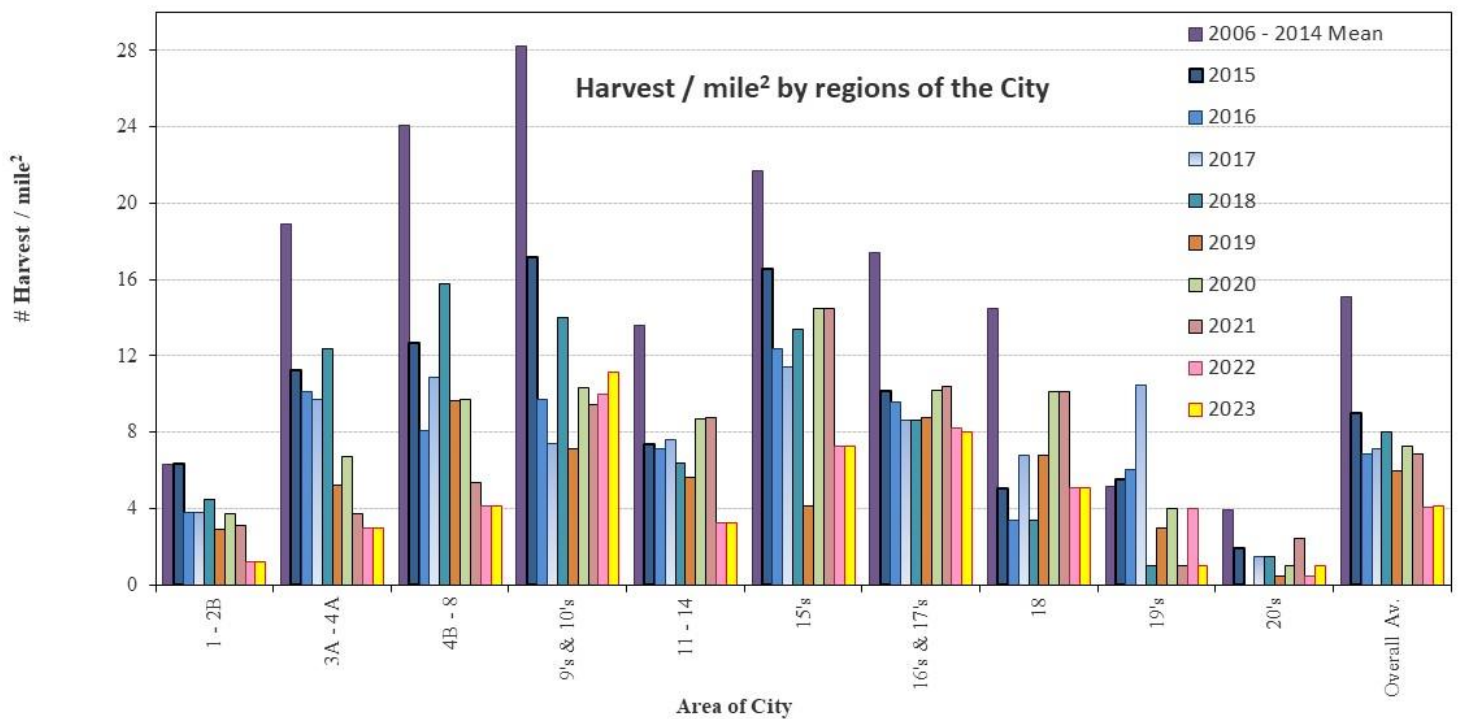


Figure 9. Harvest / mile² in various areas of the City of Duluth. Data presented is for the 2015 – 2023 seasons, and the long-term average (mean).

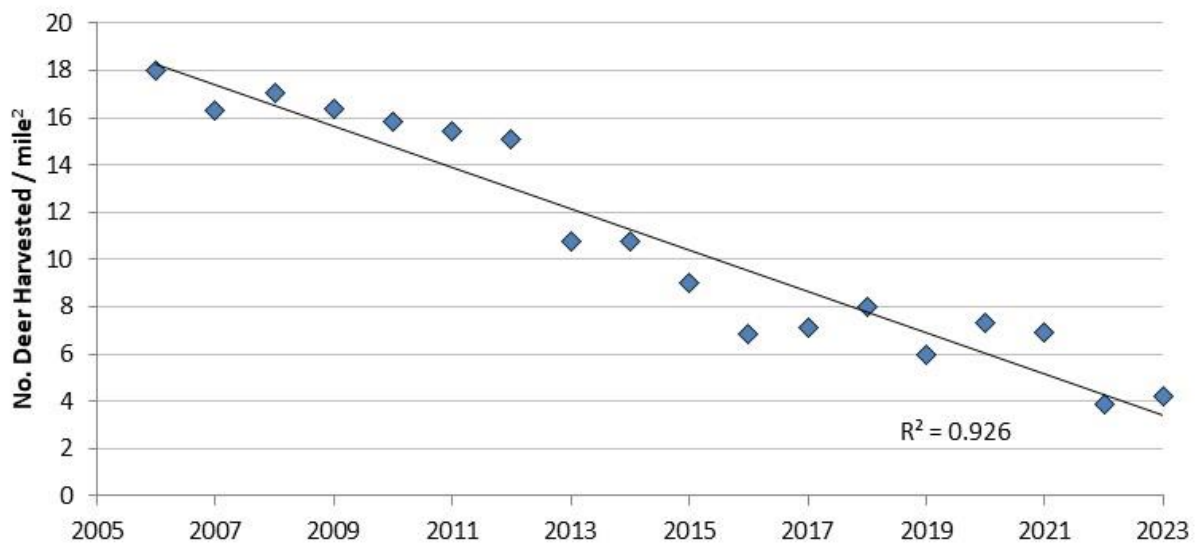


Figure 10. Overall harvest / mile² in the City of Duluth. Data presented is for the 2006 – 2023 seasons. DHAs were changed after the 2005 inaugural season and have stayed consistent since.

General Hunt details for the 2023 season

Private Lands

Hunters may access and hunt on any private property, with permission, within any of the DHAs. Harvest from private lands accounted for 48.8% of the 2023 harvest (Figure 11). A general misconception among some of the hunters, especially new ones, is that one needs access to private land to harvest deer, and specifically antlered males. Figure 12 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. This 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.

Not all DHAs are created equally in terms of the portion of public and private lands within their boundaries. Figure 13 breaks down harvest within the various DHAs by public and private. Clearly DHAs such as DHAs 1, 2A, 3A, 10D, and 19C are dominated by City-owned public lands.

Hot Spots

Hot spots represent a unique portion of the private land harvest. Hot spots are private parcels OUTSIDE of the DHAs established by the Duluth City Council. What makes these areas unique is that private citizens petition the ABA to hunt on their property. Essentially, these are areas where the main complaint is *“Why not in my backyard? We still have deer problems.”* For the fourth consecutive season, hot spots represented a significant portion of the harvest (Table 3; Figure 13), though not as high as in previous seasons for reasons previously discussed.

The ABA does NOT initiate set-up of hot spots. The ABA does not go out and look for these either. We have more than enough work to find time to query the city’s residents and locate additional hunting spots for our hunters. When landowners approach the ABA requesting their property be set up as a hot spot, the ABA will only proceed if, and only if, the property owner has discussed with, and received support from, their neighbors. The ABA will NEVER push our way into neighborhoods without the support of the residents.

If you know of landowners that still are experiencing deer problems, please have them contact the ABA at the official email address (infoduluthhunt@gmail.com). The ABA will work with the landowners and determine if this is a possibility for their land to be included in this Program. Landowners and our hunters need to understand that these spots are NOT set up to be private hunting reserves for one or two individuals. The ABA will need to be able to move multiple hunters into and out of the Hot Spots to maximize opportunity and harvest. If this is simply to setup a private hunting spot for you and your friends, please don’t waste out time.

Another criterion unique to Hot Spots is that currently they are open for antlerless harvest only. Many hunters have asked for buck harvest to be allowed, likely due to constant observations of “trophy” individuals at some of these hot spots. The ABA allowed buck harvest for one season, which turned out to be a management nightmare. Hunters panicked that bucks were taken and they weren’t given the opportunity to hunt them first. Basket 6-pointers grew to 200-inch trophies overnight thru social media and the rumor mill. For those reasons, the ABA has recommended to the City that these spots be open to antlerless harvest only. The ABA does not anticipate recommending changes to the policy for the foreseeable future. We trust our hunters and participating homeowners, understand the reasons for this policy.



Public vs. Private Land Harvest
Total No. Deer

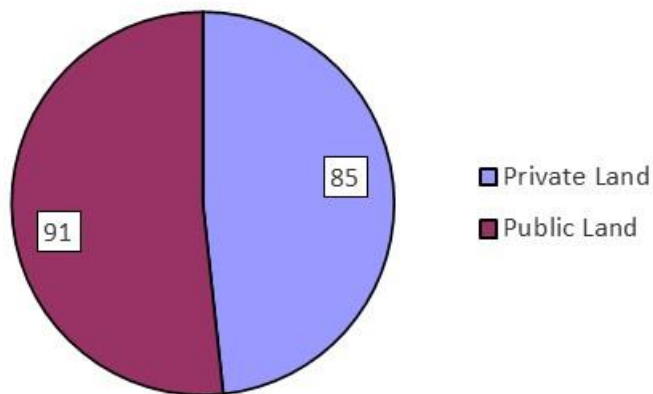


Figure 11. Harvest on public and private lands within the designated hunting areas during the 2023 Duluth City Bowhunt.

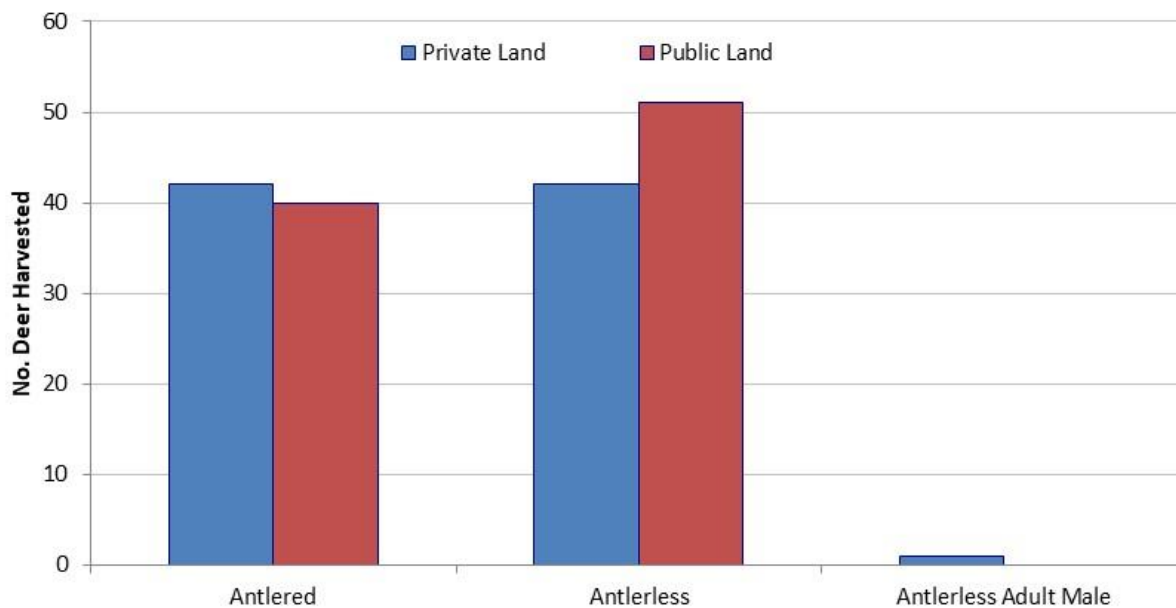


Figure 12. Harvest by deer type on public and private lands within the designated hunting areas during the 2023 Duluth City Bowhunt.

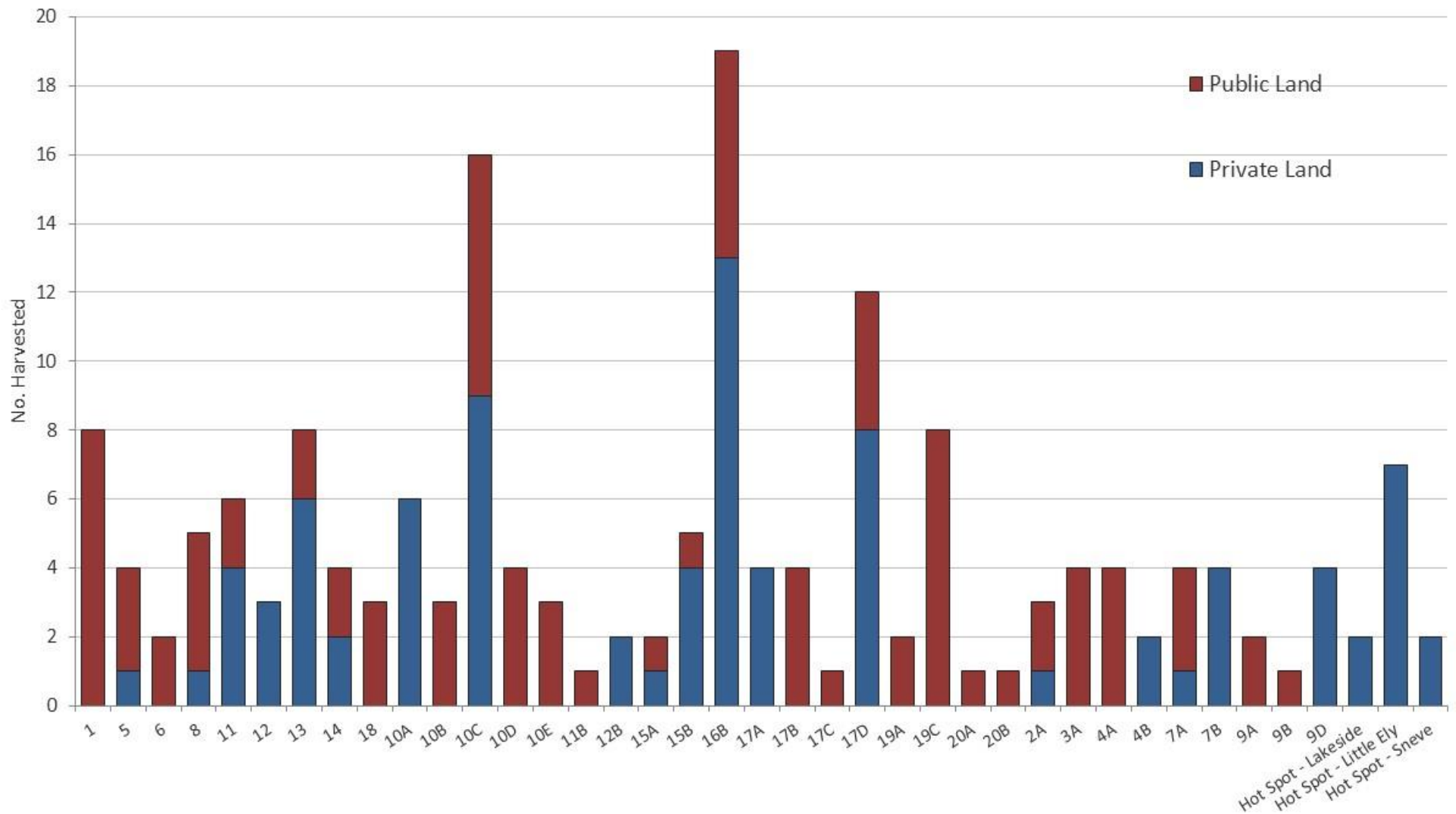


Figure 13. Harvest by Designated Hunting Area on public and private lands during the 2023 Duluth City Bowhunt.



Hearts:

Again in 2023, Duluth hunters were harassed relentlessly into saving hearts 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 the arteries and capillaries than do formalin-preserved ones. In 2023, 59% of our hunters indicated that they participated in this opportunity (Figure 14), well above participation rates of recent years. This increase in participation may, in part, be due to the generosity of one of our hunters. One of the hunters personally bought and donated prizes to raffle off to hunters who donated hearts. The ABA Board wishes to personally thank this generous individual. Without his generosity, we may not have collected as many hearts as we did in 2023.

This program is a wonderful opportunity for hunters to give back to the community. After near constant badgering to save hearts, the ABA finds it hard to believe that 16 hunters “forgot” to save hearts (Figure 14). The ABA believes that these “forgot’s” should really be “no, I don’t intend to bother with this, it’s just not important to me”. The ABA Board struggles with how to make this Program relevant to our hunters, and to encourage continued / further participation. While raffle prizes no doubt help, hunters must want to participate in the Program. The ABA is immensely grateful to those hunters that went out of their way to collect, store, and ultimately deliver these hearts. The Board would encourage ALL hunters to participate in the future. This is especially important given that harvest is likely to continue to decline, meaning there will be fewer hearts available, and UMD needs more than 75 hearts each fall. Every heart will be important in 2024. And to be clear, hearts do not need

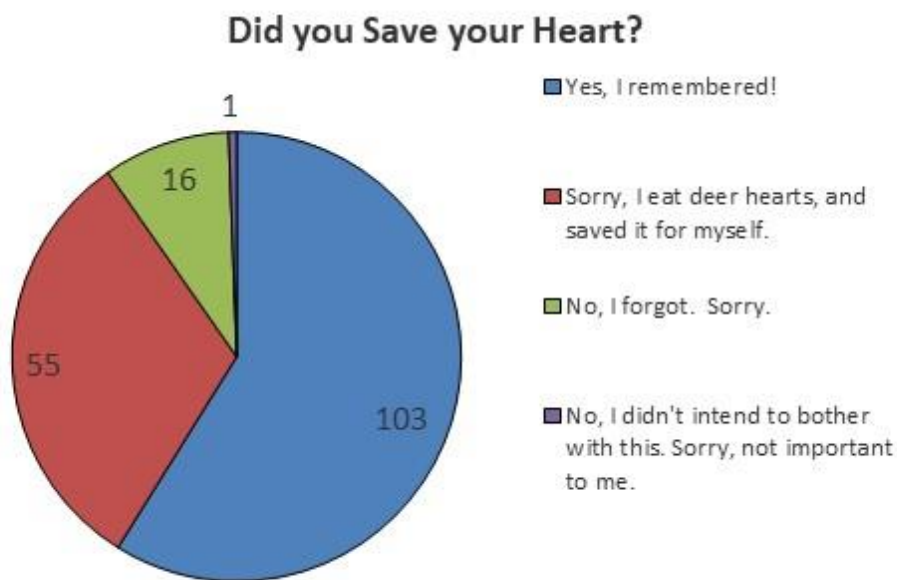


Figure 14. Responses from hunters who were asked to save deer hearts for the UMD-Medical School during the 2023 Duluth City Bowhunt.

to be solely collected from Duluth nor do they need to be white-tailed deer hearts. UMD will take hearts from bear, moose, elk, antelope, mule and white-tailed deer, and any other large mammal legally harvested outside of the City.

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 observational reports. This year, survey participation was not as high as in other years. 161 of the 319 participating hunters (50.5%) took part in the survey. By comparison, survey response rate was 74.4% in 2020. Our 2023 survey respondents were responsible for a reported 59.4% of the harvest, suggesting that if hunters were successful this season, they were perhaps slightly 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. All comments will be shared with the City (Appendix 1).

Response rate was different between returning hunters (46.7%) and new hunters (60.9%). 119 returning hunters and 42 new hunters filled in this survey. Of these hunters, 91.9% reported that they actually hunted in 2023 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 (91.3%) will likely apply for the 2024 Hunt. Twelve individuals indicated that they were still undecided as to whether they will apply in 2024. Three hunters indicated that they would not be applying due to too many hoops, regulations, and too few deer. Some of the reasons cited for not planning to participate in 2024 are included in Appendix 2.

Survey respondents reported harvesting 104 of the 176 deer. An additional 17 deer were reported as being wounded, with 6 of these deer reported as being “known to have survived”. This gives a reported wounding rate of 14.0% total, and 9.1% if the presumed surviving deer are removed from the analysis. Given the number of reported deer being wounded this year, the ABA suspects this estimate is likely low, and perhaps individuals who wounded deer either failed to report these deer or simply opted to not fill in the Year End Survey.

Earn-A-Buck Requirement:

In 2021, while the ABA did not ask survey respondents to comment about earn-a-buck regulations, many did offer up suggestions in the comments portion of the survey. These comments largely demonstrated our hunters’ support for being allowed to put food into the freezer before a date too late to be useful, e.g., after Thanksgiving.

In 2022, the ABA and the City of Duluth suspended the earn-a-buck requirement for the entire season to see how this would impact harvest. After a record snowfall in 2022, the City suspended the earn-a-buck requirement again for 2023. 18.6% of the hunters took advantage of this suspension and harvested a buck prior to harvesting an antlerless deer (Figure 15). Of the 82 bucks harvested in 2023, 54 (65.8%) were harvested before harvesting an antlerless. This is down from the 79.7% that did so in 2022. Of the 54 hunters that first harvested a buck, five reported that they went on to harvest an antlerless afterwards (Figure 16), however the actual data suggests than only four did so. 50 of our 319 hunters only harvested a buck during the 2023 Duluth Hunt (01 hunters in Figure 17).



Our hunters were asked for their opinion on the earn-a-buck requirement for the future. The majority (66.5%) of the survey respondents believed a third year with no earn-a-buck would be preferred (Figure 19). A minority of respondents (1.9%) would like to see this requirement go back to the original regulation, which was for earn-a-buck for the entire season. 14.2% would like to see the season start off with earn-a-buck, but have this requirement expire either at Thanksgiving (6.8%) or even earlier than Thanksgiving (1.9%) (Figure 19). Survey respondents were asked to provide reasons for their responses, which are all included in Appendix 3.

Those respondents that wanted to see a third year of no earn-a-buck requirement were in the majority, and largely wanted the opportunity to harvest whatever presented an ethical shot. Some believed that 2022's tough winter was hard on the population, and another year of lower harvest would help the herd. Most reported just not seeing enough antlerless to justify the requirement (Appendix 3).

Survey respondents were asked if they intentionally passed on an antlerless during the 2023 Hunt (Figure 20). The majority of survey respondents (36.5%) reported that they never had a shot at an antlerless, and thus never passed on one. 9.4% of hunters reported that they didn't want to orphan fawns by shooting the adult doe. 11.6% of hunters passed on an antlerless doe because they feel there should be more breeder does in the population. Other reasons for not harvesting an antlerless include wanting to use breeder does as natural "bait" for bucks (17.1%), and there's not enough meat on a fawn to justify burning a tag on one (5.0%) (Figure 20).

Survey respondents were asked about the number of deer they observed in 2023 relative to what they observed in 2022. Respondents that identified as "new" hunters were removed from this analysis. Responses could range from 1 (much less deer observed relative to last year) to 7 (much more deer observed). A value of 4 was defined as seeing the same number of deer this year as last. Respondents reported seeing much less antlerless (2.6 ± 0.2) this year (Figure 21, top panel). They also reported seeing less antlered deer this year (3.0 ± 0.2) (Figure 21, middle panel). They reported seeing slightly less total number of deer this year (3.1 ± 0.2).

2023 was the second year of suspending this earn-a-buck requirement. Many of our hunters support this as an opportunity to put meat into their freezers, given that they are just not seeing enough deer to justify the requirement (Figure 21; Appendix 1). One of the main complaints the ABA has received from our participants is that this Hunt has turned into a buck hunt thru the elimination of this earn-a-buck requirement, and that ALL of the "trophy bucks" would be removed from the Duluth population. This concern appears to be unfounded based on our data. Surprisingly, buck harvest has not increased significantly over the last two seasons (Figures 5 & 18; Table 1). Even with 65.8% of the bucks being harvested before an antlerless, the overall buck harvest is still exactly what it has been since inception of the Hunt (Figure 18). The regression slope of this data is -0.0055, which for our purposes is essentially no slope and no change in buck harvest rate since the first year of this Hunt. However, it needs to be pointed out that the negative value on the slope of this regression line suggests that the harvest of adult males may actually be trending down. The number of bucks / hunter harvested in 2023 (0.26 bucks / hunter) is actually lower than it was in 2020 (0.28), a year with the earn-a-buck requirement (Table 1; Figure 18). The highest buck harvest was observed in the first season at 0.35 bucks harvested / hunter (Table 1).

The ABA and City Administration expected the antlered buck harvest to be a lot higher without the earn-a-buck requirement than what was observed. The hope was that more bucks would be harvested to take some of the pressure off the adult doe portion of the population, and to get the buck to doe ratio back to a healthy balance. While we expected to see the exploitation on the antlerless portion of the population drop significantly, the data suggests that the antlerless harvest is tracking a trend that started six or seven years ago (Figure 5). Further, a few recent harsh winters have likely contributed to poor fawn production. Even with two years of not targeting



antlerless individuals, hunters still report seeing fewer deer (Figure 21). Thus, the ABA will recommend to the Deer Review Committee that a third year of suspending the earn-a-buck requirement would be appropriate.

Hunting Demographics

Survey respondents were asked several questions regarding their hunting during the 2023 season. Some of these questions were intended to find reasons for the low deer harvest in 2023. Hunters were asked where they hunted within Duluth. Most of our hunters (51.6%) reported spending the majority of their hunting time within the DHA they were assigned during the Lottery process (Figure 22). Our hunters were then asked how much they actually hunted within Duluth. Figure 23 shows the number of times our new and returning hunters participated in 2023. New hunters participated an average of 12.8 ± 4.2 days while returning hunters participated 18.0 ± 2.6 days. Returning hunters hunted significantly more number of days than did reporting new hunters ($P = 0.0379$).

When asked about participation in the other deer seasons within MN, 55.3% of survey respondents reported only bowhunting in 2023 (Table 4). Only 36% of our hunters reported participating in the firearms season, while a smaller percentage participated in the muzzleloader season (Table 4). Of those participating in the firearms season, 10% of respondents reported harvesting a buck during the firearms season (Table 5). When asked why they hunted outside of Duluth, the most common answer was the family hunting camp (Table 6). Another common reason for hunting elsewhere was a perceived lack of deer in Duluth (Table 6; Figure 21).

Comments from the Masses:

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

“Do you have any ideas or suggestions for improving the Hunt in 2024?”

As expected, the responses were all over the place. Many comments were useful. Several were obviously held by a small minority of individuals. But all comments are included in Appendix 1

A brief summary of the key comments follows:

- 1) Too few deer left in the City.
- 2) Earn-a-buck. Many folks want to see this requirement return, while many others liked not having it.
- 3) Coyotes. This seemed to be a popular complaint this season, with requests to hunt them.
- 4) Positive Feedback. More than in years past, many of our hunters seem pleased with the Hunt.



Did you take advantage of the suspension of the earn-a-buck requirement?

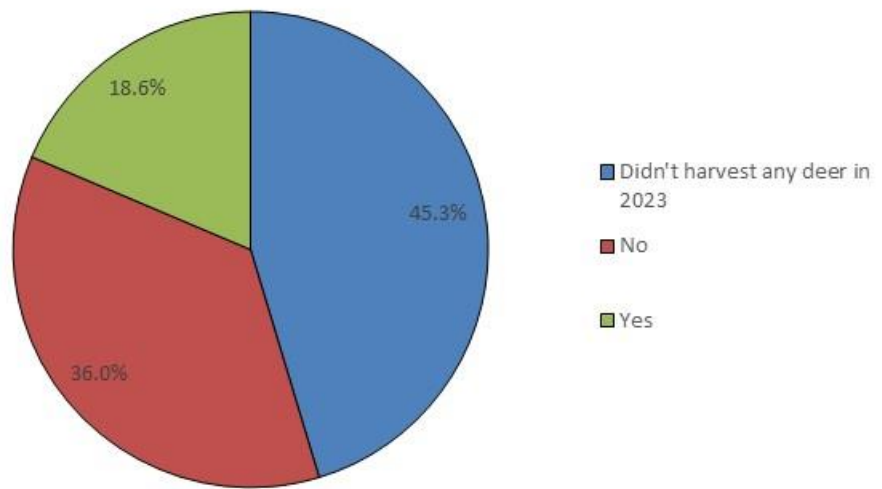


Figure 15. Hunters' responses in the Year End survey on whether they took advantage of the earn-a-buck suspension by harvesting an adult male deer prior to harvesting an antlerless deer in Duluth in 2023.

Did you harvest an antlerless after harvesting a buck?

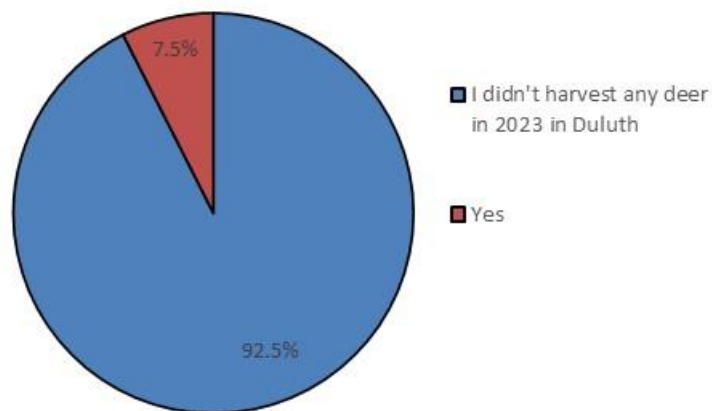


Figure 16. Hunters' responses in the Year End survey on whether they harvested an antlerless deer after first harvesting an antlered adult male in Duluth in 2023.

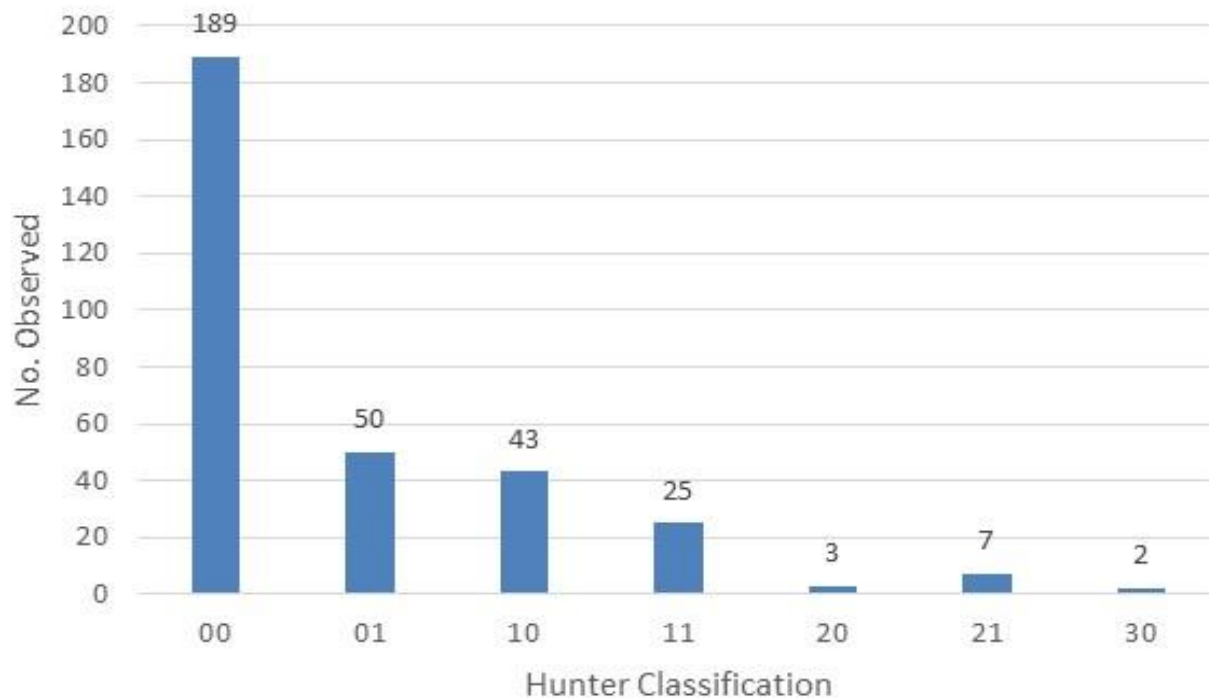


Figure 17. Hunter classification for the 2023 Duluth Urban Bow Hunt. Classification represents the number of antlerless deer harvested followed by the number of antlered males harvested. Thus, 00 represents the number of hunters that failed to harvest any deer within Duluth in 2023. 01 represents the number of hunters harvesting zero antlerless deer and one antlered male. 10 represents the number of hunters harvesting one antlerless deer and no antlered one.

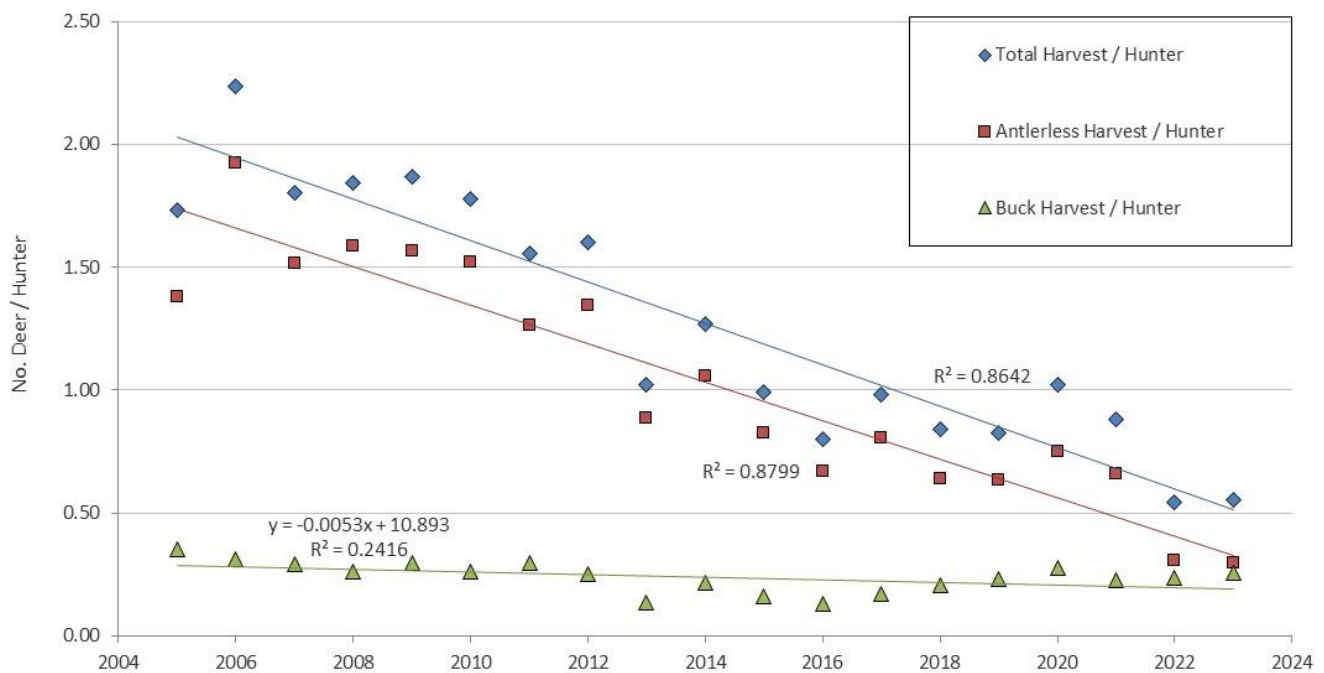


Figure 18. Harvest / hunter statistics for the 19 years of the Duluth City Bowhunt, separated by all deer, antlerless deer, and antlered males.



Suggestions for 2024

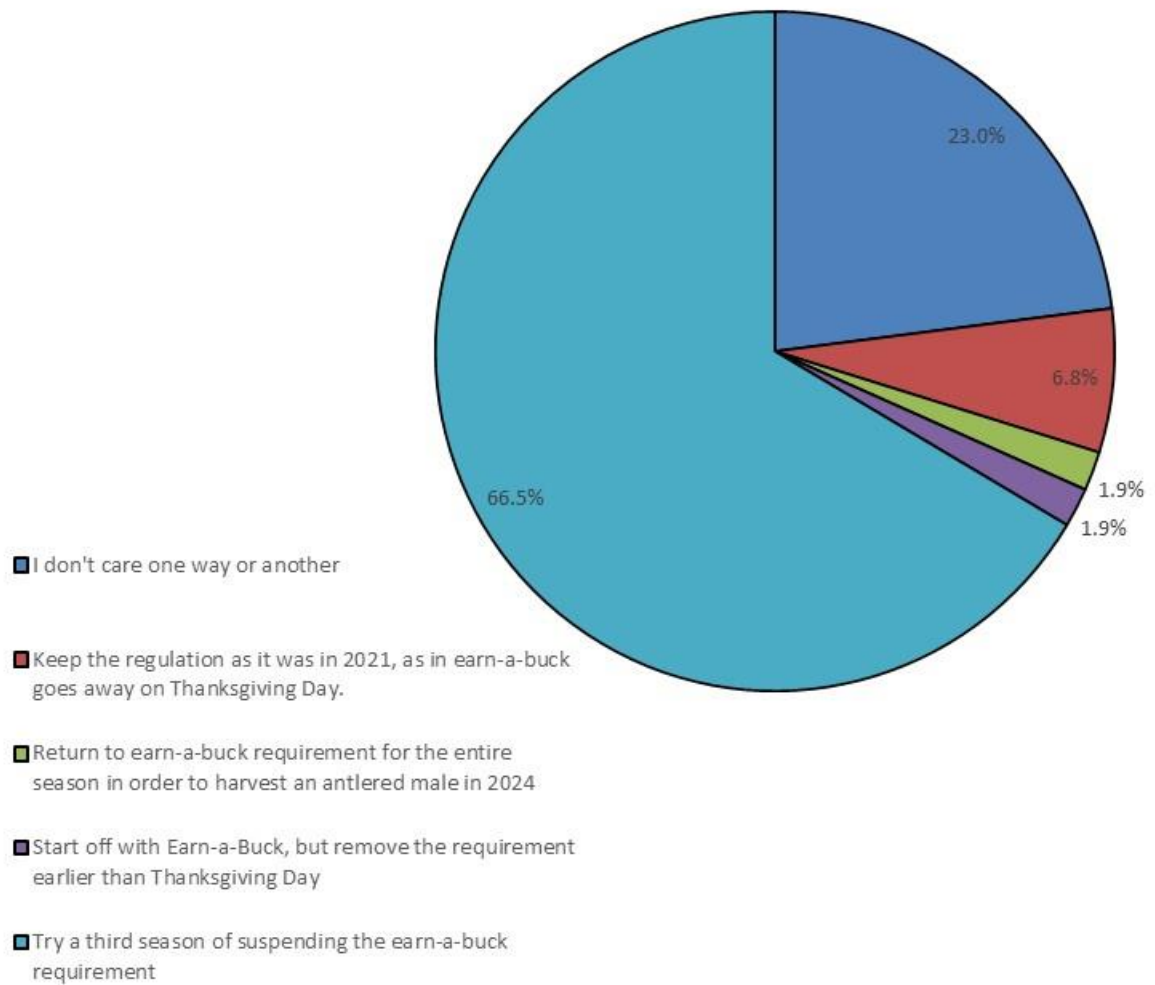


Figure 19. Hunters' responses in the Year End survey on their opinion for the earn-a-buck requirement recommendations for the 2024 Duluth Urban Bow Hunt season.

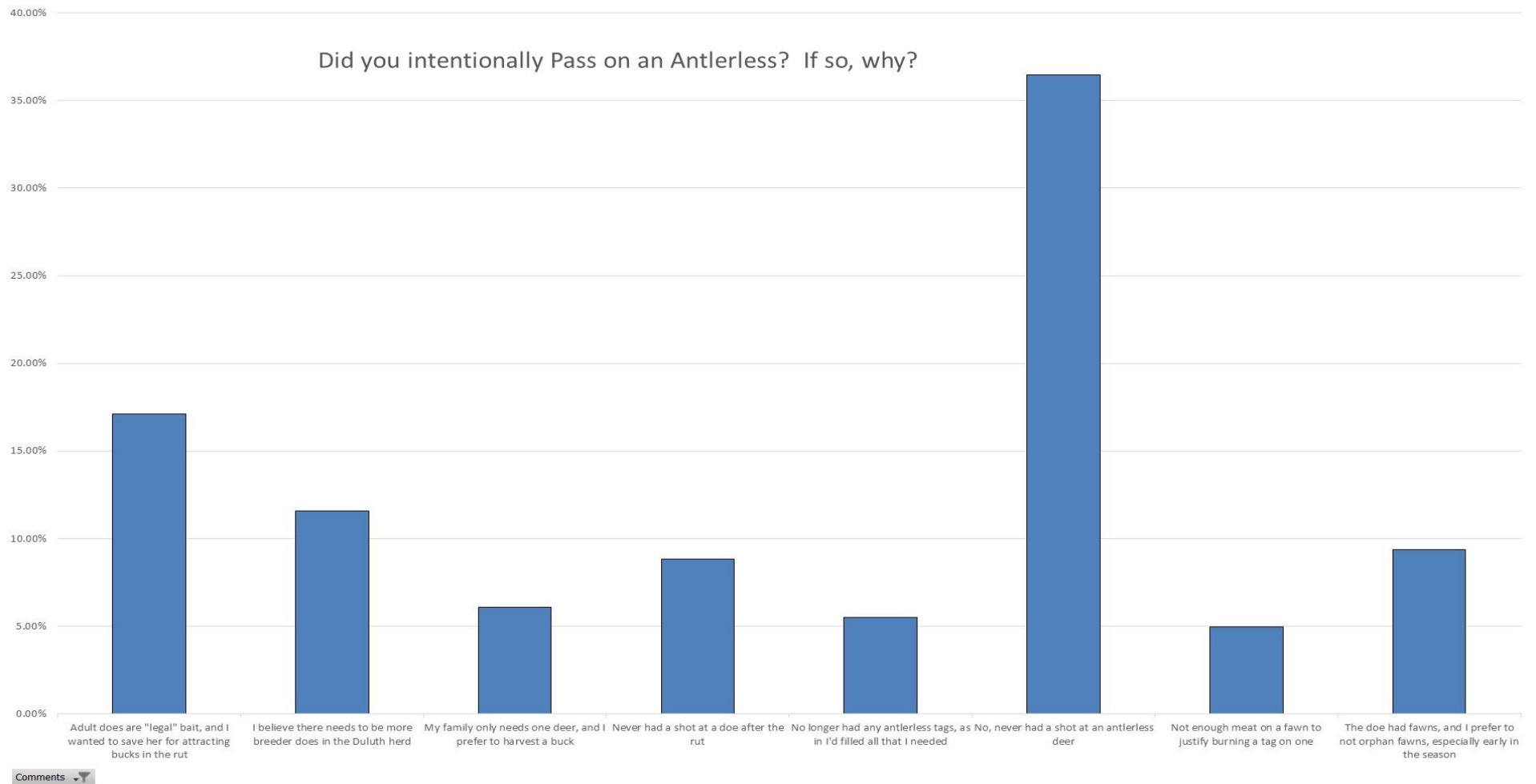


Figure 20. Hunters' responses in the Year End survey when asked if they passed on an antlerless deer during the 2023 Duluth Urban Bow Hunt, and if so, why.

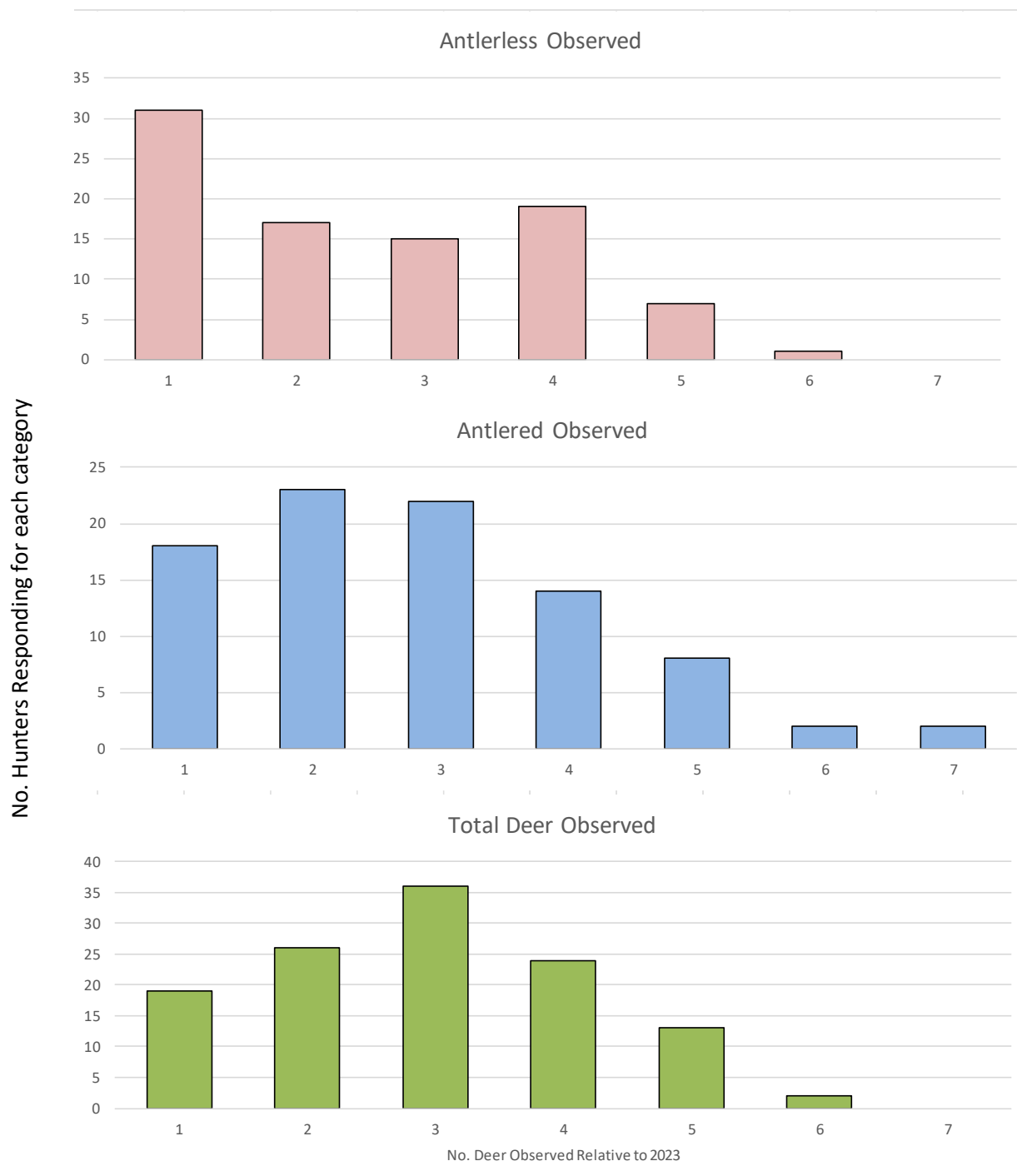


Figure 21. Returning hunters' reports on the number of deer observed in 2023 relative to that observed in 2022, separated by antlerless deer (pink bars, top panel), antlered deer (blue bars, middle panel), and all deer (green bars, bottom panel).

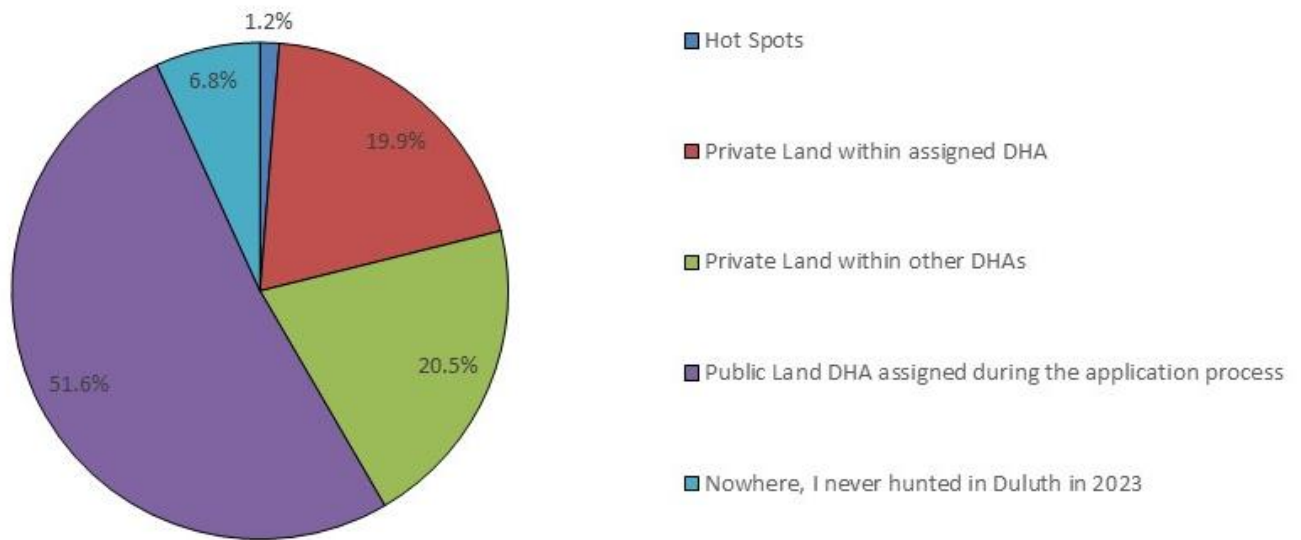


Figure 22. Hunters' responses in the Year End survey when asked where they spent the majority of their time hunting in 2023 within the City of Duluth.

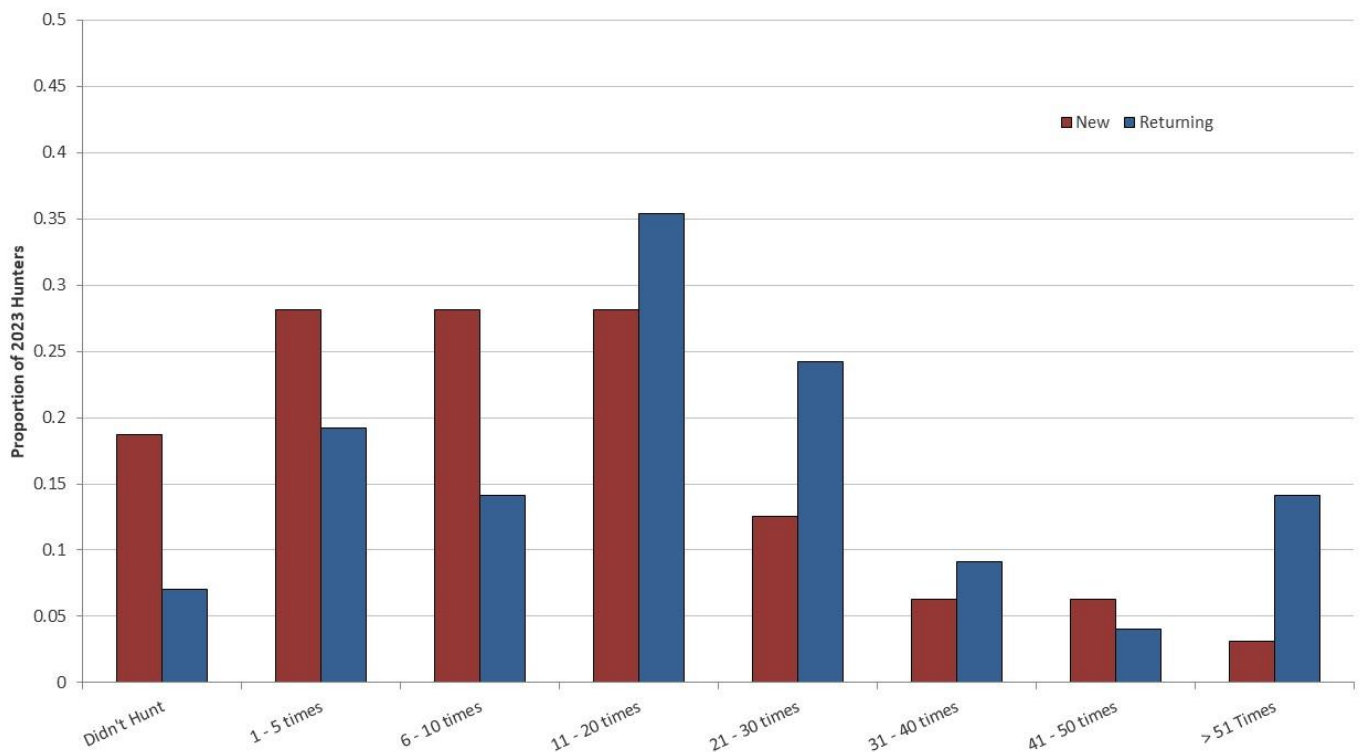


Figure 23. Hunters' responses in the Year End survey when asked how many times they actually hunted within the City of Duluth during the 2023 Urban Bow Hunt.



Table 4. Hunters' responses in the Year End survey when asked if they participated in the MN State Firearms or the State Muzzleloader Seasons in 2023.

Row Labels	Count of Did you participate in the Minnesota Deer Firearms or Muzzleloader Seasons in 2023?
I didn't hunt at all this season, not in Duluth, not anywhere. Just no time.	2.48%
No, I only bowhunted in Minnesota in 2023	55.28%
Yes, I participated in BOTH the Firearms and Muzzleloader Seasons	4.97%
Yes, I participated in the Firearms Season	36.02%
Yes, I participated in the Muzzleloader Season	1.24%

Table 5. Hunters' responses in the Year End survey when asked if they harvested an antlered male in the MN State Firearms or the State Muzzleloader Seasons in 2023.

Row Labels	Count of Did you harvest a buck in the Minnesota Deer Firearms or Muzzleloader Seasons in 2023?
No	90.06%
Yes	9.94%
Grand Total	100.00%



Table 6. Hunters' responses in the Year End survey when asked for reasons why they may have hunted for white-tailed deer somewhere other than within the Duluth City Limits in 2023. These comments are directly from the Year End Survey and have not been altered or corrected for grammar or spelling.

	Why did you hunt elsewhere?
1. Wasn't seeing deer in the city. 2. Wanted to use my new crossbow.	1
Always hunt a few other states in addition to Duluth	1
Better opportunity and family tradition.	1
Bow hunt in Wisconsin	1
Couldn't find any deer of size that were worth hunting at the time within the Duluth area.	1
Couldn't find enough deer in Duluth	1
Early Doe hunt.	1
Family Hunting Camp	50
Family hunting camp and youth rifle hunt to get kids involved	1
Hunted North Dakota with buddies for the opportunity. Wasn't because of the lack of deer here.	1
Hunted private property that I can manage individually in other parts of MN. Also hunted in Wisconsin for their rifle and bow season because I have had good success there.	1
Hunted public land outside the city	1
Hunting land elsewhere	1
Hunting trip away from home with friend	1
I hunt rifle deer season in zone 178 due to friends hunting there. All bow hunting was in Duluth DHA.	1
I rifle hunted around Barnes, Wi	1
I wanted another doe, one walked through my yard during rifle season so I shot it	1
In another city hunt	1
Kansas, better hunting	1
More deer elsewhere	1
Moved cities, Family camp, out-west tags	1
No deer and too many trails to try to avoid	1
none	1
Not enough deer in Duluth	1
Personally I also hunted in WI archery season as well. I also sat with my wife helping her in Archery, rifle and muzzleloader season in MN mostly in Anoka County.	1
Rifle season with friends Hunted 2 days	1
Special cwd hunt southern mn, extra chance at another buck	1
Special hunt tag	1
Took advantage of other hunting opportunities.	1
Wisconsin	1
Grand Total	79



Finally, the ABA would like to thank these volunteers, without whom we couldn't pull this Hunt off:

Andrew Frieland	Bruce Fehringer
Camron Vollbrecht	Matt Stark
Peter Vanderbosch	Gary Rabold
Jesse DeWitte	Mike Hedlund
Kerry Lapcinski	Tony Marino
Matt Anderson	Brandon Mandt
Mike Dodge	Scott Schafer
Seth Hartman	Tim Key

Board Members for 2023:

Phillip Lockett, President	Patricia Lewis
Leann Oehlerking-Boes, Chair	Jordan Buetow
Brian Borkholder, Secretary / Treasurer	Joe Austin

Thank you to all who made it this far in the Report. Your perseverance is applaudable, though your choice to do so is questionable. On behalf of the Arrowhead Bowhunters Alliance, we thank all those individuals that participated in the 2023 Duluth Bow Hunt, and who made this another successful, albeit difficult, season. See you in the woods in 2024!



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 2024?” Hunter comments are in the left-hand column. Responses from the Arrowhead Bowhunters Alliance are in the right-hand column. Comments are as submitted. No attempt was made to correct grammar or spelling.

Do you have any ideas or suggestions for improving the Hunt in 2024?	ABA Response
<p>15A Hartley DHA could be extended a bit. November is probably the lowest traffic time, as the leaves are down, the mountain bike trails are usually too muddy to ride, and typically there isn't enough snow to ski or snowshoe. I think mid to early November start date would be perfectly reasonable.</p> <p>Also, in years with no snow where the city isn't grooming ski trails like this year, it would be nice to see the eastern half of Hartley open to hunters. That half of the park has very low traffic right now and a lot of deer.</p>	<p>The ABA gets zero say into when we can access Hartley. That decision lies with their Board of Directors. Maybe they'll actually take time to read this report and see your suggestion.</p>
<p>A police officer or two that are involved with this group. When I reported the illegal rifle hunter the state couldn't do anything and only local authorities have authority. With this I am just concerned about my safety and the near by property owners safety.</p>	<p>We do have a very good police liaison that works very well with the ABA. And he's also one of our hunters. If Officer McShane isn't aware of the issue, he can't address it. Please feel free to contact Duluth PD next season. I'd bet you the donut in Officer McShane's hand that he'll get back to you.</p>
<p>Allow recurves in hot spots</p>	<p>Pretty sure if you qualify with a recurve you can shoot a recurve in the Hunt</p>
<p>Board and HCs do a great job. Curious if we can get year end violations and what happened with the violators</p>	<p>Thank you for the accolades. Unfortunately we don't embarrass the violators by making their sins public. We might consider listing the violations that occurred, but just not giving out names. Board will discuss this.</p>
<p>Close bike and hiking paths during the first 3 weeks of November. Bork I hear your good at making things happen. Thanks</p>	<p>Yea, Bork has that pull with the City. He wishes he did! Your comment is noted for the City Admin. However, this November was unseasonably warm and nice, and thus brought out all kinds of recreation enthusiasts.</p>
<p>Consider the use of crossbows for the hunt.</p>	<p>This isn't solely an ABA decision. It'll ultimately be discussed by the Deer Review Committee and a decision made there on who can use what weapons on Duluth property.</p>



Continue to suspend earn a buck	The ABA will be recommending this again for 2024.
Doing great!	Thank you!
Earn a buck back	Your opinion is noted, but definitely in the minority
Everything is great!	Thank you!
fewer people	
First year, not much to offer yet.	
Get rid of mandatory heart donation.	It isn't mandatory. If you feel guilty after reading Bork's emails, perhaps consider participating and then you won't have your feelings hurt.
Get us permission to shoot coyotes	Would require a change in the City Ordinance. Currently as written, all we're legally allowed to shoot are deer.
Go back to previous year hunter numbers, or reduce the number of hunters in certain DHAs. I've hunted zone 1 for nearly as long as the city hunt has existed, and have never encountered as many people as I did this season. We couldn't get away from them - people putting stands up right next to where others already have them, guys "scouting" on or near property they shouldn't be. Cameras going up on trails right next to cameras that are already there... I think not only the size of the DHA should be a factor in determining hunter numbers, but also the realistic access one will have to huntable land in that zone.	We do our best. DHA 1 typically receives a lot of the new hunters. We don't know just how aggressively these new hunters will hunt. In the past, few of the hunters actually hunted there, as most sought out private property elsewhere. Thus, the ABA has allowed higher numbers in that DHA in order to get more hunters into the Hunt at Lottery night. But as far as overall hunter numbers go, we are well down in participation from our long-term average.
Great Job ABA!	Thank you!
Great job this year!	Thank you!
Had a good time in the woods, didn't see a ton but I enjoyed hunting	
Have a city priced tag instead of paying for an out-of-state deer tag. If possible	Sorry, this is a MNDNR issue. The State "owns" the deer, not the City. The State sells the tags, not the City. Superior, Wisconsin, has a hunt that you could participate in if you're from there.
Hunt coordination is impressive Well done Brian. Appreciate all your work	Thank you!



<p>I am grateful for the chance to recreate by bow hunting in the city. The hunt is very well run.</p> <p>As you contemplate rules for crossbows, consider expanding for use from stands but not blinds. I think stand hunting is extremely safe, even with a powerful bow.</p>	<p>Unfortunately, the vast majority of the complaints we receive from hunters on the ground turn out to be crossbow hunters slowly hunting their way to their stands.</p>
<p>I can't even give any constructive criticism as I feel the ABA and Bork run a great hunt and group here. Very thankful for the ABA and all the work they do to help put this on as well as the city for working with the group as well as hunters to keep a balanced deer herd all while us as hunters can provide meat for our families which speaking for myself I'm very grateful for!!</p>	<p>Thank you!</p>
<p>I feel this hunt is an amazing opportunity to harvest deer. The many hoops we have to jump through seems heavy at times yet maintains the integrity of the relationship between public and us. One thing that may be beneficial, probably a City Council issue, is the ability to harvest bears as long as no baiting is maintained. We seem to have a steadily increasing population of bears.</p>	<p>You are correct that bears (and coyotes) are becoming an increasing problem in the City. But again, the Ordinance doesn't allow for hunting anything other than white-tailed deer. And the ABA isn't too anxious to return to City Council to propose any changes to the Ordinance for fear of losing access to the deer.</p>
<p>I had no problems with this hunt. Things are fine how they are now.</p>	<p>Thank you!</p>
<p>I have no opinion.</p>	
<p>I think it's going well. The only suggestion would be to convince the City and DNR to reduce the limit to two deer, although it looks like only about three hunters took three deer. Thank you to all volunteers on the Board for their time and another successful year!</p>	<p>Thank you! The Area Wildlife Manager for the MNDNR will see your comment on deer limits.</p>
<p>I think you guys do a good job and appreciate the opportunity to hunt in Duluth.</p>	<p>Thank you!</p>
<p>I would like to be able make public DHA changes possible all season as long as the zone has empty spots. I understand zones that are full should not be not fair game for this. Maybe it's just me, but if a zone has open spots, a zone change at any time of the season seems reasonable? It also opens a spot in the zone you were originally assigned for others to switch to as well. Maybe there is a particular reason for after thanksgiving I'm not aware of.</p> <p>Appreciate all the hard work you all put into this hunt!</p>	<p>We have had issues in the past with hunters having their prime "buck rut" setups getting ruined with hunters suddenly gaining access to DHAs. This is why we have limited movement to after the main rut.</p>



I would like to see the hunter ID number used in the lottery. The generating of a new number for the lottery has help the people who turn in their registration cards later or near the final dates. Why do we need two sets of numbers?	You don't need two numbers. Use your Hunter ID in the application process and I guarantee that it will be used in the Lottery. If you had two numbers last year, it's because you applied with a number that wasn't assigned to you previously.
It's been great and I appreciate it!	Thank you!
Keep Bork right where he is, he's the guy for the job. I think you guys did a great job this year. Deer herd was low from the tough winter, but they were still out there.	Unfortunately, Bork's days are numbered. He's been doing this for 20 years now and is getting tired of the bitching and complaining. He is actively searching for someone with data skills who may be interested in donating 200+ hours a year to this effort. Anyone interested should contact him to discuss this.
Keep going as is!	
Keep it how it is currently	
Keep up the good work to all that volunteer their time!	Thank you!
Kill timber wolves within city limits	Now you're talking about allowing folks to commit felonies. Wolves are currently a Federally protected species. Not sure I'd want to shoot one!
Less hunters allowed	
Less rules	This is an urban hunt, and as such, is loaded with additional rules and regulations to keep hunters from fighting and residents from complaining. We know they can be onerous at times. If you truly can't stand them, there's a lot of real estate to hunt outside of the City limits.
Less wordy emails	Bork has to give out detailed information, mostly because lots of folks don't pay attention during Orientation nor do they really read the Rules. By spelling things out in great detail, when a hunter messes up, the ABA Board can fall back on " <i>You received the information directly from Bork, so you have no excuse for what you just did (or didn't do)</i> "
Limit the number of hunters	We do. Still might be more than you'd like to see, but we have to give folks opportunities to recreate in the woods.



<p>LOL - love your humor. I think the hunt is run very well. I think holding off on 'Earn a buck' is the right course for the foreseeable future; in general, many DHAs have fairly low deer densities and a hunter should have the ability to harvest the first deer he or she sees. Some hunters have limited time to hunt and if they only get out a few times and can't shoot a buck before they harvest an antlerless, they may not get a chance to harvest a deer. I had limited time to hunt this year and didn't harvest my deer until five minutes before the end of the season; it was a doe, but if it would have been a buck under earn a buck, I would have had to let it pass. Again, I strongly recommend keeping the regulations the same for 2024 as they were in 2023 so a hunter can harvest the first deer (possibly the only deer) which provides them with a good, ethical shot opportunity.</p>	<p>YES!!!! Love hearing that someone gets Bork!!! Take that, Manny!!! The ABA will once again be recommending that the earn-a-buck requirement be suspended in 2024.</p>
<p>Look at adjusting the hunting area of 15b to engulf parts of 15a to be hunted on opener. Some large chunks that don't have trail systems in them and could be hunted. I.E near North and Middle Road off of Howard Gensen.</p>	<p>The ABA will look into this. Thanks for the feedback.</p>
<p>Look for more areas to hunt</p>	<p>We pretty much hunt all of the larger green spaces. These were set up 20 years ago through consultation with City administration. We have flexibility to open up areas outside of DHAs as Hot Spots. If you have specific areas in mind, please email those to the Board for consideration.</p>
<p>More than just 2 testing opportunities for marksmanship/accuracy may not be as intimidating for newer hunters to apply or return to the city hunt. The ABA was great with communication and information this year. Helpful and seemed non biased. Also understanding of my situation when I was unable to retrieve a deer that I thought was a lethal shot. Thanks for everything you guys do!</p>	<p>Thank you! Yes, the two attempts can be intimidating. But if you can't pass in two attempts, perhaps one needs to work on their nerves, because when a deer finally steps out, the adrenaline kicks in, much like it does in the proficiency test.</p>
<p>move distance from trails back to 200 feet. I reported some fool who was a mere 50-60 feet from the Root canal trail in Hartley. I also had another person state they picked up an arrow with a broadhead out of the ground next to a Hartley Field trail.</p>	<p>Was the arrow owned by a legal-ABA hunter? We've worked hard to get more of the woods open to our hunters, as we have lost a lot of real estate to the bikers. We don't want to step backwards now. We need hunters to use common sense in their set-up locations.</p>



Move this hunt to Buck Only or close it down and start doing every other year. Quality Deer Management matters!	If you want QDM, please consider buying a section and fencing it in. Manage your herd how you want. This is not a hunt to build quality bucks. It's a hunt designed to depress the herd to a point that is acceptable to residents, drivers, Duluth PD, insurance agents, and foresters.
No it seems run smoothly	Thank you!
None, I love it	Thank you!
Nope keep rowing the boat	Thank you!
Nope. Keep up the good work.	Thank you!
Open DHA hunt wherever you want and hunt as close to a "trail" as you want.	Nope. Not the way to have a smoothly-run hunt. We'd have nothing but fights between hunters and pissed off bikers and hikers. We share the woods with other user groups.
Overall it was a great successful year for me. I am curious on the crossbow stance for next year? Will it be open for all hunters or just those with age/handicap restrictions.	Deer Review Committee will decide who and what weapons will be allowed onto their property.
Please allow hunters to shoot coyotes. I've been in the league for ten years and see more coyotes than ever to include coyotes chasing deer. There are way to many!	We completely agree with you. But none of us want to risk losing this hunt by going back to City Council and readdressing the Hunt Ordinance.
Please keep the earn a buck requirement off the table In 20 sits, I literally laid eyes on 1 antlerless which I did not have a shot at. I was able to harvest a buck and put meat in the freezer. I wouldnt have otherwise.	This will be discussed this winter.
Quit shooting fawns make them off limits	Why? Lots of our hunters love tasty fawn roasts. What do we tell those hunters?



Require a more strict entry process. You cannot use a 3D league score. You must shoot all arrows into the white on a 5 spot target. You get 2 attempts at this. If you fail 2 times, you're out. This will limit the amount of overall hunters and hopefully limit the amount of wounded deer.	Noted.
Return to earn a buck requirement. I feel people need to put some skin in the game and give back for this wonderful opportunity the City and ABA have provided. As often the case, it seems people that complain the most put in the least amount of effort. Go hunt elsewhere if you think earn a buck is too difficult and see how that works out. This hunt is a privilege not a right	Your opinion is noted.
State allows crossbows, ABA is above the law? Bullsh\$\$!	You are completely mistaken if you believe this to be solely an ABA decision. We make recommendations to the City's Deer Review Committee. They regulate the rules of this hunt. But this isn't a State hunt, it's an urban hunt. As such, there are additional safety concerns that will need to be addressed. For the record, the ABA will be recommending that crossbows be limited to those over 60 years of age and those with medical conditions that necessitate the use of crossbows.
Still seeing rifle hunters and ATVs in zone 1. Consider a voluntary signup per zone for a hunting mentor who would be willing to pass on their knowledge of the zone, parking spots, areas or homes to avoid, unofficial hiking trails, etc. Could be a star by your name during signup, or suggest contacting HC who could distribute contact info. Just an idea.	Interesting thought. I wonder how many hunters out there would be willing to divulge such intel?
Suspend the Earn-A-Buck requirement again in 2024. I took advantage of the suspension this year, harvested a buck, and it happened to be the only ethical shot opportunity all year at any deer. I know that's how hunting goes sometimes, but that single opportunity made the season a success.	This will be discussed this winter with the Deer Review Committee.
Talk to the DNR about allowing an earlier hunt. Also, can the city please deal with relocating deer, wolves, and coyotes within the city limits. Besides eating a lot of summer fawn and winter deer, the bear are too many and get into too much. The wolves and coyotes are a threat to pets and small children. It is just a matter of time.	MNDNR will never allow an earlier hunt. Besides, wouldn't that seriously cut into fishing time? Bears, coyotes, and wolves have been addressed in previous comments above.



Thank you for all the time and effort that you contribute toward this effort	Thank you!
Thank you for all your volunteer work to keep this hunt going and well organized.	Thank you!
Thanks for all the work that goes into running this hunt!	Thanks you!
Thanks for all your work.	Thank you!
Thanks for helping me look for my wounded deer. Wish we would have found her. Dog was great. Thought I'd get yelled at for making a bad shot. Thanks	Spend enough time at this sport, and you'll eventually lose a deer. We aren't about making you feel terrible for your loss. We're here to help you find your deer so the general public doesn't find it in the spring when shed hunting. Better luck next time.
Thanks for the hard work ABA	Thank you!
Thanks to ABA for coordinating the hunt.	Thank you!
The hunt is great. Well organized and a wonderful opportunity.	Thank you!
The whole operation is run well.	Thank you!
The whole thing is run as friends and family group, in the rules it states that EVERYONE must do the lottery, but some how zones are filled pre lottery. And there isn't even mention in the rules book about seniority, the whole thing is In my opinion been ran wrong. Take it as whine if you have to.	Bork obviously didn't explain well enough how the Lottery is set up and run. Please contact him directly for a complete explanation of the process. He'd be more than happy to walk you thru the process.
There needs to be a very clear process for requesting to use a ground blind. Not just contact the ABA. (someone or the exact email for contact) Thanks for the effort and work the board, DHA coordinator and others involved do to make this hunt possible.	This was explained at Orientation Night. Unfortunately, far too many folks tune out the ABA and their constant yammering and blah, blah, blah. . . .
This Duluth Archery City Hunt is great. Thank you to Duluth, people at ABA and deer trackers.	Thank you!



<p>Too many hunters, better pr hunt cord, no rifle hearts in drawing,</p> <p>Too much trespassing on private property, notice to change zones earlier, good job to aba officers.</p>	<p>1) We try our best to predict the right number of hunters; 2) not sure what you mean by pr hunt cord; 3) hearts are hearts, UMD will take them all. Why not thank those that go the extra mile to help out UMD? 4) Call Duluth PD on trespassers, the ABA can't enforce anything if we're not aware of the issue; 5) We've always allowed DHA changes AFTER the rut. How would you like a new hunter scouting out a new DHA right thru your rut spot? 6) Thank you!</p>
<p>Ur doing just Fine</p>	<p>Thank you!</p>
<p>Will be returning! 2023 was my first year bow hunting and had absolute blast. Love that I don't have to travel far to chance whitetails.</p>	<p>Thank you!</p>
<p>With the trend of declining deer populations throughout Duluth and surrounding areas, the ABA should start considering taking steps towards increasing the deer populations. Some suggestions would be: reduction in antlerless harvest, allowing hunters to harvest over-populated predators like coyotes, pushing to allow for supplemental feeding after the season is closed, etc..</p>	<p>Agreed that we've done a great job at controlling a previously-overpopulated herd. However, we aren't in the business to build the herd back up. It's up to hunters to self-regulate what they NEED to harvest. By suspending the earn-a-buck requirement, we've taken steps to allow hunters to just shoot a buck and allow the females to remain in the herd to breed. As mentioned previously, we can't harvest other critters without an Ordinance change. And the Ordinance specifically bans the feeding of deer. Thus, it would require an Ordinance change to allow for feeding. There's enough data to suggest that feeding increases disease transmission, and in the harshest of winters, can actually be detrimental to the overall health of the herd.</p>
<p>You all are doing a great job. Keep up the good work. Thank you</p>	<p>Thank you!</p>
<p>You are doing a good job thanks</p>	<p>Thank you!</p>
<p>you can't leave us Bork. shorten up the mandatory meeting. the DNR talk was great but for us that have been doing this for almost 20 years we just want to be done with it. possibly go over anything new first then allow those returning hunters to leave the meeting.</p>	<p>Bork is a short timer. He doesn't see his stint going for more than two more years, tops. Unfortunately, the gripes and bitches have really started to wear him down. His frustration with hunters not reading emails and subsequently not following directions has also started beating him into apathy on this Hunt.</p>



<p>You guys and gals run a great hunt. I Wish after a certain number of years participating in the hunt (i.e. 5 yrs.) we wouldn't have to keep taking the proficiency test...but that might be a city requirement. Thank you! Bork is the man!!!</p>	<p>Thank you! Regarding the prof test, it is required annually mostly to make sure YOU know that your equipment is working properly. This means that you aren't putting your bow away in December and pulling it out on Sept 10th. Keeping your equipment in working order is guaranteed if you need that equipment to pass a very simple proficiency test.</p>
<p>You guys are doing a great job, thank you!</p>	<p>Thank you!</p>
<p>You guys do great work</p>	<p>Thank you!</p>
<p>You should be able to hunt in multiple different zones. Or combine zones to make them larger. There should not be 20 different zones.</p>	<p>It's hard enough keeping track of the Opt Out hunters that can hunt all over the City. It would be a nightmare to open up multiple DHAs for each hunter. For example, you and 11 other hunters get DHAs 4A and 4B. And everyone knows of the "big buck" in 4A. Now we have a dozen hunters cramming into JUST 4A. We have fights, and pissed off hunters, and lots of problems. This is why we force hunters to spread out and be distributed throughout the City, and not all crammed into one 30 acre lot.</p>



Appendix 2. Hunters' responses in the Year End survey when asked why they may not participate in the 2024 Duluth Hunt. Note that these comments are straight from the online database and have not been altered or edited for grammar. Once use of profanity was changed.

ABA committee seem against hunters

Because I like deer meat

Bullsh\$\$ hoops for no deer and guys getting DHA's and never setting foot in there blocking spots.

Close to home and convenient

Depends on the zone.

Gary is a sketchy town. People outside the city hunt are territorial about hunting the public land in the area

I am moving out of Duluth.

I have property near Cotton, depending on camera footage and other sign, I'll decide on hunting Duluth again.

I like that we are allowed to hunt the city for 1st it's close and 2nd population control, rather than letting them get hit by vehicles

I like to hunt my property

No deer in my area

None

The deer population has been decimated beyond recognition. Duluth is still a place for people to get outdoors and enjoy wildlife and at this point there are very few deer remaining for others to enjoy. At what point is enough, enough?



Appendix 3. Hunters' responses in the Year End survey when asked to justify their recommendations for the 2024 Season with respect to the earn-a-buck requirement. Responses are separated and grouped by the respondents' answers, e.g. justifications from hunters that didn't care about the earn-a-buck requirement are grouped first, followed by hunters that wanted to see the requirement expire on Thanksgiving Day in 2024, etc. As in the other appendices, no changes were made to grammar or spelling.

What would you like to see for earn-a-buck for the 2024 season?	What was your justification for your recommendation for the earn-a-buck requirement for 2024?
I don't care one way or another	<p>3rd year of suspending</p> <p>Don't know enough about city herd to have an opinion</p> <p>I hunt for meat and will shoot does or bucks</p> <p>I hunt for meat. Animal sex does not matter.</p> <p>I'd rather kill a buck</p> <p>Meat hunting, not focused on a big buck</p> <p>N/A</p> <p>Not in favor of "earn a buck"</p> <p>Probably won't do the hunt if it's earn a buck</p> <p>Seems to work</p>
Keep the regulation as it was in 2021, as in earn-a-buck goes away on Thanksgiving Day.	<p>To keep the population down</p> <p>Rewards a hunter for hunting</p> <p>Never saw a buck in my assigned DHA, or even in the one I switched to in late season.</p> <p>It's a management hunt</p>
Return to earn-a-buck requirement for the entire season in order to harvest an antlered male in 2023	<p>too many are shooting smaller and lower PY class deer that could develop into a true trophy, 99% of people want a big buck let them grow up</p> <p>I am for a reduced doe harvest for future years, whichever option that is...</p>



You can't have a heard reduction hunt if you are not targeting does. It's Biology basics. It would be an interesting study to see what happens to harvest totals if earn a buck was reinstated . Maybe disregard comment if we are in a "maintenance phase"??

Start off with Earn-a-Buck, but remove the requirement earlier than Thanksgiving Day

Didn't see many deer period, recommend suspending earn a buck

I believe the herd is at an acceptable level and should be "managed" now. Earn a buck keeps them around to breed does.

I hate to see the hunt become a buck focused hunt but would want to target buck during rut maybe starting about October 15

Try a third season of suspending the earn-a-buck requirement

After Thanksgiving, bucks go into rut which taints the flavor of the meat. I don't want to hunt bad tasting bucks.

Allows youth or people who have never shot a deer with a bow the ability to shoot whatever their heart desires.

Deer populations across the state are low, bucks don't affect that directly

Does are few and far between

Had there been an earn a buck requirement, I would not have venison in my freezer this year.

Harvest was extremely low for 2023.

I believe there is more demand, hunters looking for deer of any type than supply, deer to harvest. Unless or until we have an abundance of does that hunters are passing on, earn a buck is counterproductive. It discourages participation in these lean deer years.

I don't need to shoot 2 deer so if I could just shoot 1 buck I would rather do that.

I don't think earn a buck is even remotely a good idea after the last two hard winters. We need more breeding does.

I don't think it makes any difference.

I have never shot a deer with my bow (new to bowhunting this year). I would like the opportunity to shoot whatever I can rather than waiting for a doe first.



**Try a third season of
suspending the earn-a-buck
requirement**

I like hunters to have the preference of what they want to harvest and not take an ill advised shot just to burn their doe tag so they can buck hunt.

I only saw bucks when I hunted. I never saw a doe

I own say Bucks. we need to have the Buck number down. I hunt for a deer not just a Buck

I prefer to shoot one deer a year in Minnesota. I enjoy chasing after bucks more so than does. With all the wolf issues in our state, hopefully leaving some does out there to reproduce will lead to a more healthy deer herd in the future. This way my future kids can maybe get a deer with a bow, and enjoy the beauty of bow hunting before the wolves eat their way though our state.

I think fewer deer will be harvested if earn a buck returns.

I want deer meat

I want to shoot what ever comes bye

I've seen more immature spikes on camera and in the stand then does

im not sure

In my particular area I hunted, I only saw one doe all season and yet my cameras were filled with bucks.

In the area where I hunt, I've not seen a deer sighting increase after the change. Since I'm limited in how many opportunities I get to go hunting, I like the option to take a buck if it's the first deer I see.

It should be your choice.

It's an unnecessary requirement.

Just fewer total deer in the woods

Low deer #s.

Low harvest and fewer deer, so don't add restrictions.

Nice to be able to take best shots presented without pressure to get an antlerless first.

No doe opportunity. Population is down

Not enough deer in Duluth anymore to justify pounding fawns in September. Also if I see a big buck early season, I'd like to shoot it.



**Try a third season of
suspending the earn-a-buck
requirement**

Not many does around

Observing many bucks during season.

Opportunities are scarce so I would like to capitalize on any deer that comes within range that I would like to harvest

Opportunities to harvest a doe were few and far between. I believe the total deer population is low enough(at least in 3a where I did my hunting) to allow for a third season of suspending the earn a buck requirement allowing hunters who only wish to harvest one deer to wait for that deer to be a buck.

Population is low from predation, even in the city. Wolves. I have pics in the city of wolves.

Previous years I see more bucks in my area than does. I hunt for meat and it is discouraging to let something walk that I would gladly have in my freezer.

Recommending a third season of suspending the earn-a-buck requirement. Life happens and I've had less time to hunt in the fall. This mean less time to hunt in general so I'm happy with taking the first deer in range.

Relatively low amount of deer overall - no need for earn-a-buck.

So the does don't get shot just to satisfy the opportunity to shoot a buck. Seems like the definition of waste if all a hunter wants to do in the end is shoot a buck

Still just to few does around. I still think the herd needs to recoup a bit after getting hammered by us hunters and terrible winters

The deer population is still significantly lower now than I've seen in 20 years in my dha, even with the suspended earn-a-buck

The population is under control. Let the hunter harvest what makes them happy.

The population seems to be at a level where earn a buck isn't necessary from a management standpoint. Suspended EAB allows hunters to harvest a buck if that's the only deer they have in ethical range



**Try a third season of
suspending the earn-a-buck
requirement**

This is a management hunt , we are here for meat if you have to pass deer up in order to fill a tag it defeats the purpose of this hunt.

This one is tougher for me to answer this year I feel a bit unsure to be honest on what I feel. The 2021 season I saw zero does essentially hunting and only one on camera all summer/fall. 2022 I saw a couple does but felt 2022 was needed to hold off on does to help the population come back a bit. 2023 fall I did see a couple does but feel it was the same couple does I was seeing a couple times vs different does. Also knowing how hard the last three winters have been especially last winter as well as what I seen this summer, fall and winter driving around town my hunch is hold off on that requirement one more year. However feel the ABA will make the best decision based on what the rest of the hunters report for sightings etc and the balance we're trying to keep out there for deer. I do understand the reasoning for the earn a buck and it has it's place for sure in higher deer number years.

We just need to get rid of deer and eat venison.

Adaquet numbers of both in my zone.

Coyotes and wolves are killing deer

Deer population is way down

Deer population seems on track. Not a lot of does though

Earn a Buck should disappear. A rule of BUCK ONLY should be implemented

hardly any opportunities to shoot a doe

Harvest a buck and let doe numbers increase

I believe the deer herd has been managed correctly, and at this point in time there aren't a ton of deer.

I harvested the only doe i saw all year and if a buck had come in before that i want the opportunity to harvest meat. For those of us who hunt for food the sex of the animal shouldn't matter

I like the option

I prefer an opportunity to harvest any deer if the opportunity arises.

I shot my does first but it was what I saw first

If it's not a trophy hunt and the ratio of bucks to does is lopsided, open up opportunities to take bucks as meat deer.

Just don't care. Will be what it is



**Try a third season of
suspending the earn-a-buck
requirement**

Less deer than years ago!

Not enough deer left

Not enough deer to kill does

Not enough opportunities at deer in general

Not needed

Seeing less and less deer. I would like to be able to take a shot based on the shot, in the past I've had to pass a number of bucks waiting to shoot a doe.

Seeing what I believe is a statistical decrease in deer population, only speaking for my zone and my time in the woods hunting, scouting, hiking, etc.

Should be up to the hunter & not a forced decision. Each individual has various reason to shot or not shoot deer.

The deer population in certain areas cannot sustain a warm a buck requirement. On the private lands I hunt, there are only 2-3 local does. If I have to harvest one every year, the deer population is shit out of luck. I don't see a need right now to require an earn a buck, let the hunters decide if it is necessary/or they want to. Last season (2022), I only had 2/3 OKAY shots at antlerless deer. This year, I had more chances which I believe is from a positive correlation from removing the requirement last year.

The record snowfall further reduced the herd in many DHAs and I think allowing hunters to harvest either sex will allow some to get a buck if it's the only deer they see or the first deer they see. It will allow areas with very low densities the opportunity to recover a little (there is a balance of enough deer to make it worth hunting and not too many that they become problematic (car deer collisions, eating people's gardens, shrubs, etc...)).

