Harvest Summary 2014

or . . .

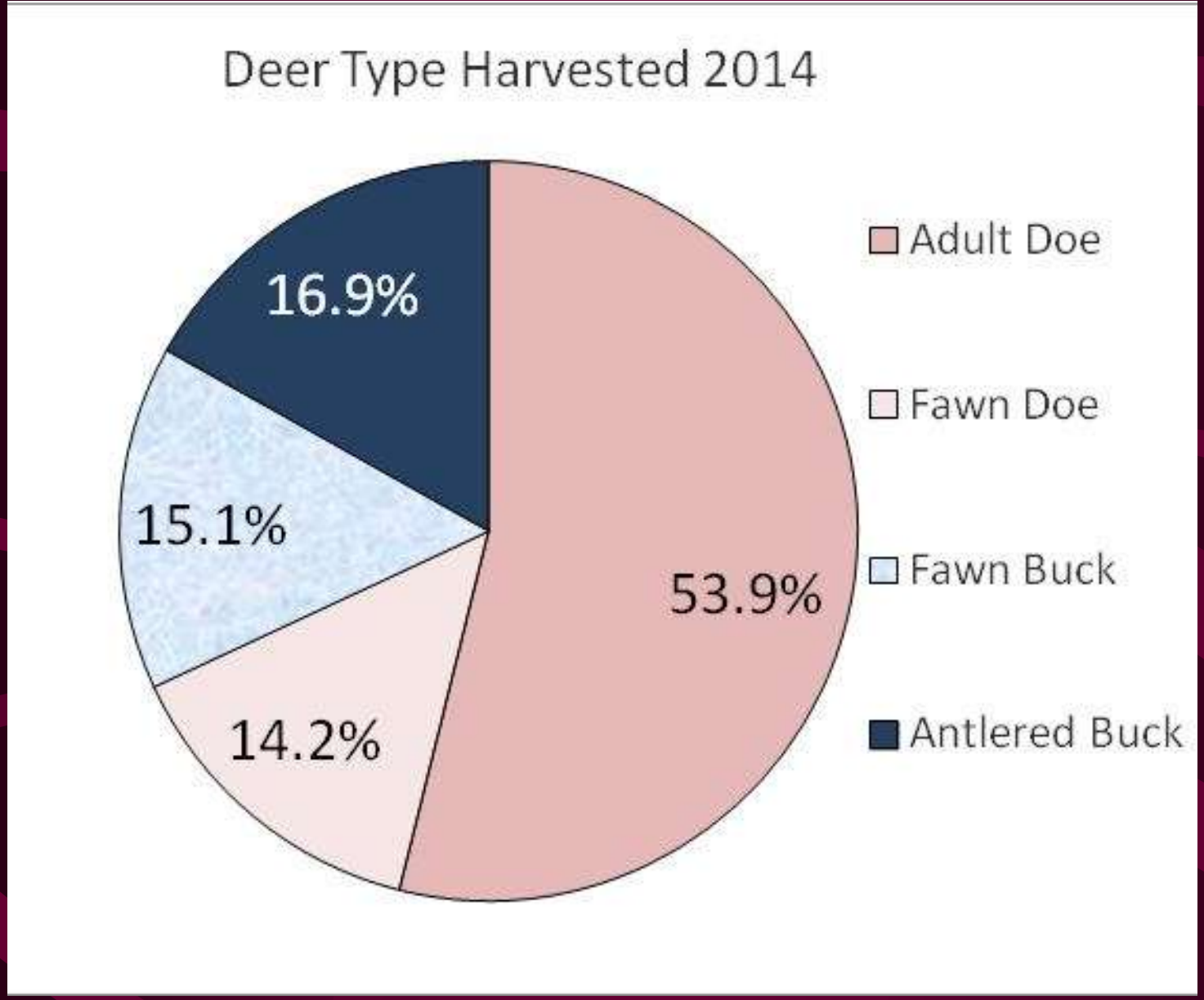
Everything you really didn't want to know about the Duluth Bowhunt, and were afraid to ask.

Submitted to ABA Board and to the Duluth Hunters By Bork

Image courtesy of T. Mangan

2014 Results

- 355 Hunters placed
- 451 Deer Harvested (375 antlerless, 76 bucks)
- 443 by our hunters + 8 Poached
- 1.25 0.17 Deer / Hunter
  - Only 0.20 0.04 Bucks / hunter
- 10.8 deer / mile^2 harvested



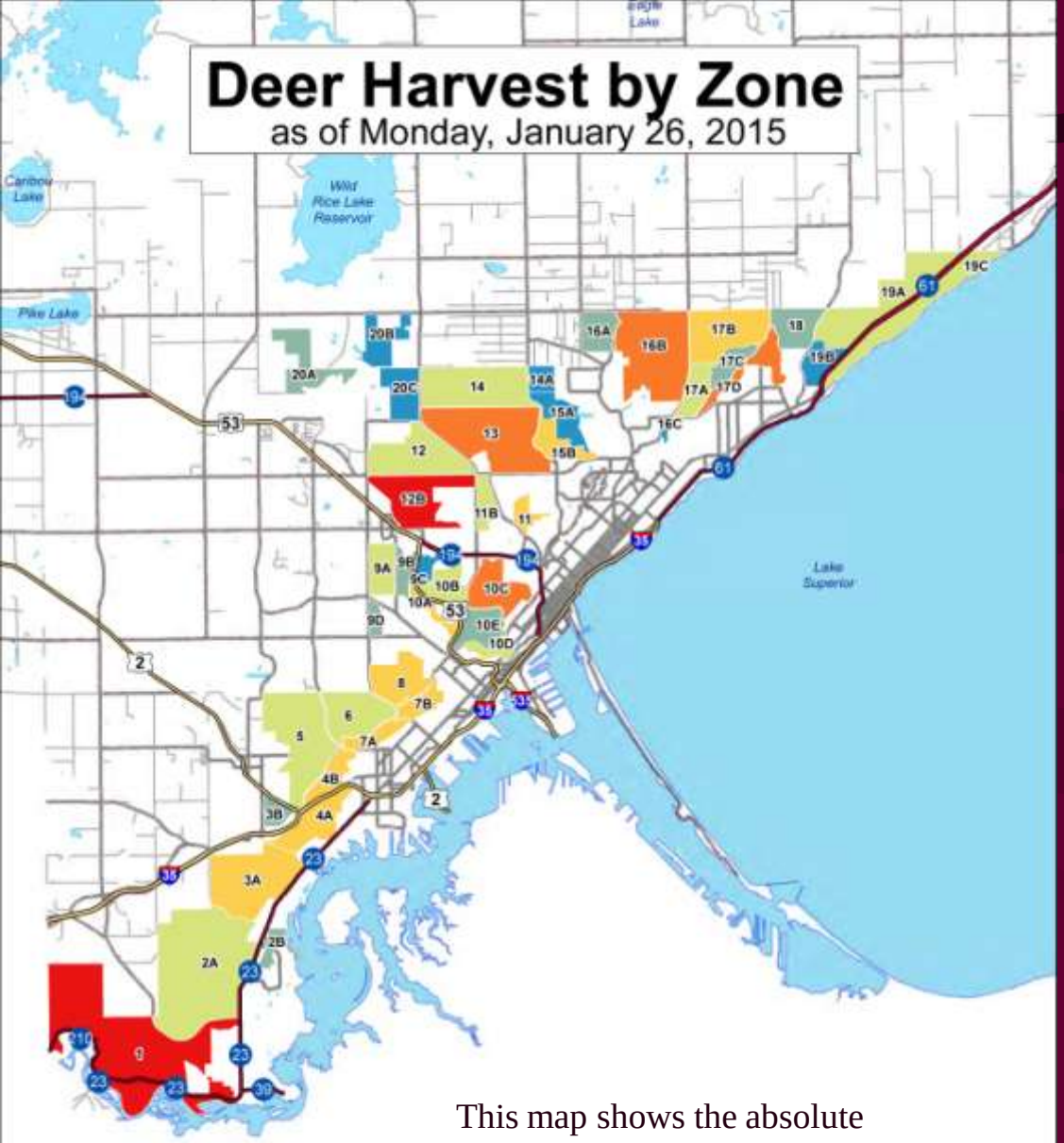
2014 Duluth Bowhunt Harvest

16.8% Bucks 83.2% Antlerless

Breakdown of Antlerless

- 375 Antlerless deer harvested in 2014
  - 68 Doe fawns
  - 64 Buck fawns
  - 243 Adult does

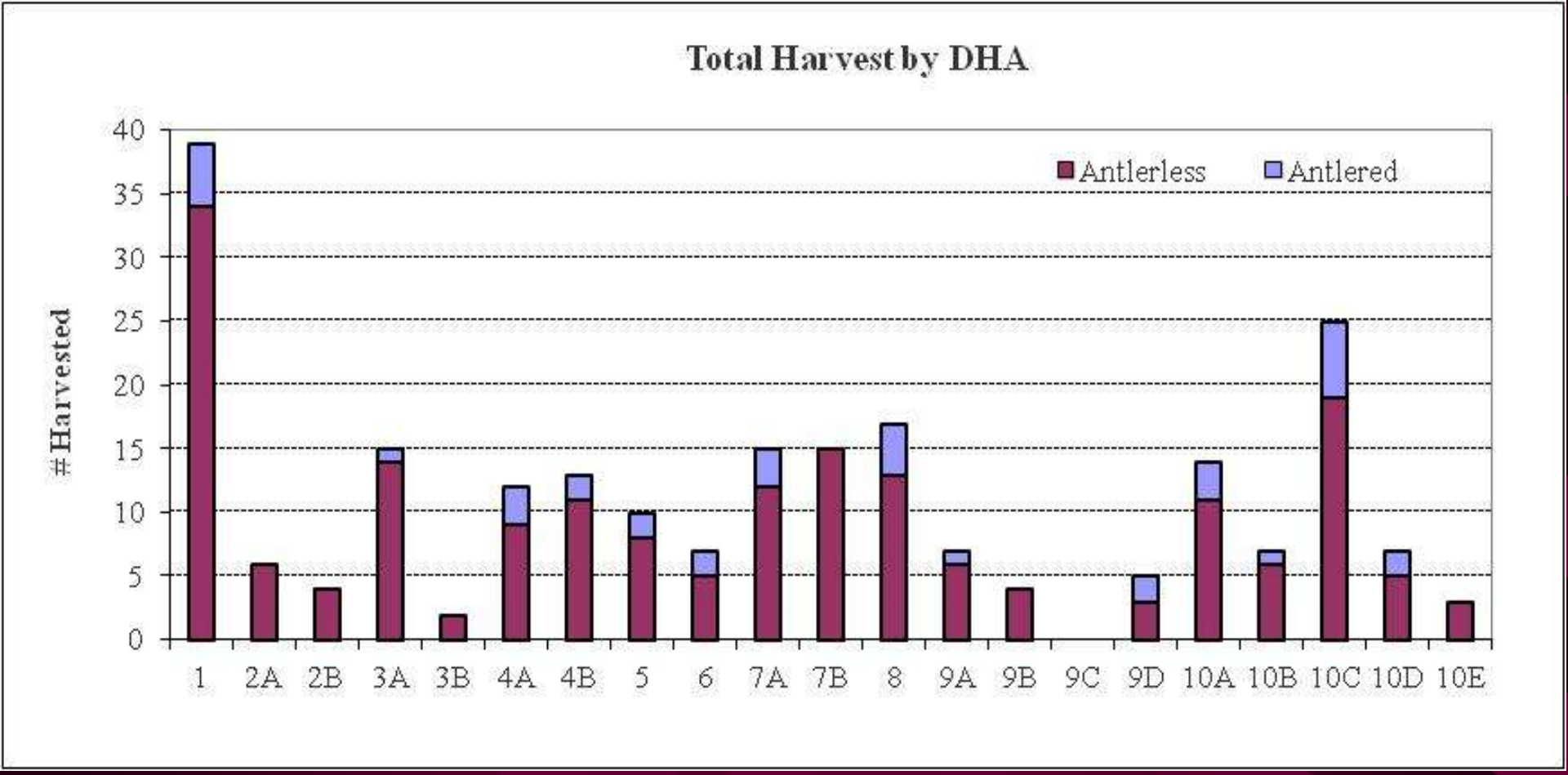
Photo Credit: C. Mannon



This map shows the absolute number of deer harvested within each of the DHAs during 2014.

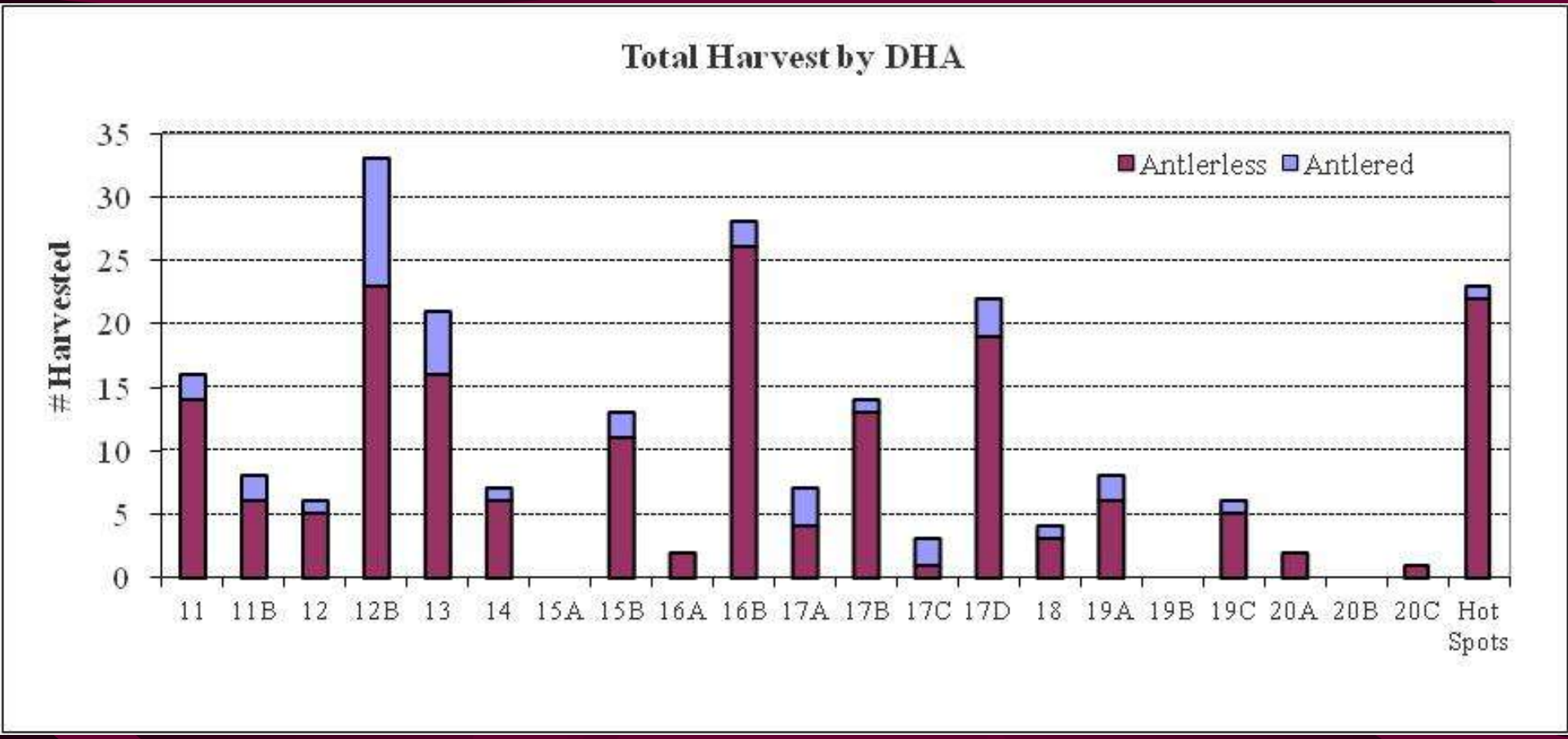
Map courtesy of Eric McPhee, GIS Guru Extraordinaire

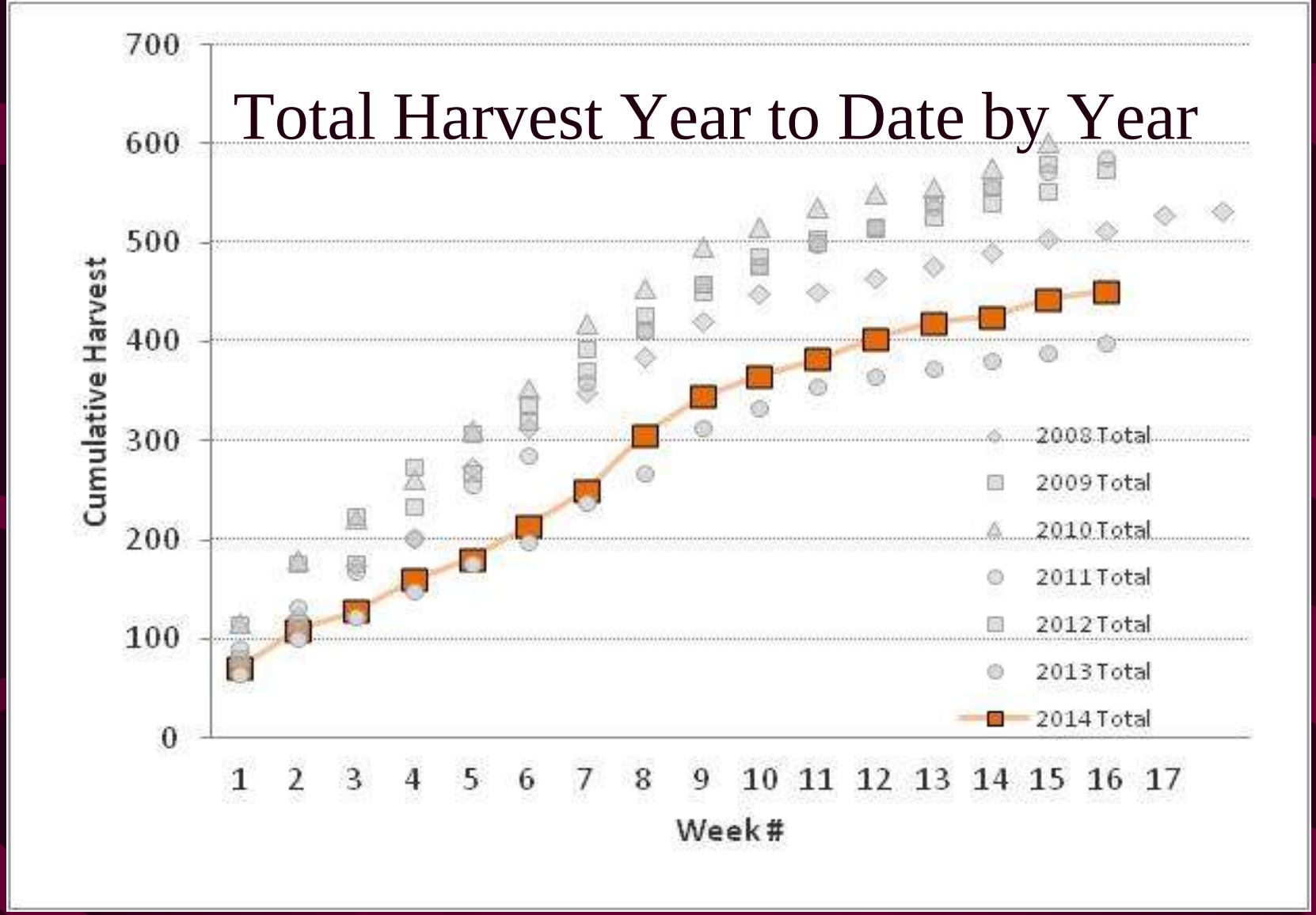
Photo Credit: B. Graber



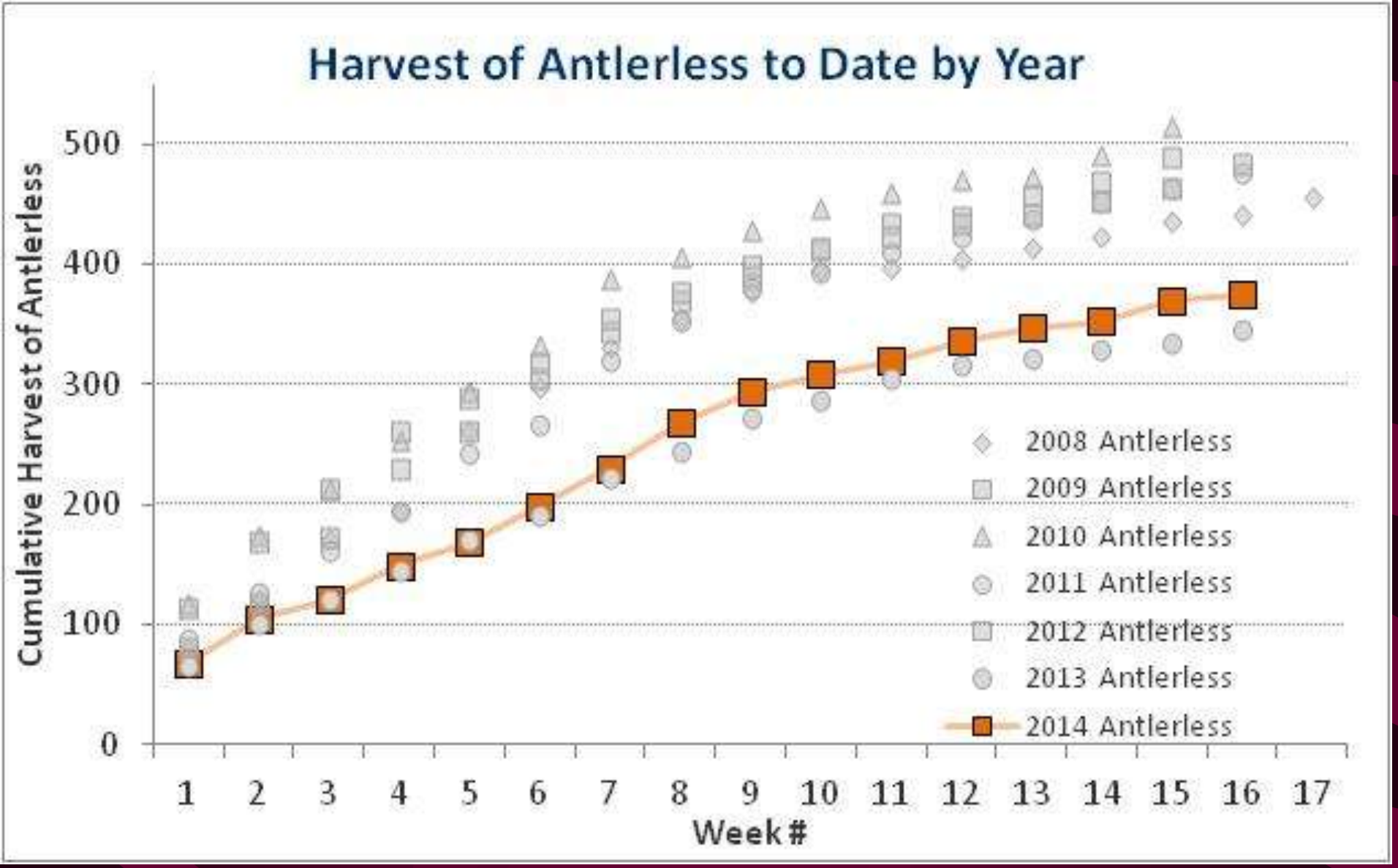
This and the next slide show the number of deer harvested within each of the DHAs during the 2014 Duluth Hunt. DHA 1 lead the pack with the most deer harvested.

Total Harvest by DHA, part 2



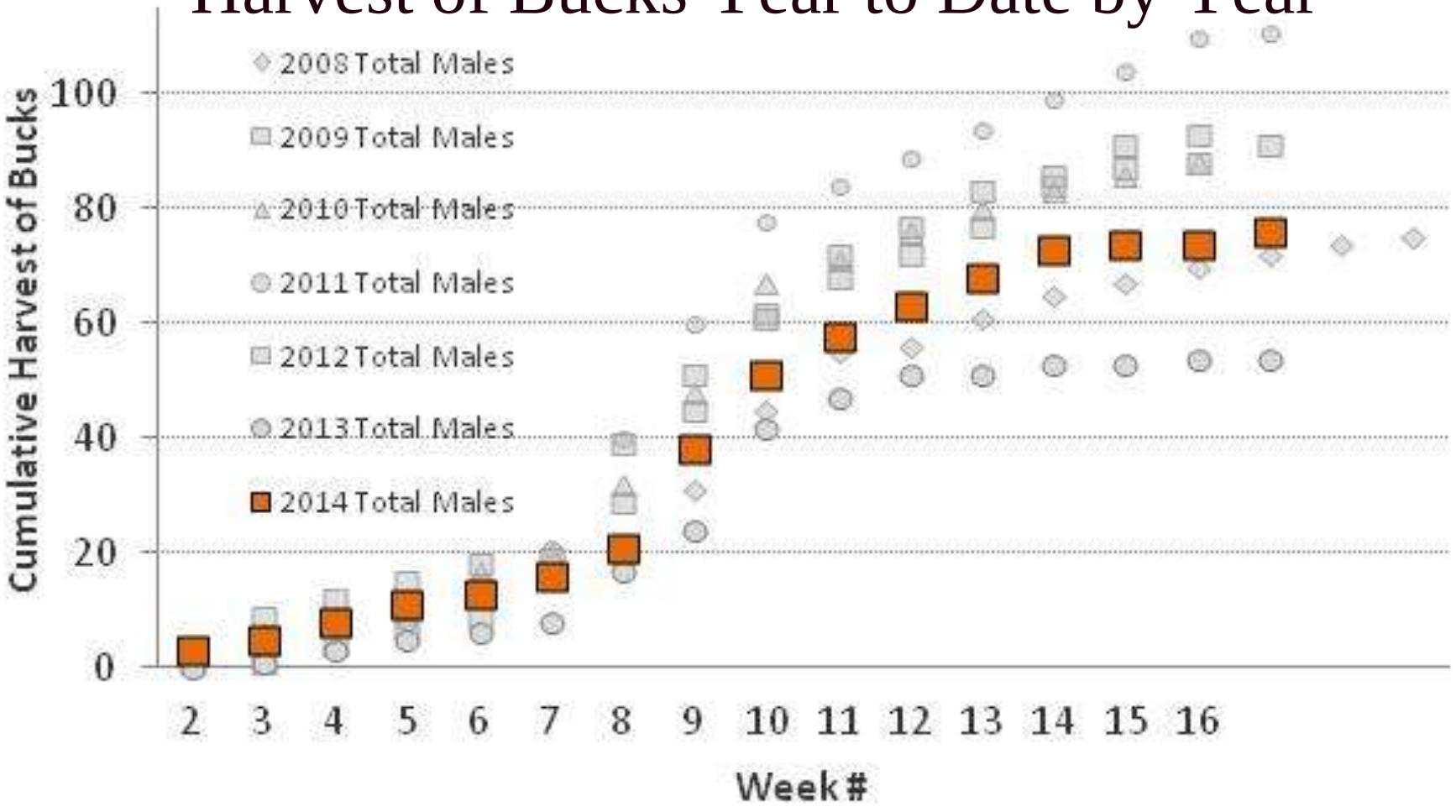


Cumulative total deer harvest, by week, for the last seven years of the Duluth Hunt. 2014 data is depicted by the orange squares. This is raw data, not corrected for the number of participating hunters. Total harvest hit 451 deer by the end of the hunt. Note that 2014 harvest lagged behind all seasons except for the 2013 season.



Cumulative total antlerless harvest, by week, for the last seven years of the Duluth Hunt. 2014 data is depicted by orange squares. Note again that harvest was down throughout the entire 2014 season, comparable to the low 2013 harvest. This is raw data, not corrected for the number of participating hunters. 375 antlerless deer were harvested in 2014.

Harvest of Bucks Year to Date by Year



Cumulative total antlered male harvest, by week, for the last seven years of the Duluth Hunt. 2014 data is depicted by orange squares. This is raw data, not corrected for the number of participating hunters.

Generally Cool Summary Stats

	2014	10-year Average
Total Harvest/Hunter	1.25 ± 0.17	1.67
Buck Harvest / Hunter	0.20 ± 0.04	0.27
Anterless Harvest / Hunter	1.04 ± 0.15	1.40
Harvest / Successful Hunter	2.13 ± 0.22	2.22
Buck Harvest / Successful Hunter	0.35 ± 0.06	0.35
Anterless Harvest / Successful Hunter	1.78 ± 0.20	1.87

General Stats, cont.

In the previous table, the Totals / Hunter include all registered hunters. This includes all of the hunters that failed to harvest any deer. Thus, the average Duluth hunter harvested 1.25 deer. Not knowing whether this was the result of not spending much time in the woods, or not even getting into the woods is unknown to me. I removed all of the zero-harvest hunters, and reported harvest / successful hunter. So if a hunter was successful, on average this hunter harvested 2.13 deer. That is the difference between those two stats.

I think these summary stats speak volumes. Average MN bow hunter shoots one deer every 7 - 8 years (0.13 deer / year). An average Duluth bowhunter shoots 0.27 bucks / year, but shoots 1.40 antlerless deer / year, over the last ten seasons.

Successful hunters shot on average 2.22 deer / season over the last ten years in Duluth. Successful hunters shot 1.87 antlerless / year and 0.35 bucks / year over the last ten years in Duluth, well above the MN average.

Thoughts on increased harvest in 2014 vs. 2013

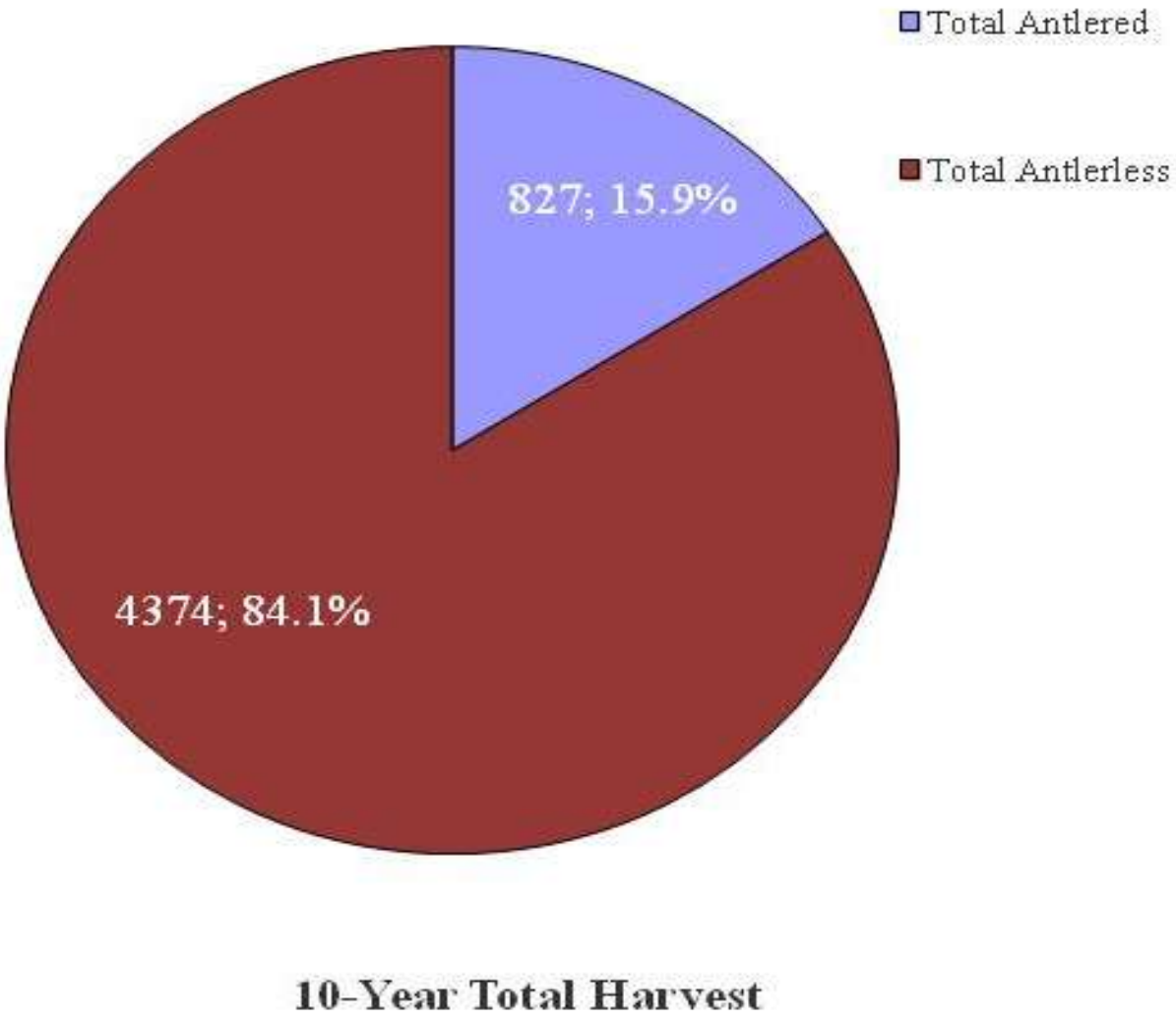
We placed 36 fewer hunters into the woods, we had another tough winter last year, and yet harvest was higher than in 2013. How could this be?

With the two difficult winters in a row, the MNDNR greatly restricted antlerless harvest throughout the entire State, except for Unit 182. For many individuals, the only place to shoot multiple deer was in Duluth. Did our hunters spend more time in the City? Perhaps.

Many individuals that would normally shoot a few deer during the MN Firearms season with friends and family, now did not have that opportunity. In most of the State, they were restricted to bucks only. Our hunters that want to put up 2 or more deer in the freezer now had to do so solely within the City limits. We suspect this may have been a primary driver to the increased harvest that we saw in 2014.

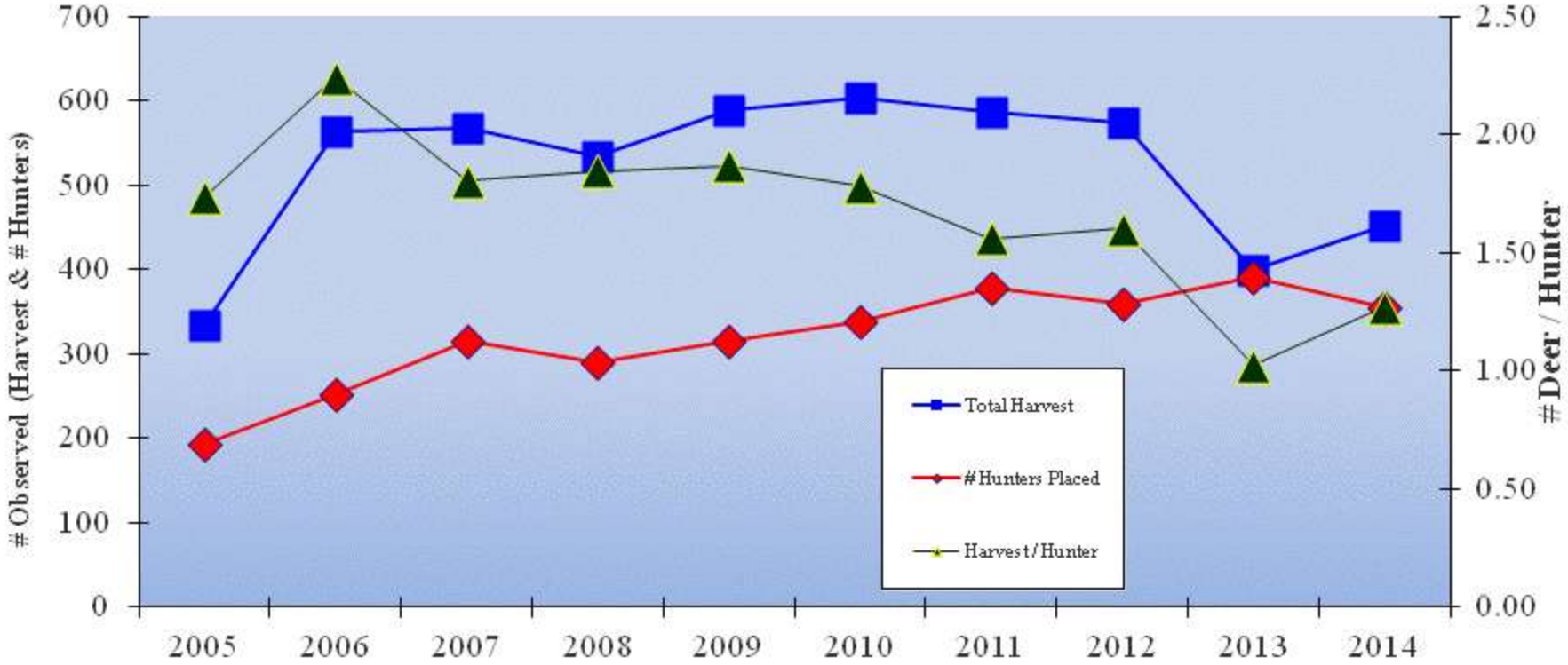
Image courtesy of P. Tryon

Harvest Summary 2005 - 2014



5201 Deer in Ten Years! This is total harvest over all ten years of the Hunt.

4374 antlerless deer have been harvested in Duluth.



- Total Harvest per season had been essentially flat between 2006 – 2012. We saw a large drop in harvest in 2013. Some of our hunters saw more deer in 2014, which resulted in an increase in harvest (blue squares).
- Number of deer / Hunter was essentially flat at about 1.8 deer / hunter from 2007 – 2012, until 2013, when it dropped to about 1.0 deer / hunter (green triangles). It rose a bit in 2014 to 1.3 deer / hunter.
- # Hunters participating has been steadily rising since inception in 2005 (red diamonds), until 2014 when we saw a decline in applications to 355 hunters.

End of the Main Section

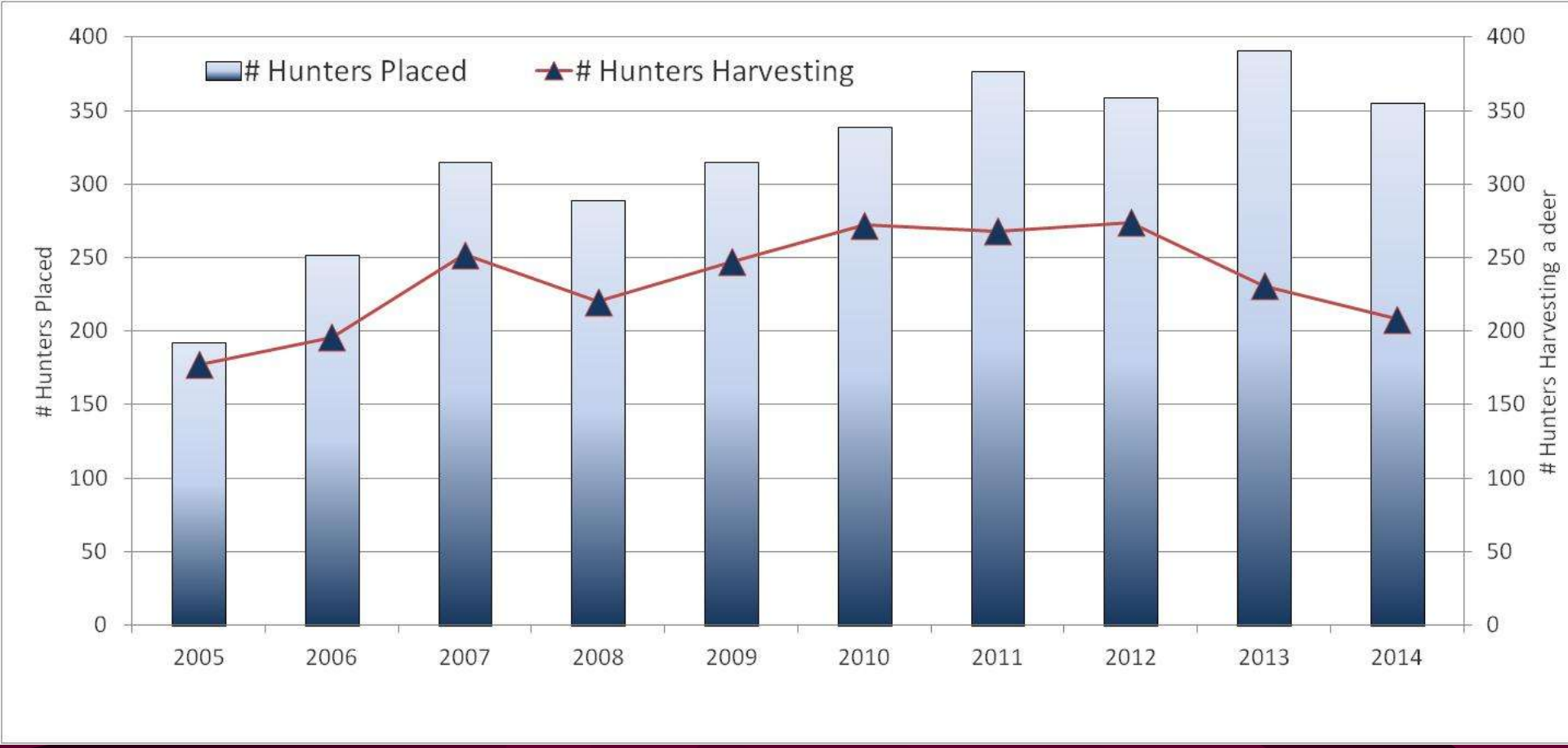
- For many of you, this ought to conclude the presentation. You now know more than you may care to about the 2014 Duluth Hunt.
- Pay attention to the website for deadlines for applying for the 2015 Hunt. See you over the summer! Thanks for your participation.
- For those who want a bit more detail, the next section delves into a more depth than normal individuals may care about. Proceed with caution.

Photo Credit: B. Graber

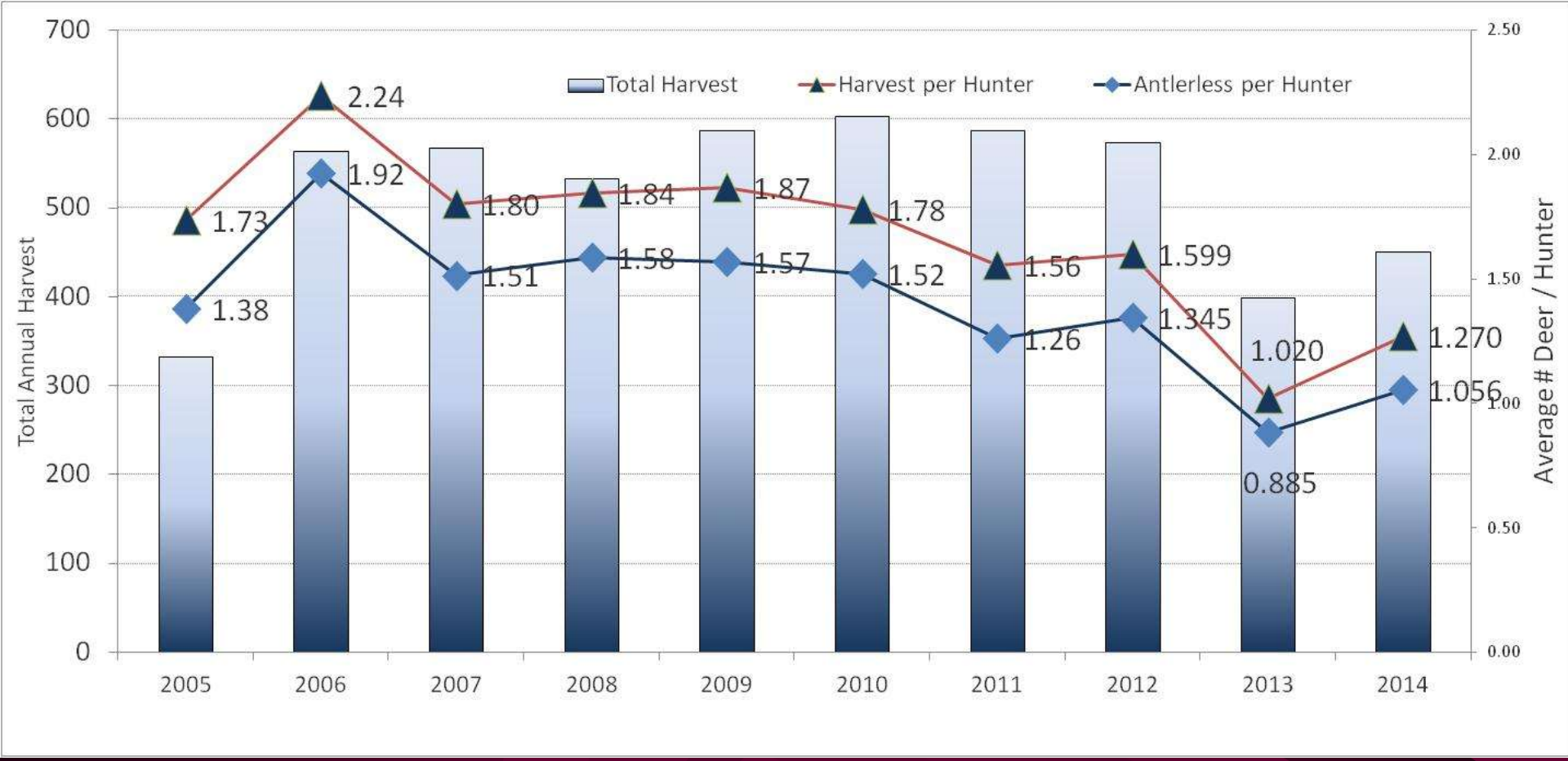
Icky Stats

- If you don't care about statistics, you would be advised to stop here. Unless you need to punish a misbehaving child, then make them read the next slides.
- But for those that eat this stuff up, viola'!
- These next slides have also been shown to cure insomnia in 86.7 ± 2.7 times out of 100.

Photo Credit: B. Fehringer

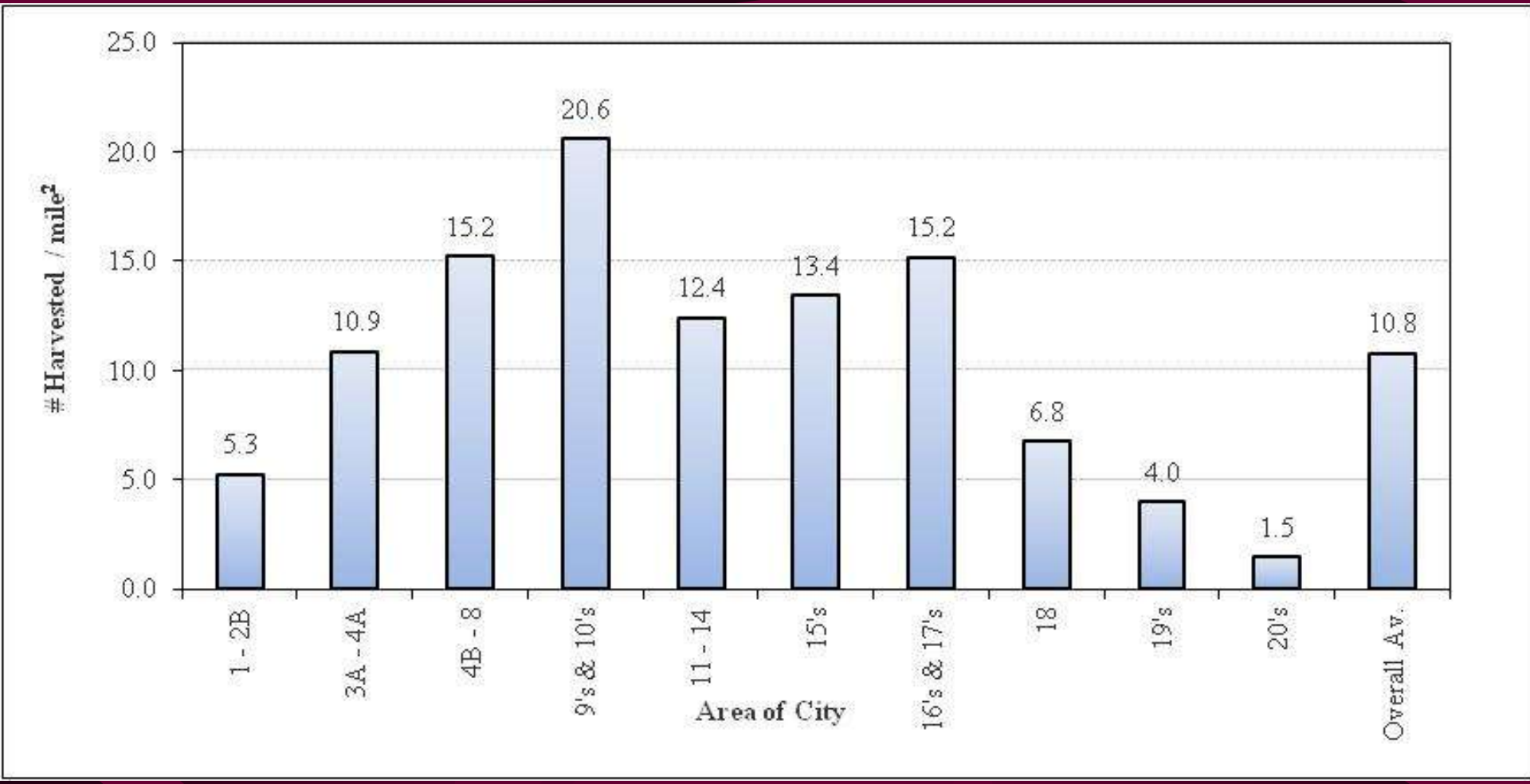


The trend over the four years 2008 – 2011 had been an increase in participation, until 2012. But it jumped again in 2013 to the highest roster fielded for the Duluth Hunt, with 391 hunters placed. In 2014, hunter participation dropped to 2012 levels. Hunter success appeared to have leveled off at just under 275 successful hunters thru 2012. In 2013, success dropped off considerably, the lowest percentage in the nine years of the hunt, with only 231 hunters, or 59%, harvesting a deer within Duluth. In 2014, The number of successful hunters dropped even further, to 208 successful hunters, or 58% of placed hunters harvesting a deer.



Total harvest was up slightly from the low observed in 2013. With the decline in participation, the actual harvest per hunter was up slightly. This increase in harvest per hunter was significantly larger than 2013 ($P<0.0154$).

2014 Harvest per square mile



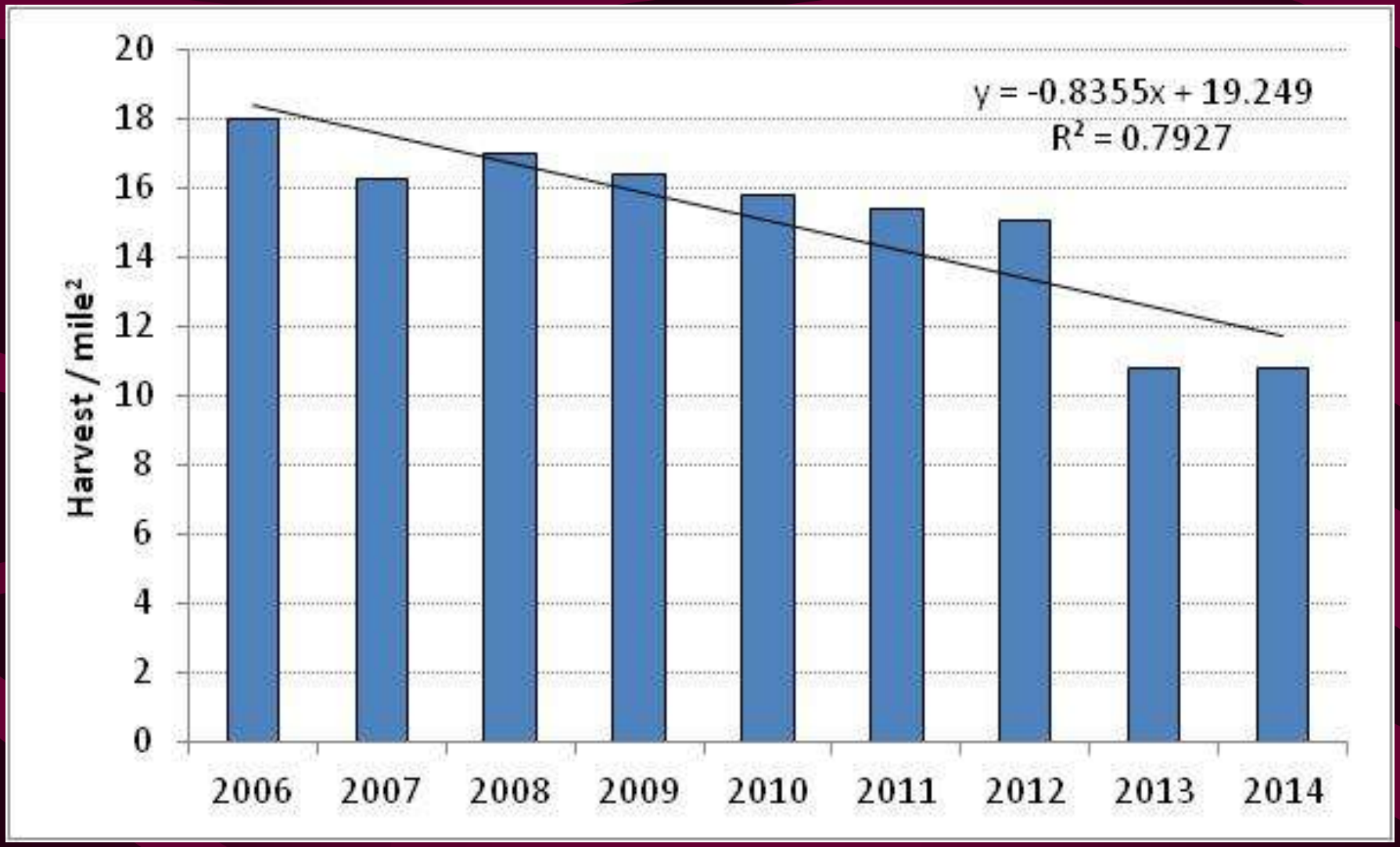
The number of deer harvested per square mile in the various geographical areas of Duluth during 2014. Overall harvest in the City was exactly equal to the 2013 estimate of 10.8 deer harvested / mile^2. Hot Spots were removed for this estimate. The higher harvest of 2014, along with the increase in DHA acreage after merging hot spots into some of the DHAs, resulted in the same estimate of harvest / mile^2

This map shows the number of deer harvested per square mile, within each of the DHAs during 2014.

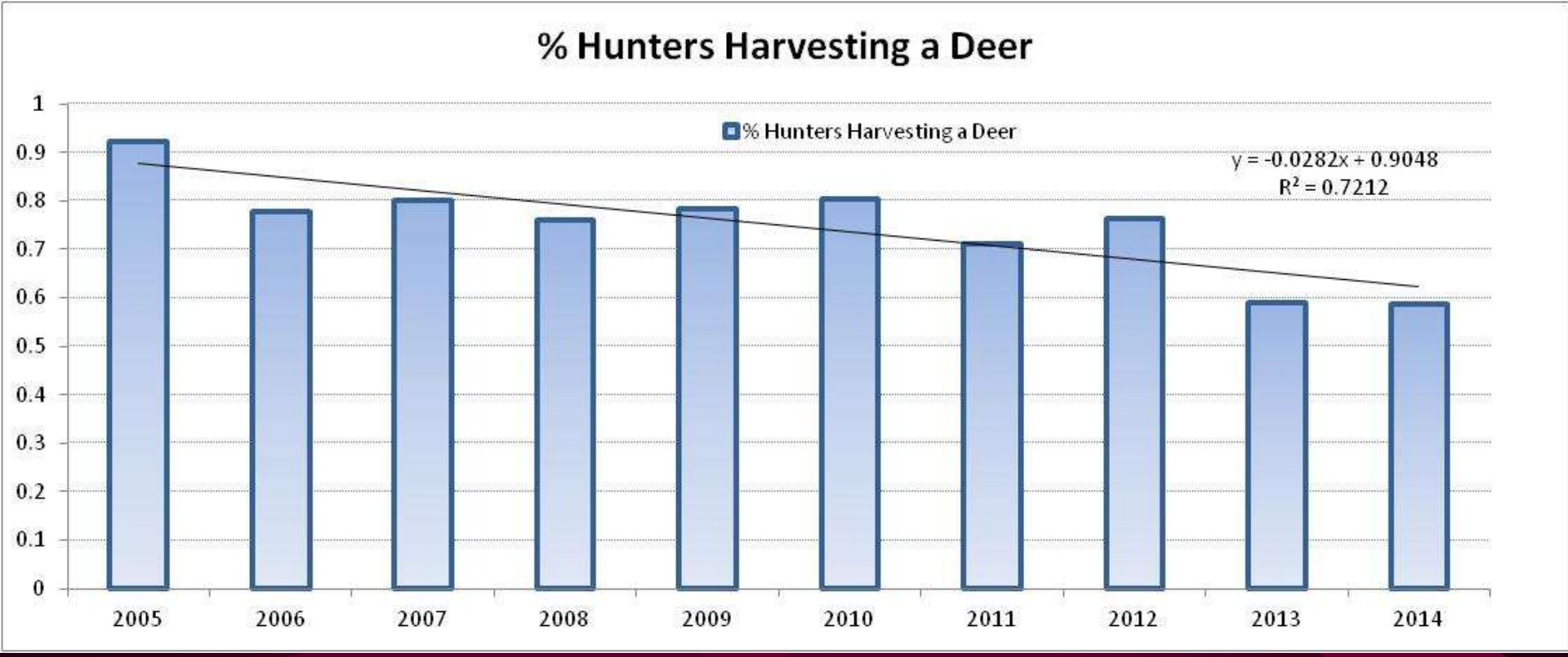
Map courtesy of Eric McPhee, GIS Guru Extraordinaire

Courtesy of B. Fehringer

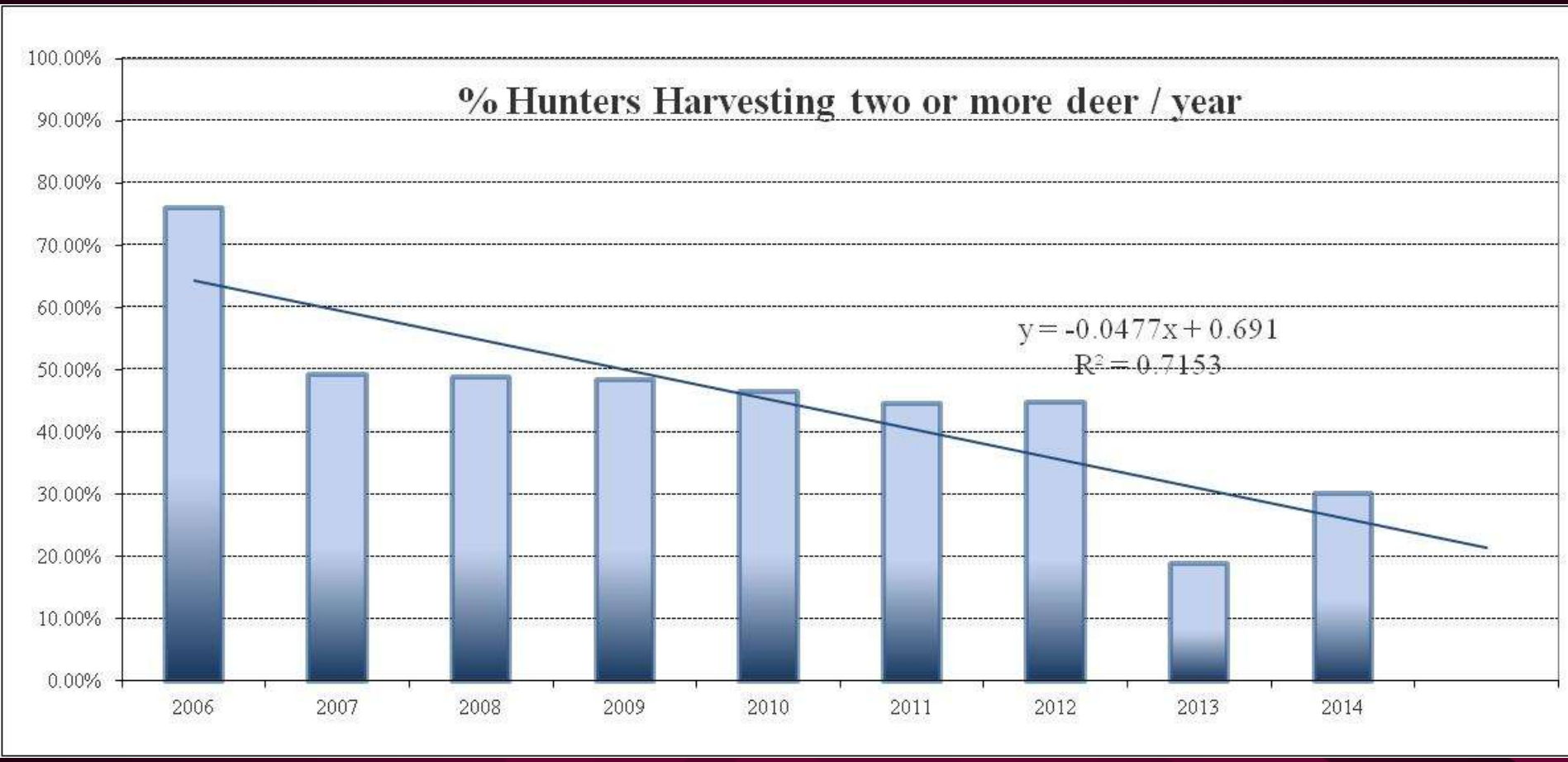
Harvest / mile^2 Last Nine Seasons



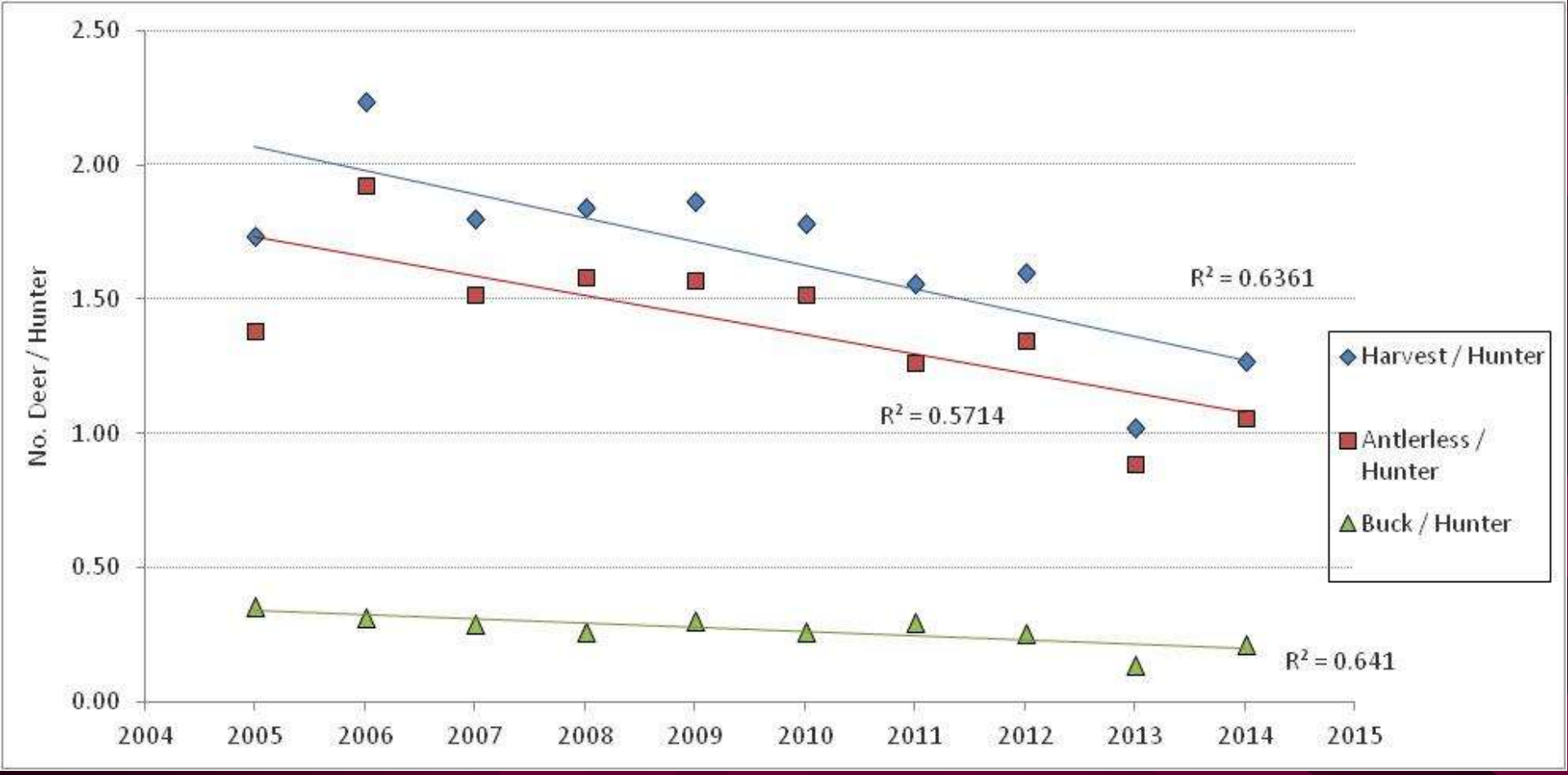
Harvest / mile^2 since 2006, showing a gradual decline in the overall harvest. 2005 data, the first year of the hunt, had slightly different DHAs, so this data is not presented.



- Hunters harvesting any deer, i.e. one or more, in Duluth has declined from 2005 (92.2%) to less than 60% over the last two seasons (58.5% in 2014). Should have been here the first season, right! ☺



For six seasons (2007 – 2012), the number of hunters harvesting two or more deer had been relatively stable. The decline in 2013 was the sharpest drop we've seen, and is the lowest percentage of hunters to harvest more than one deer, less than 20%. We had an increase this season, up to 30% of hunters harvesting more than two deer.

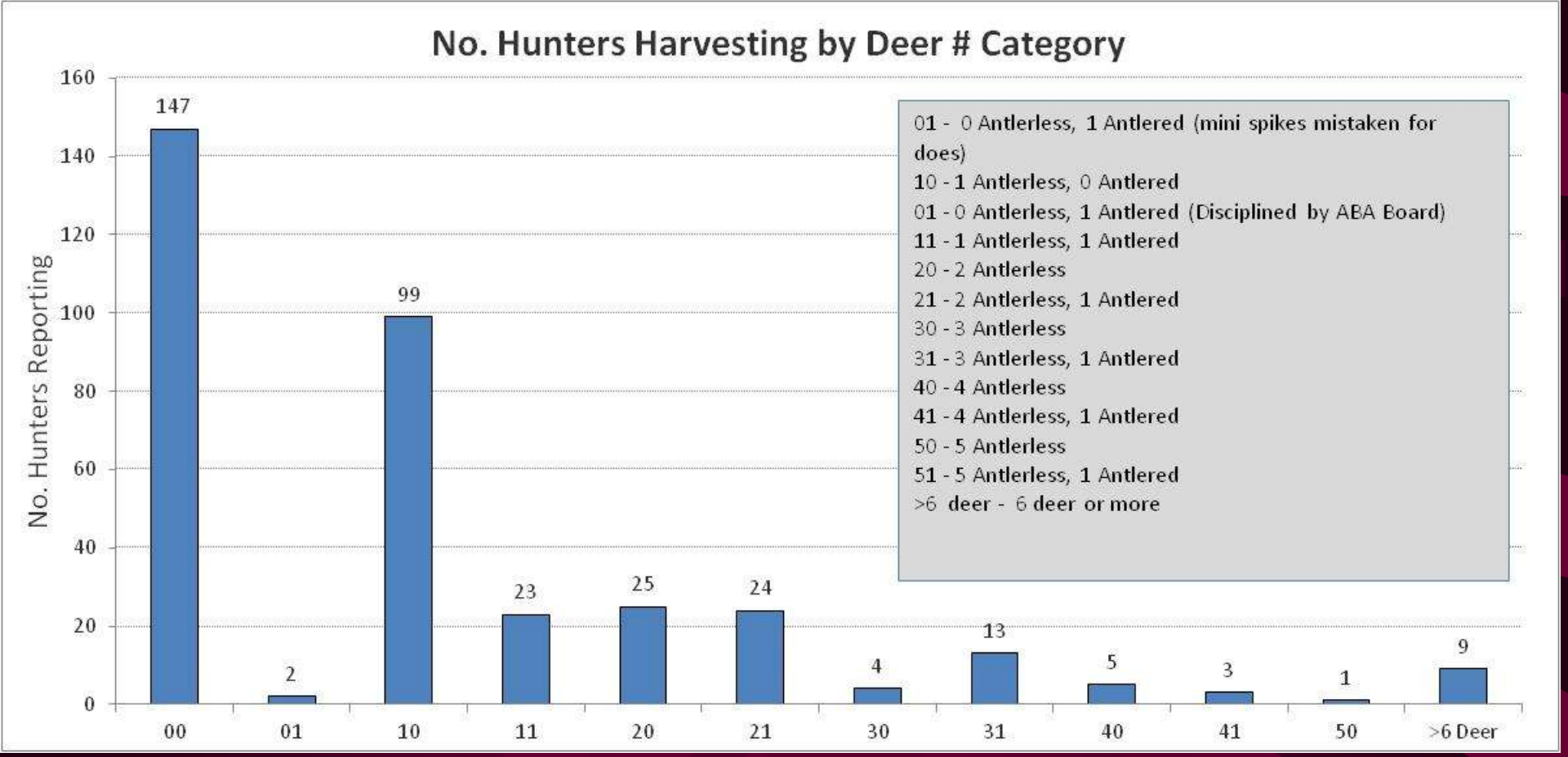


- Similar to the previous graphs, the total harvest per hunter and antlerless harvest per hunter has been declining steadily throughout the Hunt. Buck / hunter, while declining, is not significant.

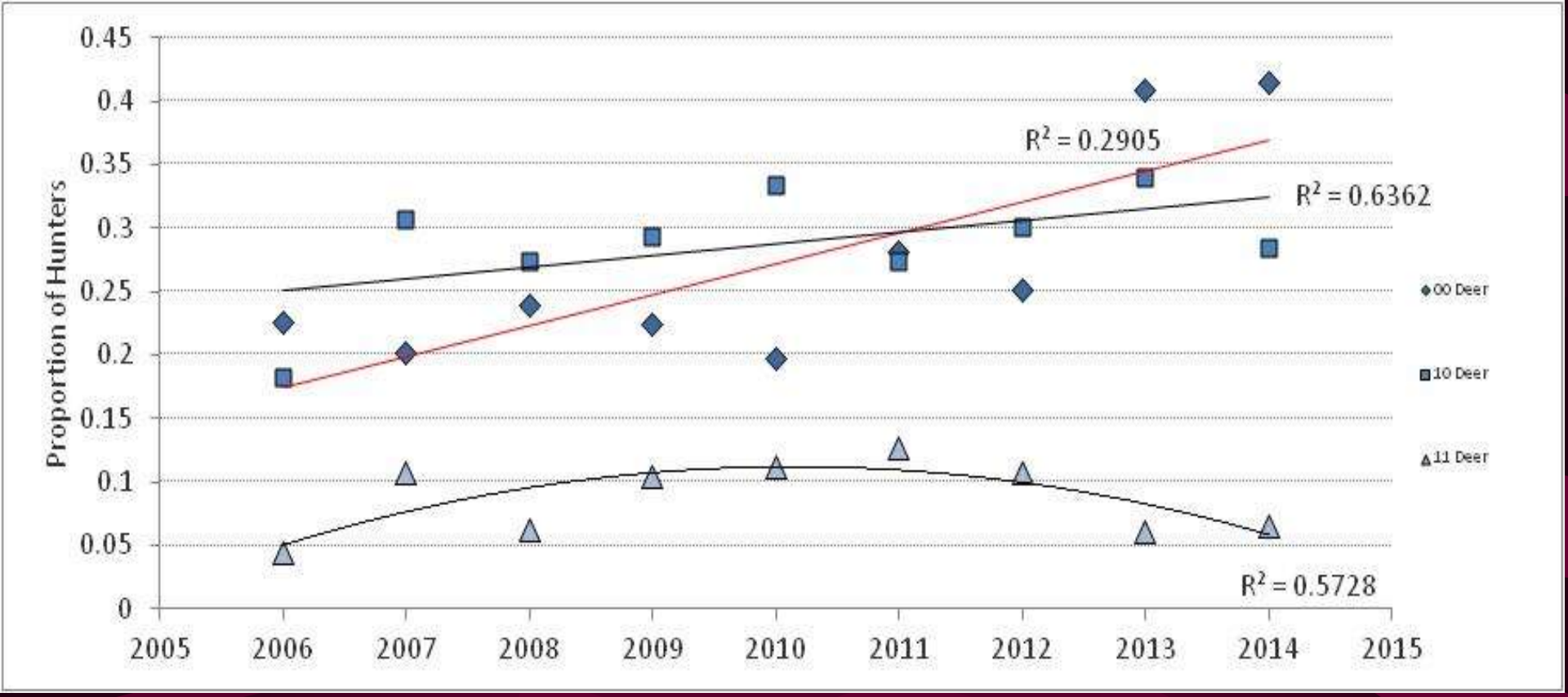
Harvest Categories

- Used throughout this presentation is a metric to describe each hunters harvest. I will use two digits XY for each hunter: X = the number of antlerless harvested, while 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.

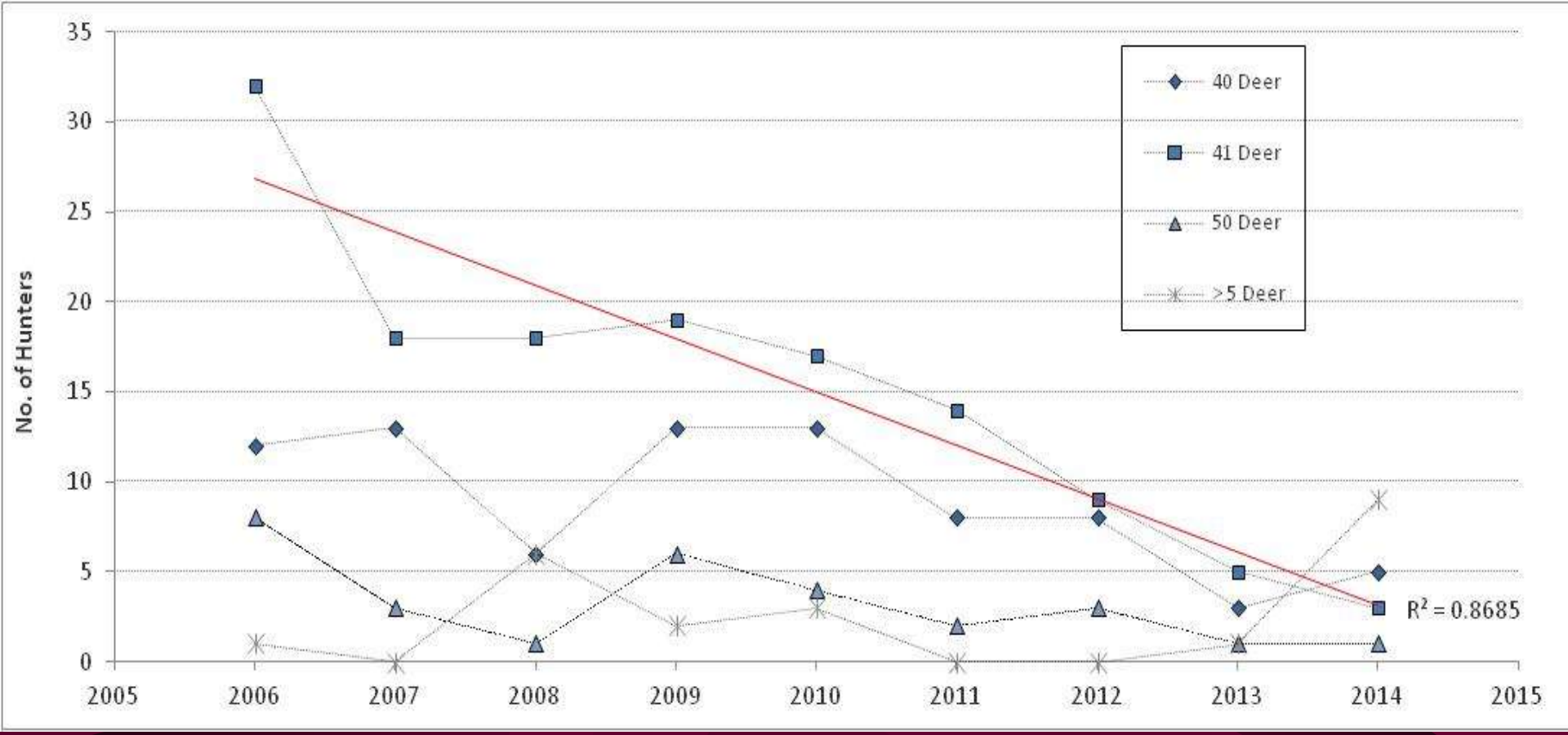
  Clear?



99 hunters registered one antlerless deer during the 2014 season, whereas 147 hunters failed to harvest a single deer. Only four hunters harvested all five (old benchmark) deer in Duluth, either four does and a buck (41), or five does (50). Nine hunters took advantage of the Metro Designation, and harvested 6 or more deer. These nine hunters harvested collectively sixty-one deer. Of the two 01 hunters (no antlerless & one antlered male), both accidentally shot spikes in low light, and were issued Disciplinary Letters by the ABA.



This graph shows that the number of hunters harvesting 0 deer (00, blue diamonds, red line), and one antlerless (10, blue squares, black line) has been increasing since 2006. Hunters harvesting one doe / one buck (11, green triangles) appears to have peaked in 2011, and has been on a decline since. The two different regression lines show the increase in the number of hunters that have harvested 00 and 01 deer since 2006. The increase in these categories comes as a result of a declining number of hunters able to harvest multiple deer (see next graph).



There appears to be a significant decline in the number of hunters harvesting > 4 deer (41 red line and 50). As these hunters fail to harvest more than 4 deer, they fall into the lower categories, leading to the observed increase in hunters within those categories (previous graph). Note that the red regression line shows a significant decline in those hunters harvesting four does and a buck, which is ultimately probably every hunters' goal.

- This year's 10.8 deer / mi^2 harvest rate was equal to the 2013 value, the lowest observed.
- Only 30.1 % of hunters harvested 2 or more deer.
  - Up from 2013's low of 18.9%
  - But down from the long term average.

Photo Credit: E. Larson

Relative Deer Numbers

- Year End 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 Observed”.
- Obviously analysis was limited to Returning hunters only, that actually had this experience to draw from.

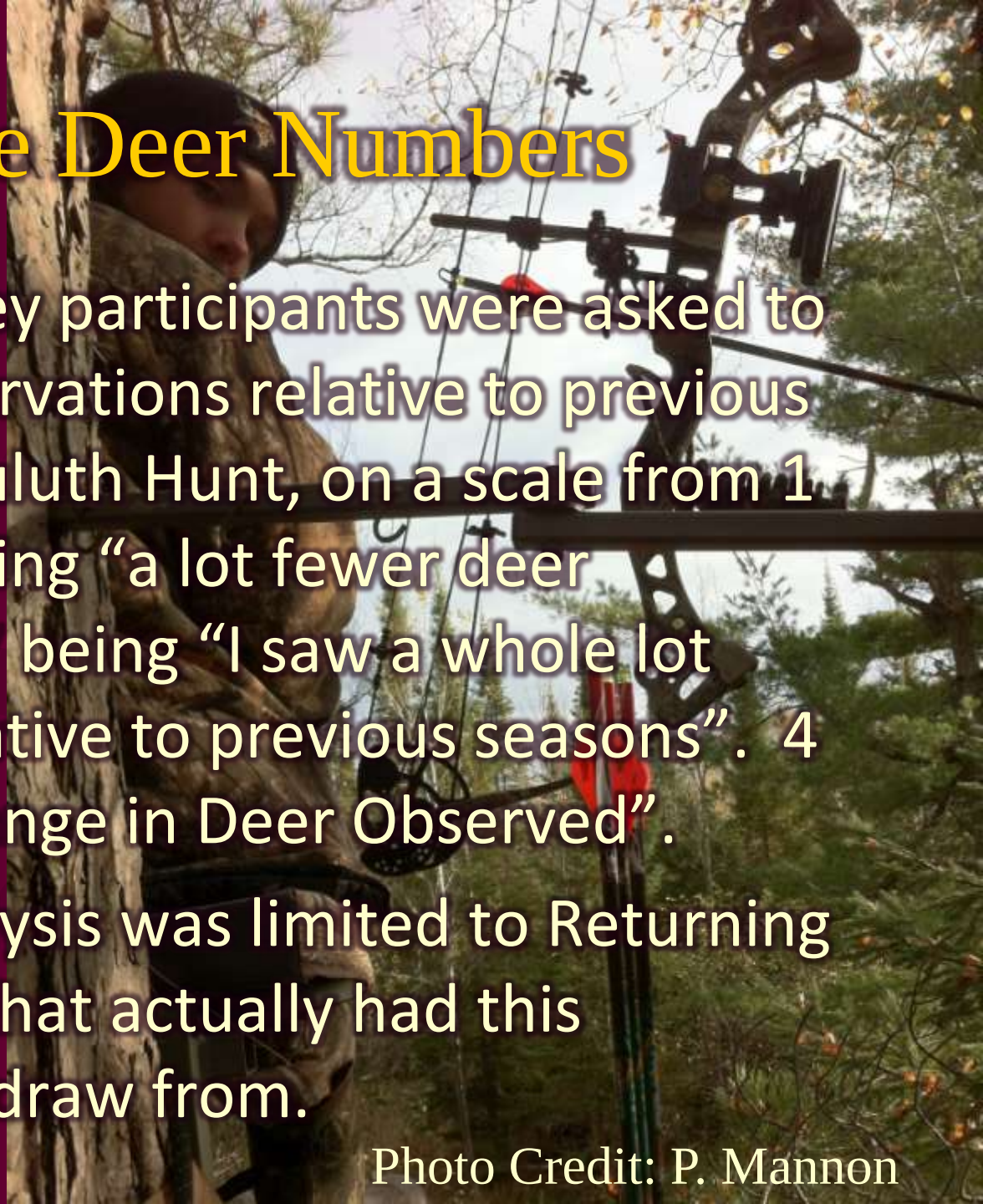
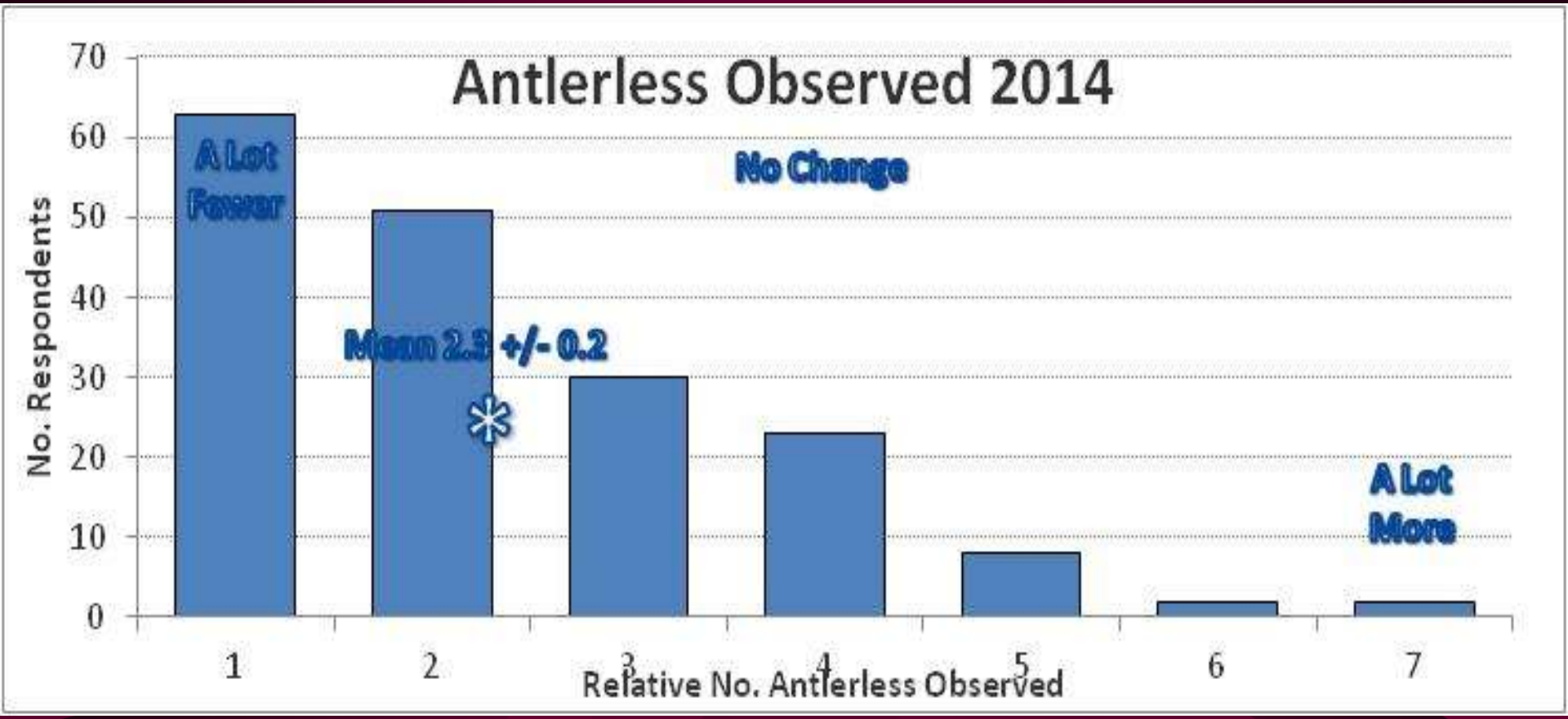
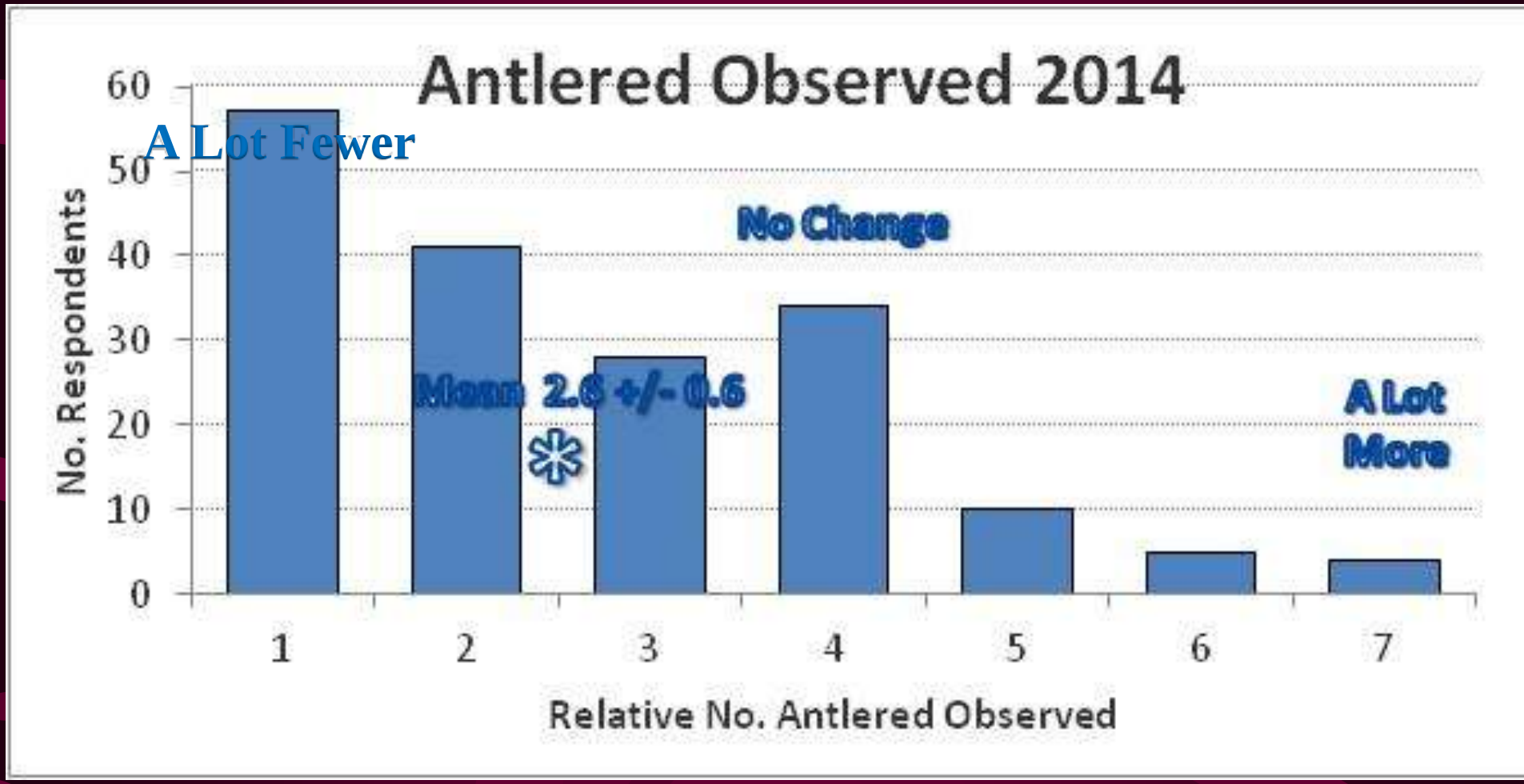


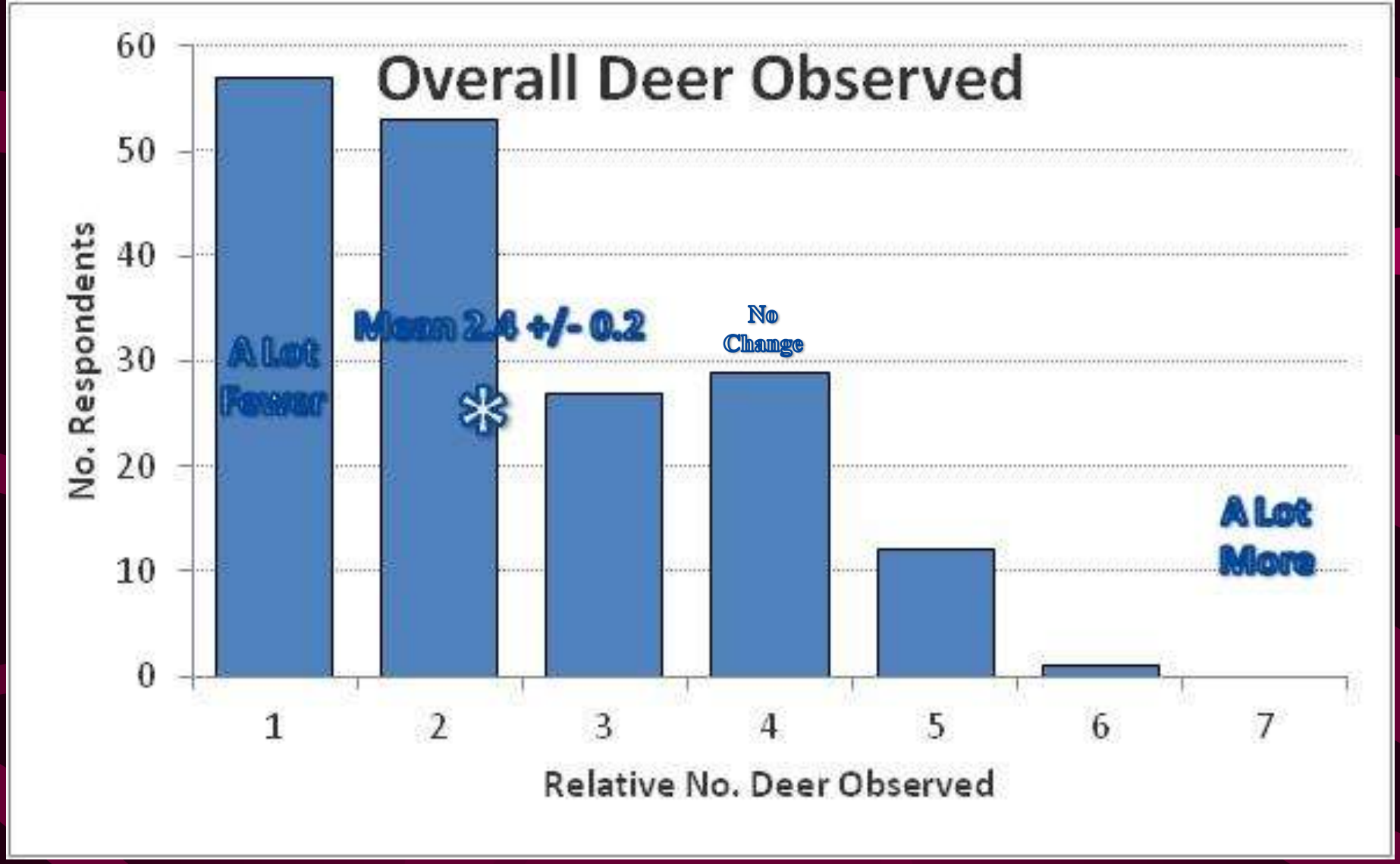
Photo Credit: P. Mannon



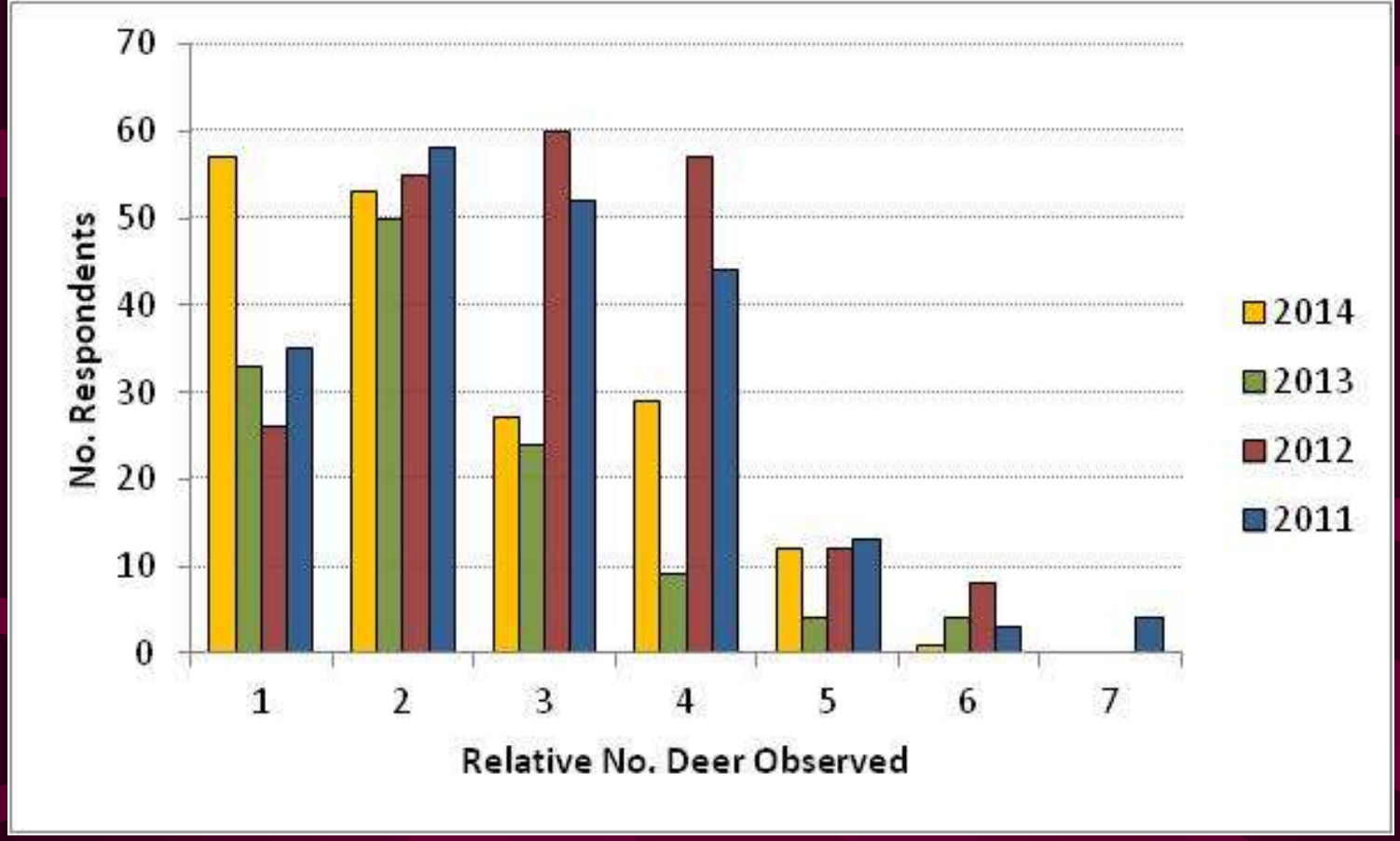
Returning hunters reported antlerless observations at 2.3 +/- 0.2 antlerless deer, indicating that returning hunters saw far fewer individuals than in years past. This is a difficult statistic to compare with other years' observations, as we are constantly comparing to the previous year and moving the benchmark. Interestingly, this is the third year in a row with the mean in the 2's, suggesting that our hunters feel that they are seeing fewer deer every year.



Returning hunters reported that they saw 2.6 +/- 0.6 antlered deer, indicating that returning hunters observed fewer antlered deer than in years past.

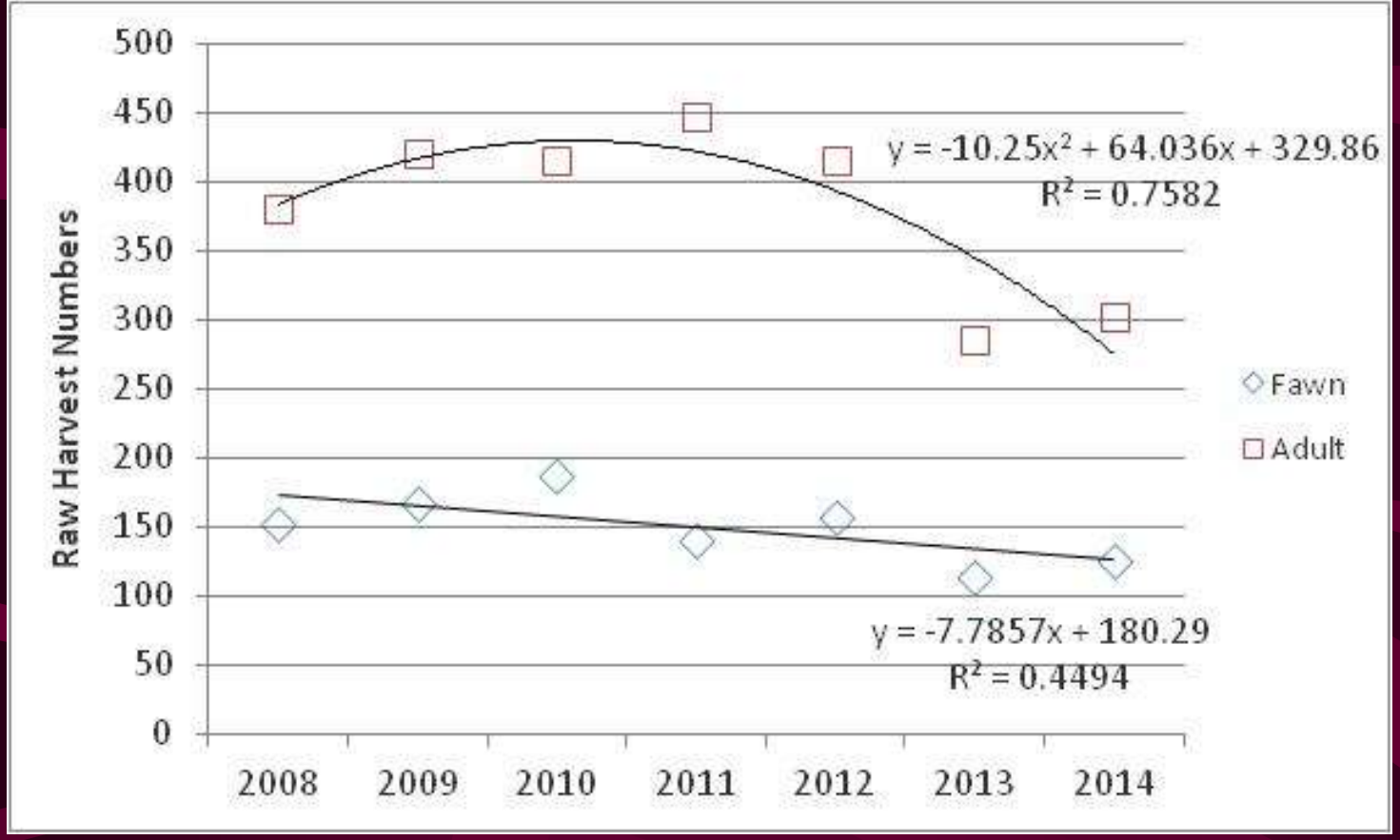


Average reported deer density was 2.4 +/- 0.2, indicating that overall, returning hunters reported seeing less deer than in years past.

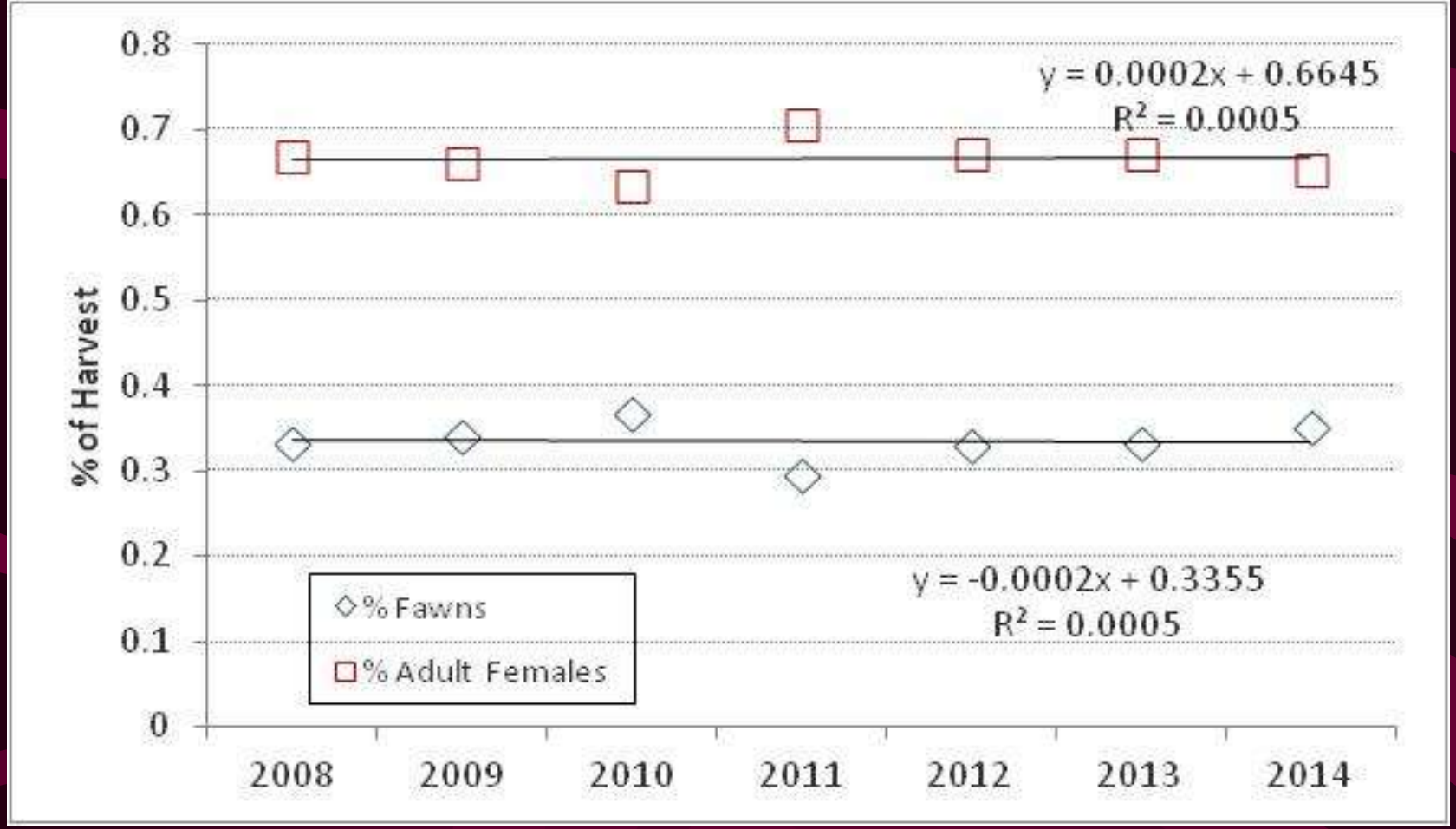


- Over the last four years of observations, hunters reported seeing the same number, or only slightly less, during the 2011 and 2012 seasons. In 2013 and again in 2014, hunters started reporting seeing less and less deer. Notice how the peaks shift to the right from the 2011 & 2012 years to 2013 & 2014, indicating a perception of fewer deer being observed.

- After the 2013 and 2014 winters, it is tempting to blame the weather on the shortage of deer in Duluth. Generally, difficult winters affect rut-weakened bucks the most. However, long winters, especially those that drag on into April (2013 & 2014), can affect the condition of the developing fawns. With late spring green-up and low quality food resources in April and May, pregnant does don't get the nutrition required to develop healthy fawns, leading to higher fawn mortality or a higher portion of very weak fawns born, and less fawns surviving and available to hunters in the fall. So with two difficult winters, 2012-13 and 2013-14, we hypothesized that fawn production may have been affected, and less available to hunters, which may partially explain the decline in harvest. That was a hypothesis tossed around between a few of us. Guess what? We have some stats to work thru . . .



- In pure raw numbers, the harvest of fawns by Duluth hunters has gone down, declining slightly since 2010 (blue diamonds). But so has the harvest of adult antlerless dindividuals, as seen by the decline observed since 2011, (red squares). So this may not mean anything more than our hunters have been having an effect on the population.



- For this data, I took the total number of antlerless by season, and set that at 100%, thus removing the buck portion of the harvest. Interestingly, there has been zero change in the portion of the antlerless harvest that has been fawns and adult does. Consistently, fawn harvest has been just about 33.4% annually. If winters had affected fawn births or survival, a decline in the percentage of fawns in the harvest would have been expected.

What's this mean?

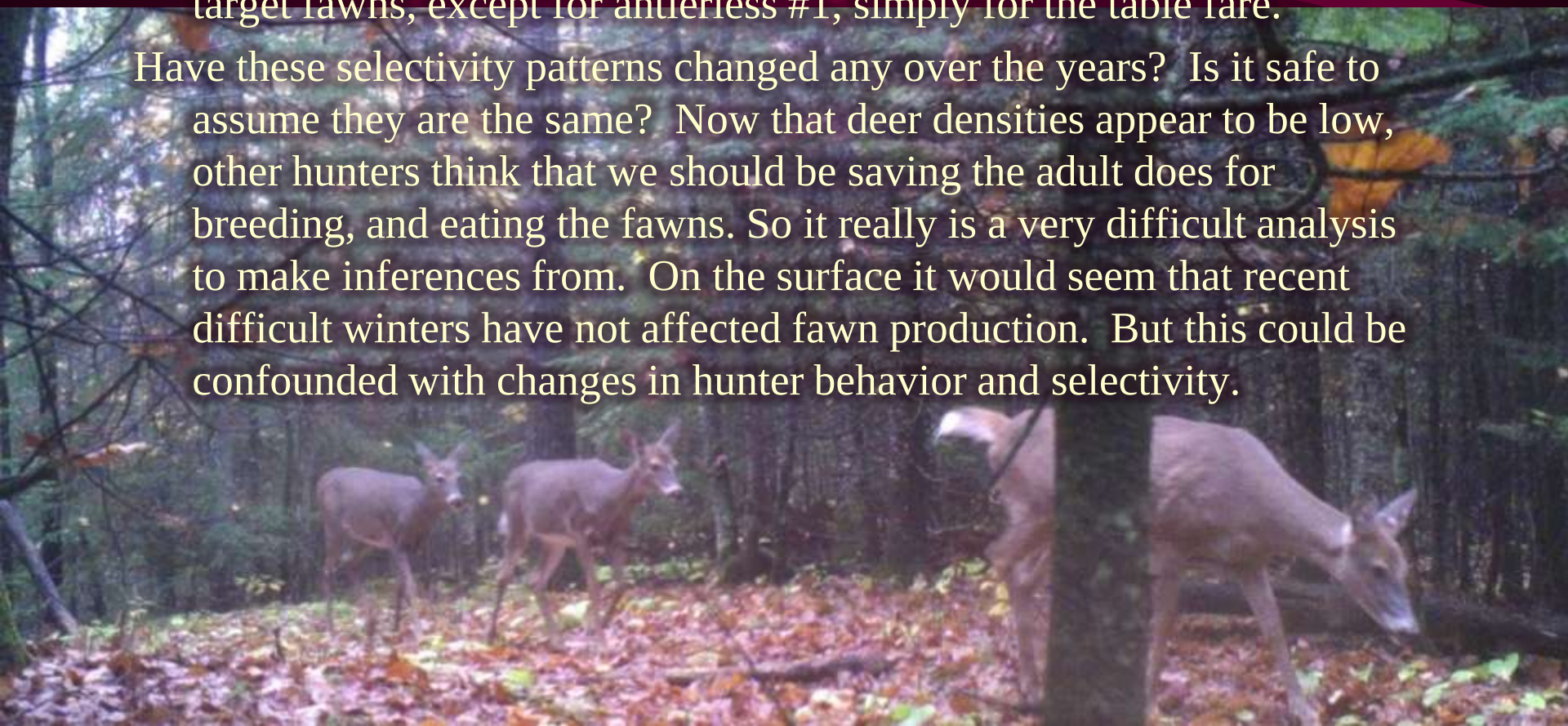
The fawn portion of the harvest has remained unchanged, over the seven seasons since the ABA started asking hunters to identify their antlerless deer as adult, fawn male, or fawn female. I wish we had asked for this data during the good old days of the first few seasons. Since a decline in fawn harvest was not observed, I suspect that winters may not be that tough on deer in Duluth, at least not to the point where fawn survival is affected. Along the hillsides of Duluth, snow depth isn't as deep as it is outside of Duluth. Bird feeders, grain yards, back yards, and illegal feeders may provide enough food to sustain deer thru long winters, and provide adequate nutrition to does with developing fetuses. Adequate thermal cover and the absence of predators, e.g. wolf, may ultimately mean that winters just don't get tough in the urban setting of Duluth. Thus, I think the observed decline in harvest over the last two seasons may be attributed to Duluth hunters and the 5200 deer removed over the last ten years.

Photo Credit: L. Birnbaum

Thoughts on Fawn Harvest

One thing that I wasn't able to tease out with this analysis of fawn harvest is the topic of hunter selectivity patterns, and how they may or may not have changed over the course of this hunt. Many of our hunters refuse to shoot fawns. It's the same amount of effort to butcher either an adult or fawn, but half of the meat on a fawn. Others specifically target fawns, except for antlerless #1, simply for the table fare.

Have these selectivity patterns changed any over the years? Is it safe to assume they are the same? Now that deer densities appear to be low, other hunters think that we should be saving the adult does for breeding, and eating the fawns. So it really is a very difficult analysis to make inferences from. On the surface it would seem that recent difficult winters have not affected fawn production. But this could be confounded with changes in hunter behavior and selectivity.

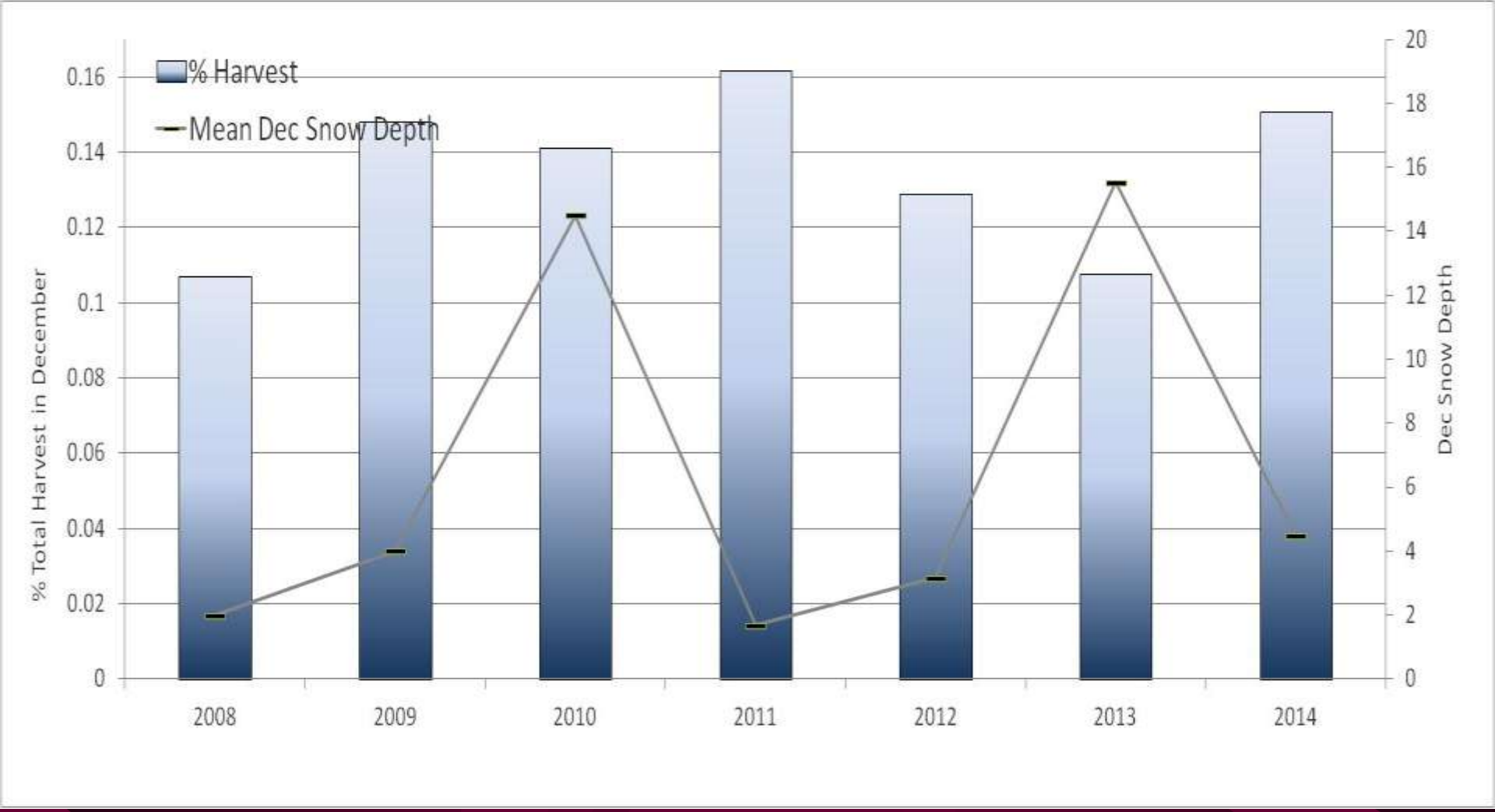


Thoughts on Tough / Nice Winters

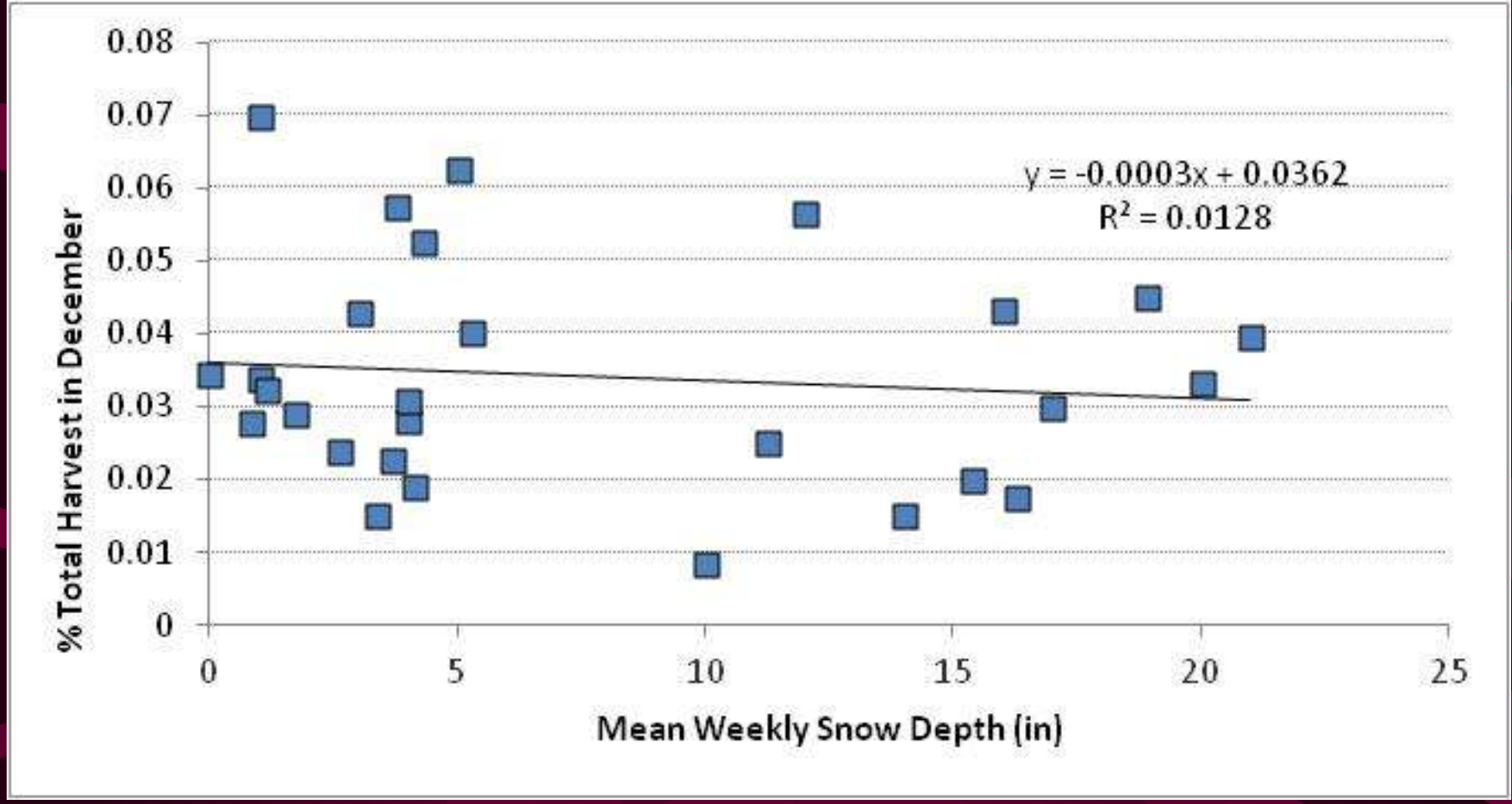
- There has been some discussion that the increased harvest this year may have had something to do with the mild December weather we experienced. Perhaps if it isn't so brutal outside, more hunters would sit out and try to fill tags.
- Before you say "Duh! No kidding!", let's see what the numbers say:

December Snow Depths and Temperatures

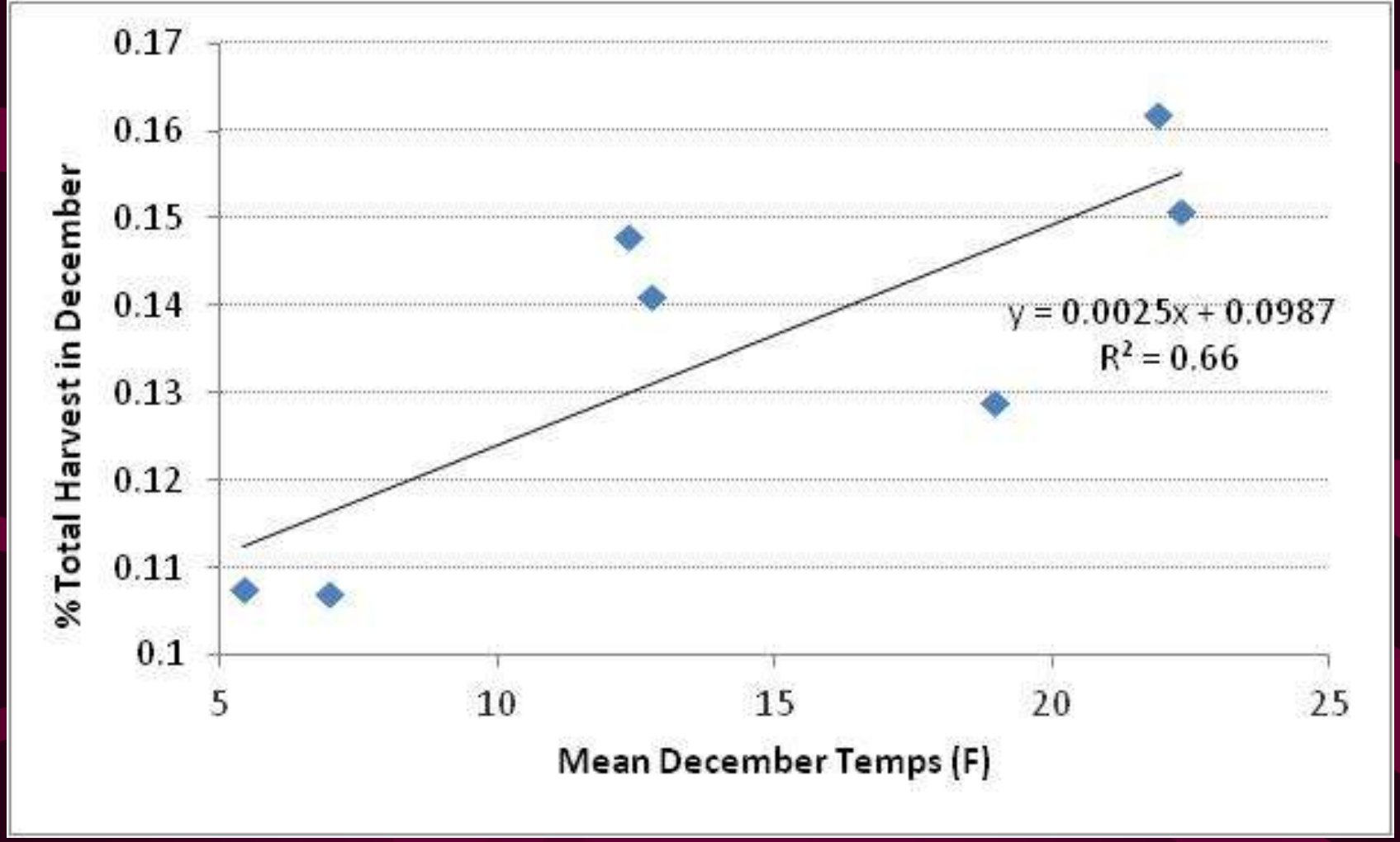
- I took the December Harvests for the last seven years and calculated the % of the total annual harvest that occurred during December. I then compared that harvest to mean December snow depth (in), average minimum December temps (morning and evening sits) and average daily temps.



- With the exception of 2010, it would be tempting to infer that snow depth may influence hunter access to the woods. Certainly the higher 2013 snow depth may have contributed to the lower harvest compared to 2014.



- This is harvest data from 2008 – 2014, by week. The percentage of the total harvest that occurred in each week of December is plotted along with that week's mean snow depth, as obtained from the MN Climatological website and reported from the Duluth Airport. There does not appear to be much of a relationship between snow depth and harvest. Lots of variables likely influence harvest in December other than just snow depth. But it appears that our hunters are not losing access to their stands in the range of snow depths observed during the seven years of this analysis.



- This is 2008 – 2014 average December temperatures compared to the % of the total harvest that occurred in December of that year. There seems to be some relationship between colder months and lower harvests. This is probably not cutting-edge science. Who wants to sit out when it's super cold at the end of the season?

Private Lands

The Duluth City Council has opened up private lands within the DHAs to our bowhunters. The Council could have limited hunting solely upon public lands owned by the City. But to increase harvest, we can access any private property, with permission, within any of the DHAs.

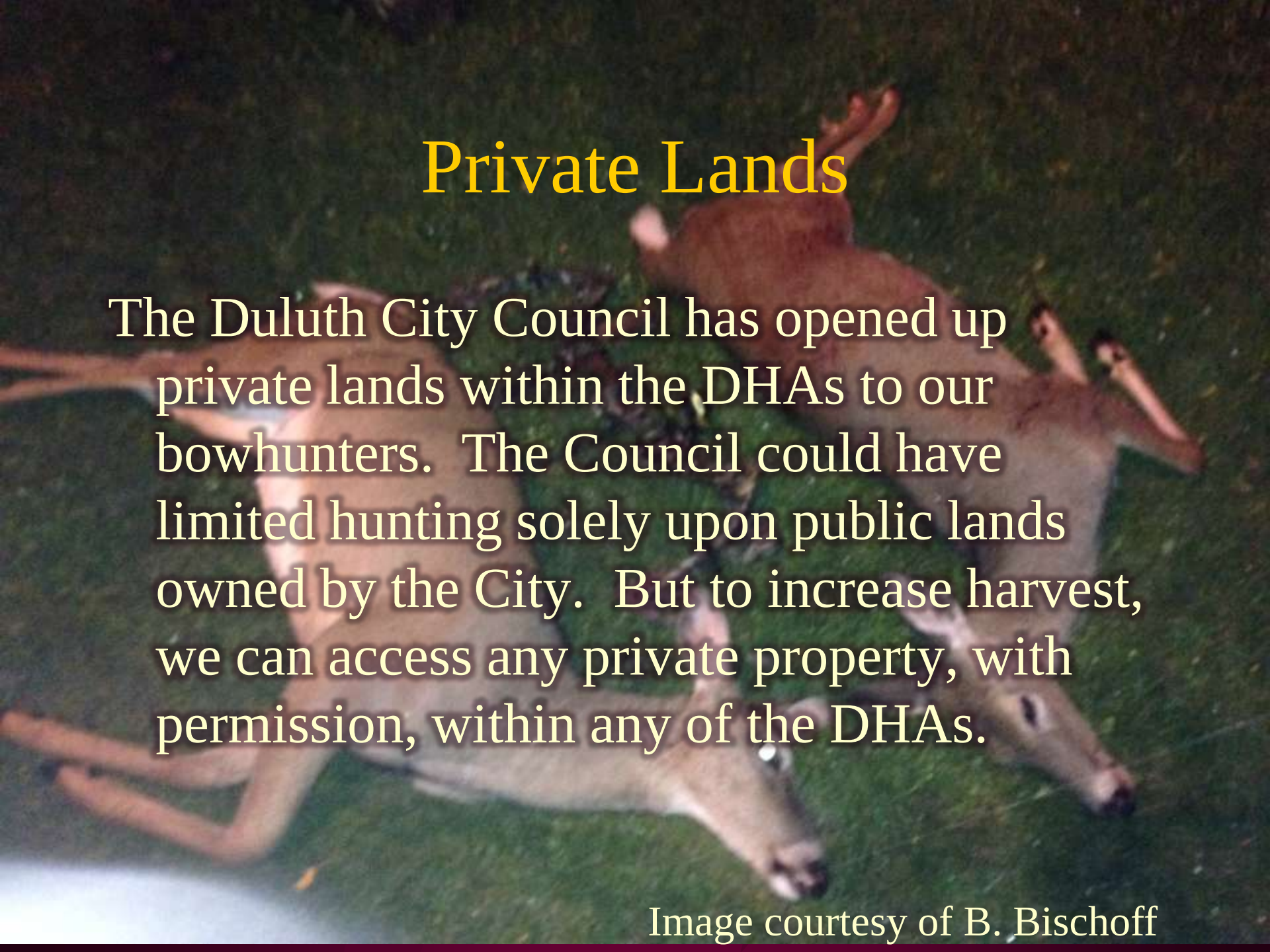


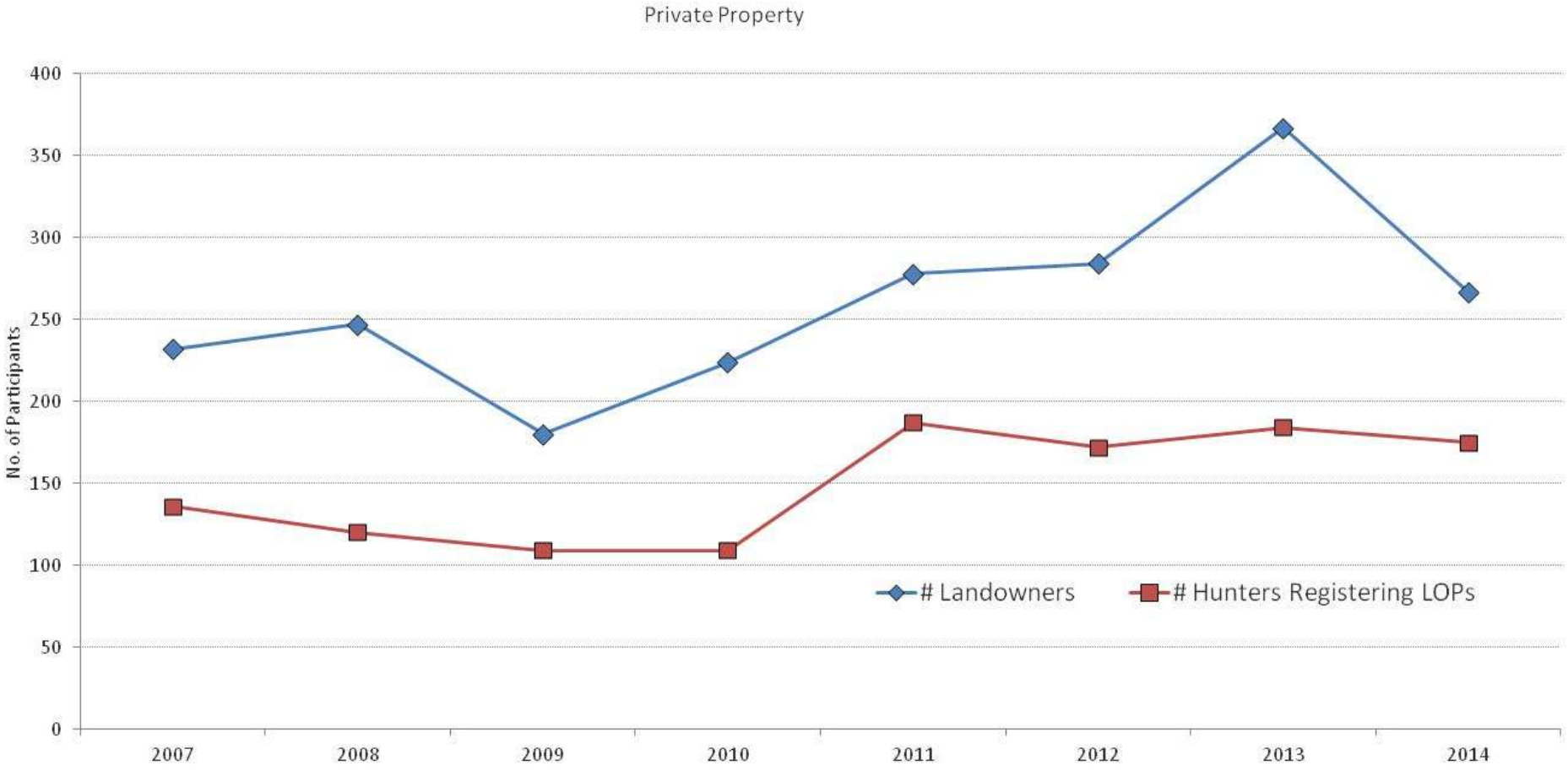
Image courtesy of B. Bischoff

Public vs. Private Lands

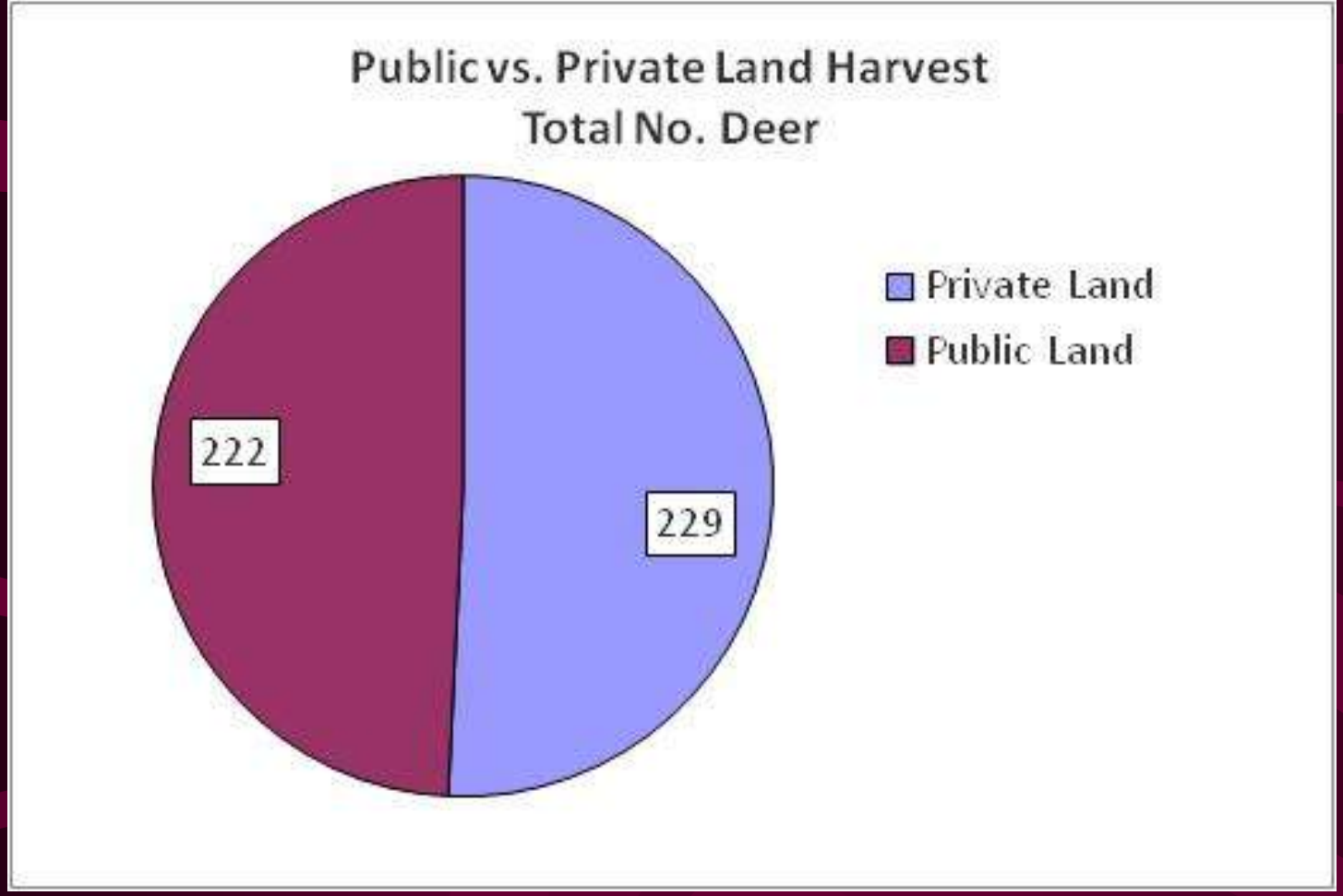
- 49.2% of harvest from Public Lands
- 50.8% of harvest from Private Land
- Demonstrates importance of forging positive relationships with Duluth property owners!

- 267 Different properties registered in 2014
- 175 Hunters turned in LOPs
  - Several Warnings were issued to hunters that failed to register private lands with the City.

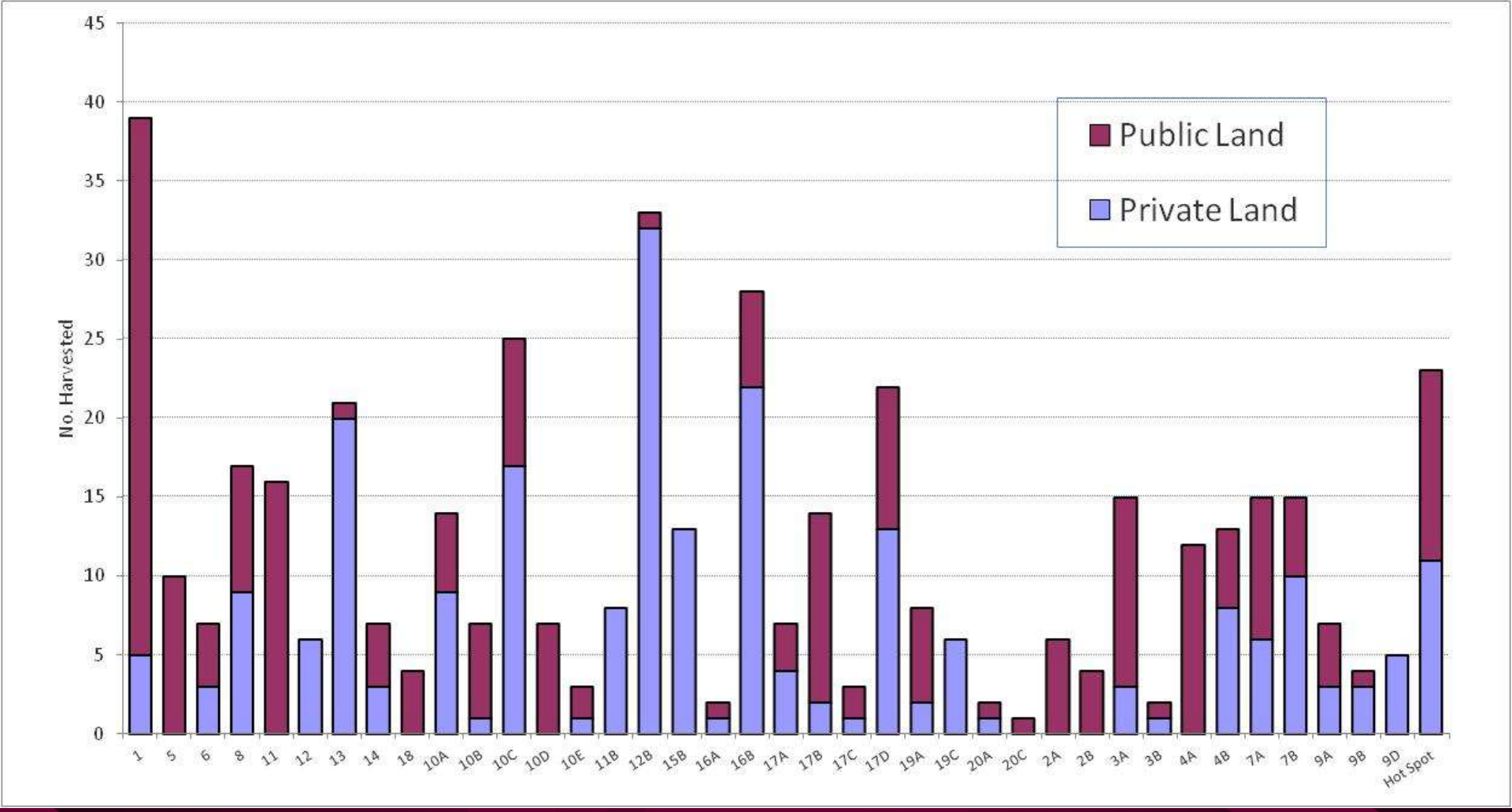
Image courtesy of T. Marino



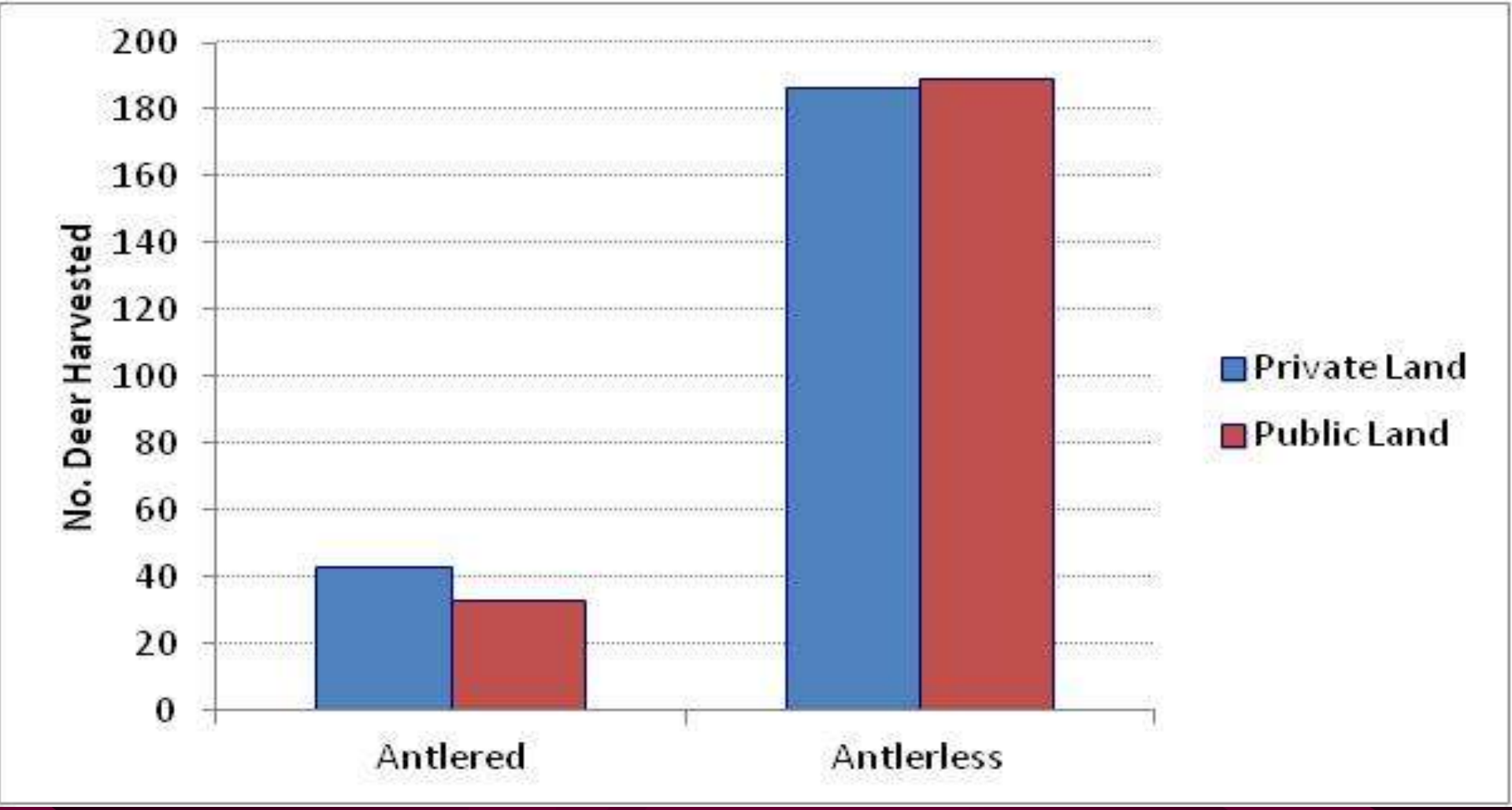
- The apparent number of landowners that granted access to their property fell by 100 landowners, from 367 in 2013 to 267 this season. Is this true, or did hunters get lazy about registering their property? Hopefully this doesn't indicate a declining support of this hunt by landowners. Be glad you weren't caught by Duluth PD or DNR. The number of hunters that registered property has been stable now for four seasons



More deer were registered from private land in 2014, the first time in the ten year history of this hunt. Previously, public land was where more than half of the harvest took place. This demonstrates that we still have the support of Duluth landowners, who allowed our hunters access to their private property.



The number of deer harvested on public and private lands within each DHA in 2014. This is the first season where harvest was higher on private land than from the public properties. Perhaps we have educated deer on public land, and private lands will become increasingly more important to the continued success of this hunt. Note that these numbers have not been standardized to the amount of available public property. 19C is almost entirely private. 11B & 13 have very little public property.



- The number of antlered deer harvested was higher on private lands this season. Harvest of antlerless was essentially the same between public and private lands.

Private Properties

- 2014 saw an apparent decline in participation by private landowners allowing Duluth hunters access to their properties.

- The ABA Board strongly encourages you to share your lands with other hunters **IF** you have more than you can reasonably hunt. If you can't devote enough time to serve the landowner, please consider relinquishing some properties in 2015. We're here to remove deer for the citizens of Duluth. Having 27 pieces of property, and only enough time to harvest two or three deer, doesn't accomplish this mission. Find a buddy, and share some stands to help remove more deer.

- There was a concern that hunters with access to private lands had an unfair advantage for buck harvest. While antlered harvest was slightly higher on private properties, it wasn't significant.

Photo Credit: D. Ribich

Hunter Demographics

- So, who hunted this year? How many returning and new hunters? How did each group fare compared to the others?

Photo Credit: D. Ribich

Returning vs. New Hunters

	# Participating in 2014	# Antlerless	# Antlered
Returning	302	347	69
New	53	24	3

Returning vs. New Hunters

- **190 of 302 Returning Hunters Harvested:**
  - **347 Antlerless**
  - **69 Antlered**
  - **62.9% of Returning Hunters registered a deer**

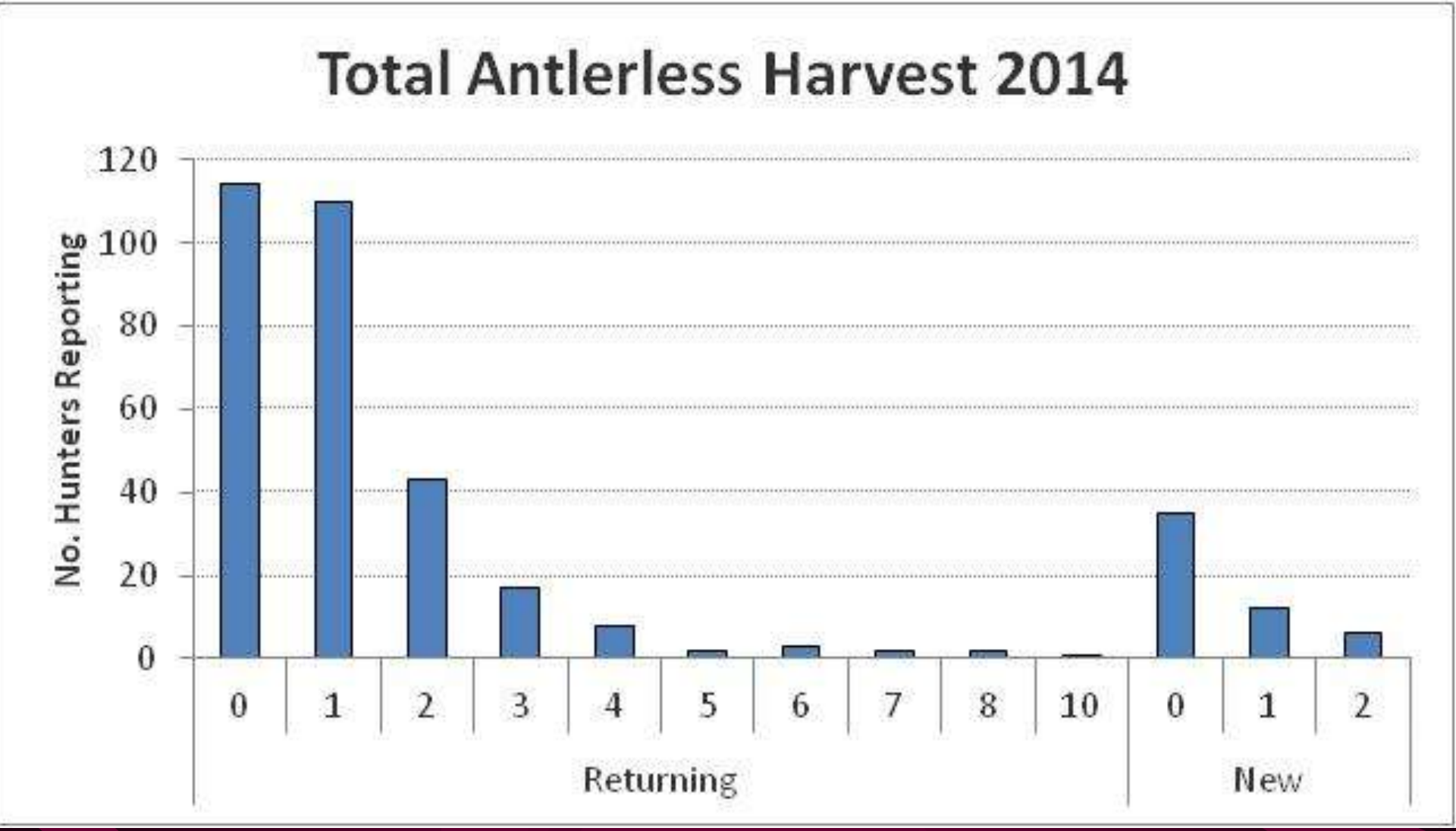
- **18 of 53 New Hunters Harvested:**
  - **24 Antlerless**
  - **3 Antlered**
  - **33.9% of New Hunters registered a deer**

Photo Credit: L. Birnbaum

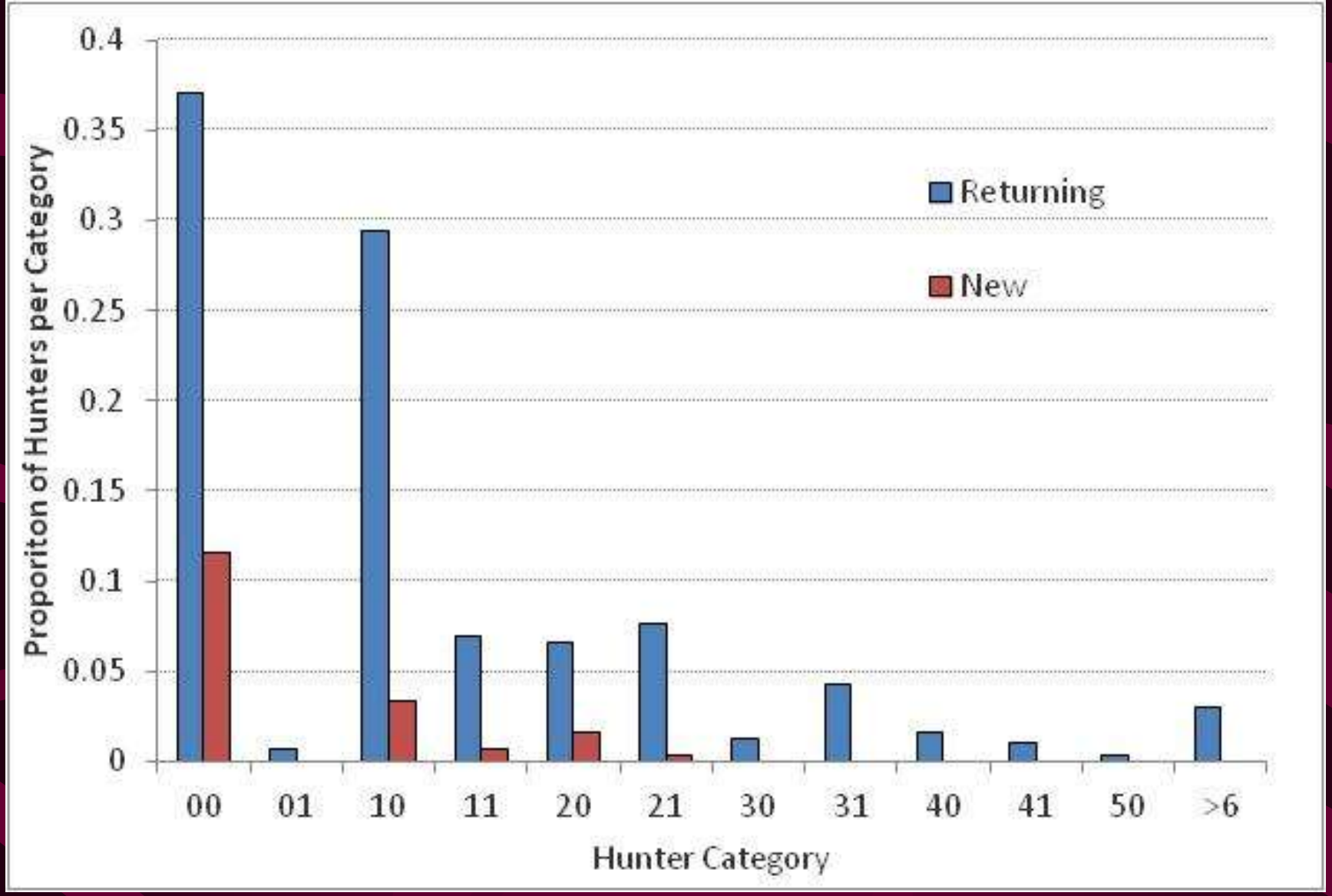
Returning vs. New Hunters

- Returning Hunters harvested:
  - 1.38 ± 0.19 Total deer / Hunter
  - 1.15 ± 0.17 Antlerless / Hunter
- New Hunters harvested:
  - 0.51 ± 0.22 Total deer / Hunter
  - 0.45 ± 0.19 Antlerless / Hunter
- Statistically significant differences were observed in total harvest ($P < 0.0001$) and in antlerless harvest ($P < 0.0001$). In other words, Returning Hunters harvested antlerless at a much higher per hunter rate than did New Hunters.

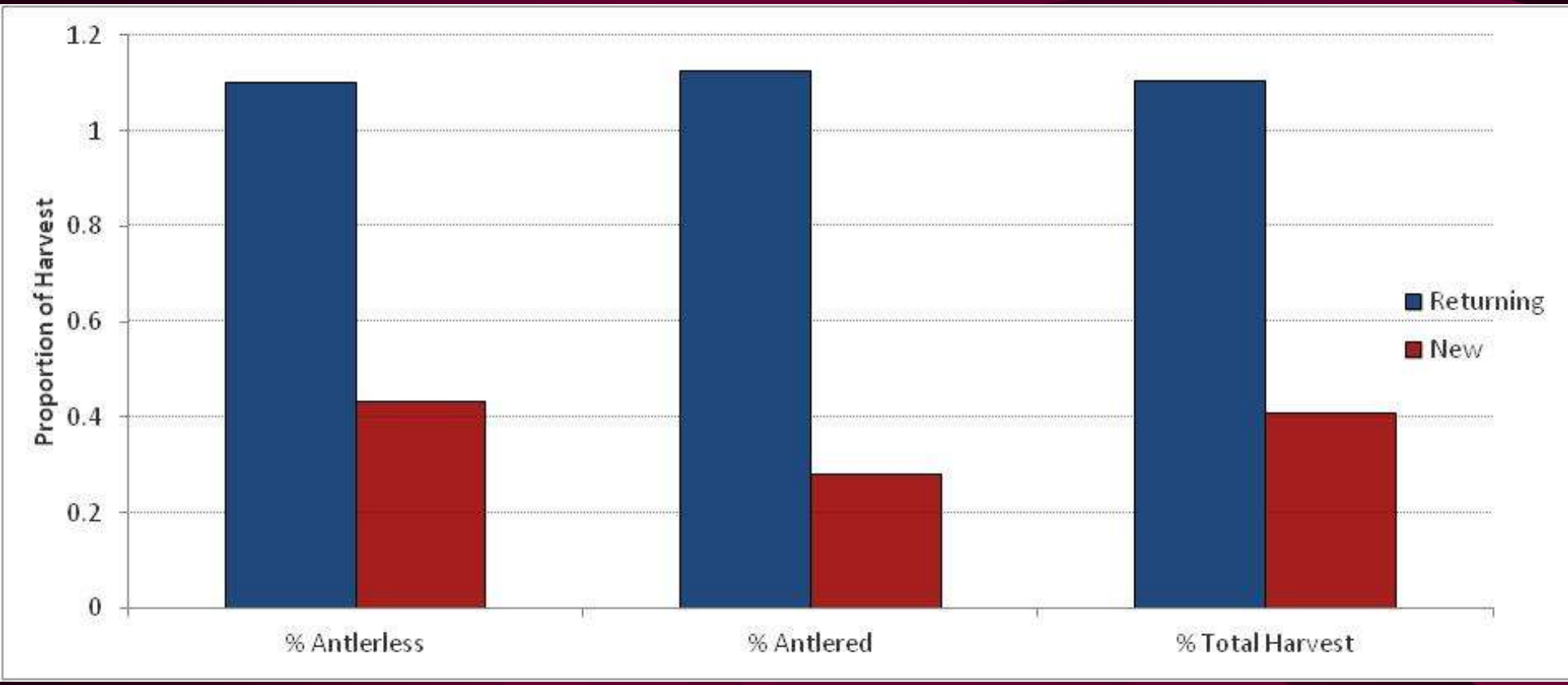
Image Courtesy of B. Sobczak



Number of antlerless harvested by New and Returning Hunters. 112 returning hunters and 35 new hunters failed to harvest a deer during the 2014 season. It was a tough season by all accounts.



Here, the number of New and Returning hunters were separately normalized to 100%. Thus, approximately 37% of all Returning hunters didn't shoot a deer in 2014. However, 29.5% of Returning hunters did shoot one antlerless (10), while 3.3% of New hunters registered one antlerless (10).



This data adjusts for the number of New and Returning hunters participating. It is further described in the next slide.

Previous Slide

- In the previous slide, hunter numbers were normalized to 1.0, or 100%, by hunter type, and demonstrates the contributions by both New and Returning hunters.
- Values depict the relative contribution of each hunter type to the total harvest. Thus, if each hunter type harvested deer in the exact proportion to their participation number, then the value would be 1.0. Values greater than 1.0 indicate that the hunter type contributed in a higher proportion than their participation, while values less than 1.0 indicates that harvest was expected to be higher based upon the number of participants.

- In proportion to their numbers, harvest of antlerless was slightly higher for Returning hunters (1.1) than for New hunters (0.43).
- This same trend was observed where Returning hunters harvested antlered individuals in a higher proportion than their participation rate (1.13) vs new hunters (0.28).

New vs. Returning Hunters

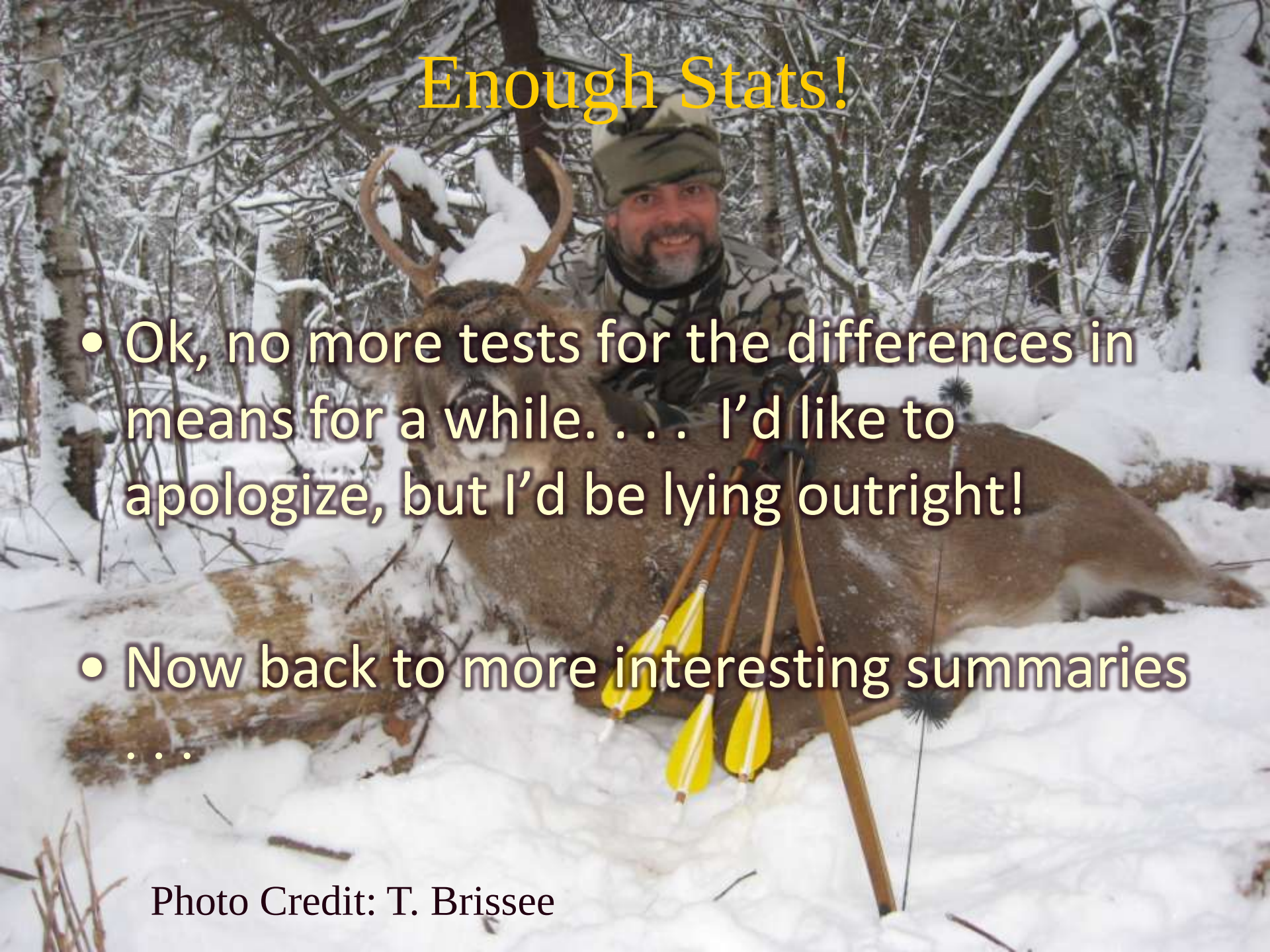
- "Home Field Advantage" hypothesis for Returning Hunters relative to New ones has been suggested in the past.

- Differences in harvest between the two groups of hunters may be due to the learning curve for New hunters. Returning hunters have the advantage of past experience and first-hand knowledge of deer movement within their DHAs; they probably know more landowners; they may have an advantage.

- 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.

Photo Credit: M. Bissonette

Enough Stats!

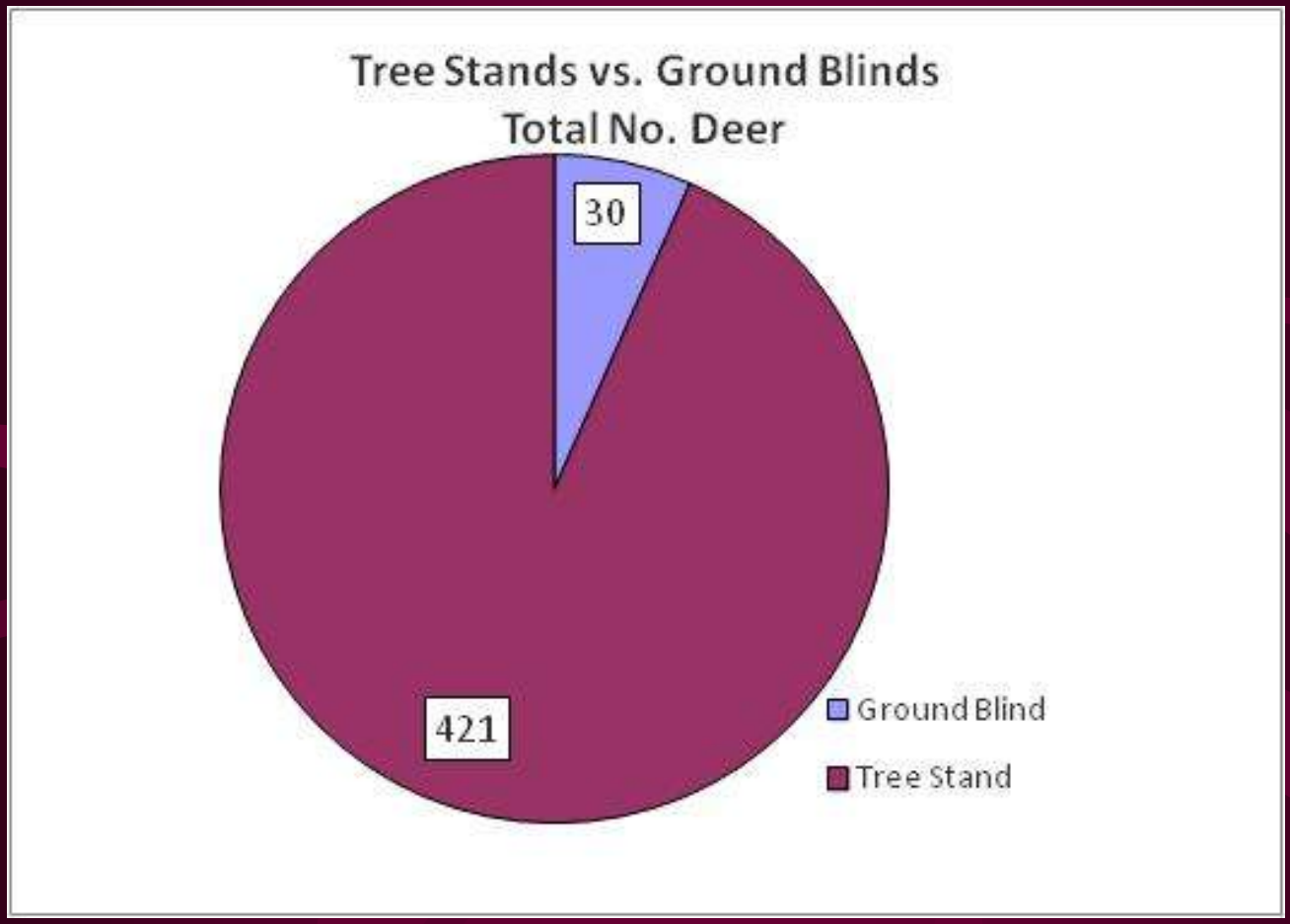


- Ok, no more tests for the differences in means for a while. . . . I'd like to apologize, but I'd be lying outright!

- Now back to more interesting summaries . . .

Photo Credit: T. Brissee

Harvest from Tree Stands vs. Ground Blinds



Zero incidents reported. Thank you for staying safe!!
For those keeping track, this is the most deer harvested from ground blinds to date.

Venison Donation

- 231 harvested deer were reported as "Donated"
  - Includes Food Shelf, friends, family, etc.
    - 304 in 2009 (51.7%)
    - 373 in 2010 (61.8%)
    - 340 in 2011 (57.9%)
    - 308 in 2012 (53.7%)
    - 232 in 2013 (58.1%)
- All or part of 51.2% of harvested deer were donated.

Mandatory Registration

- Rules Manual states that hunters have 48 hours to register their harvest.
- How'd we do?
- Much better than in years past! Thank You!

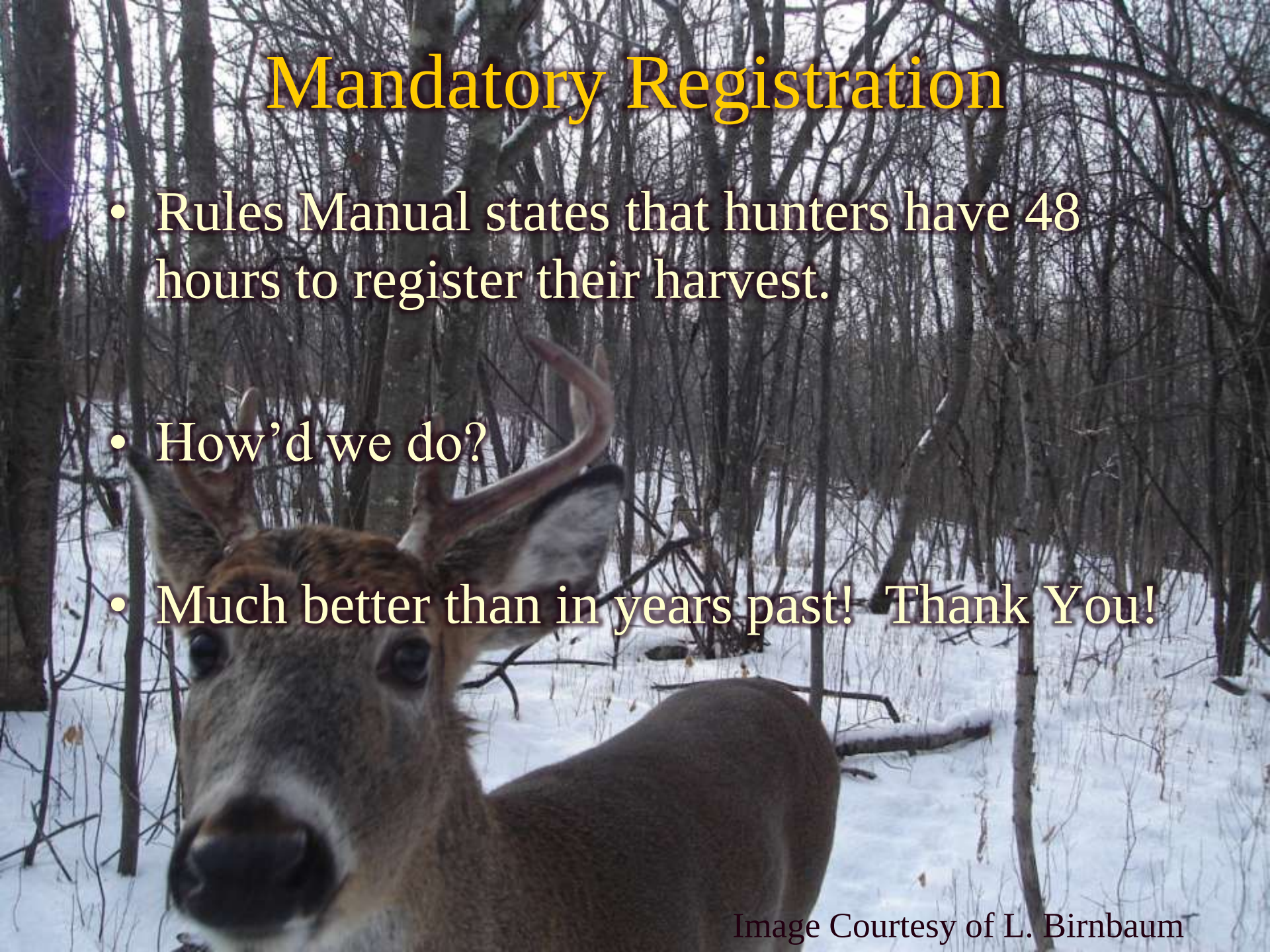
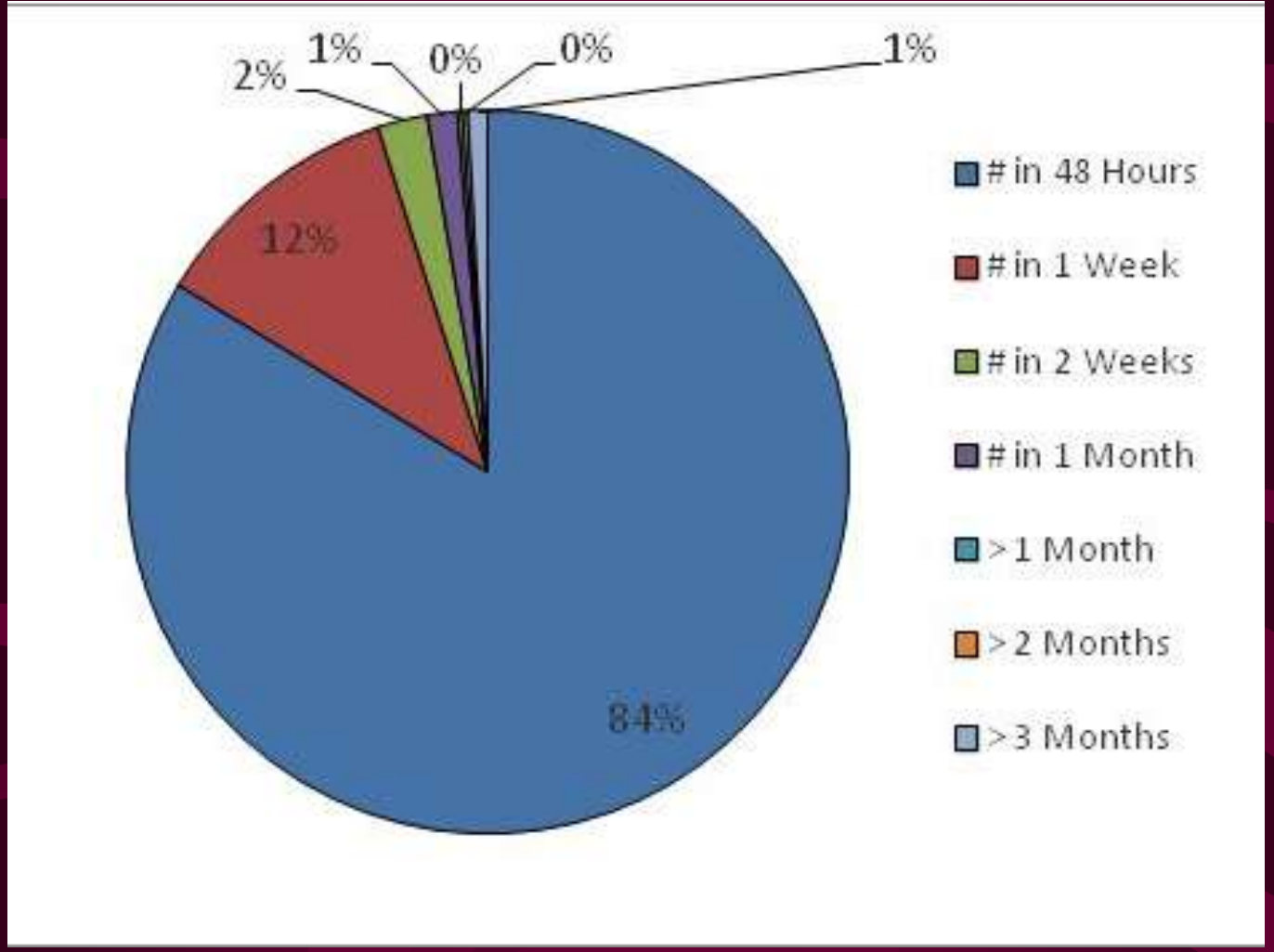
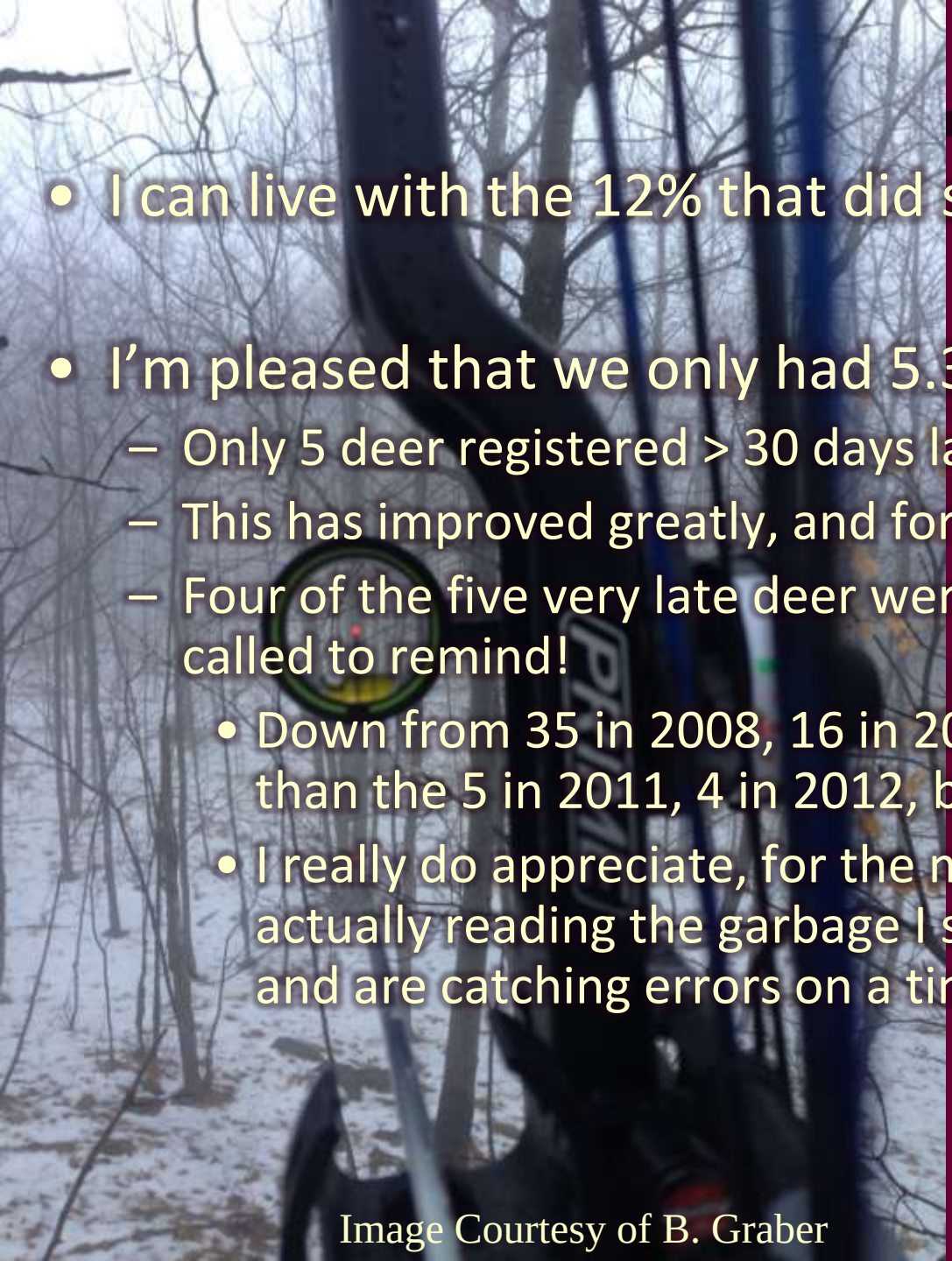


Image Courtesy of L. Birnbaum



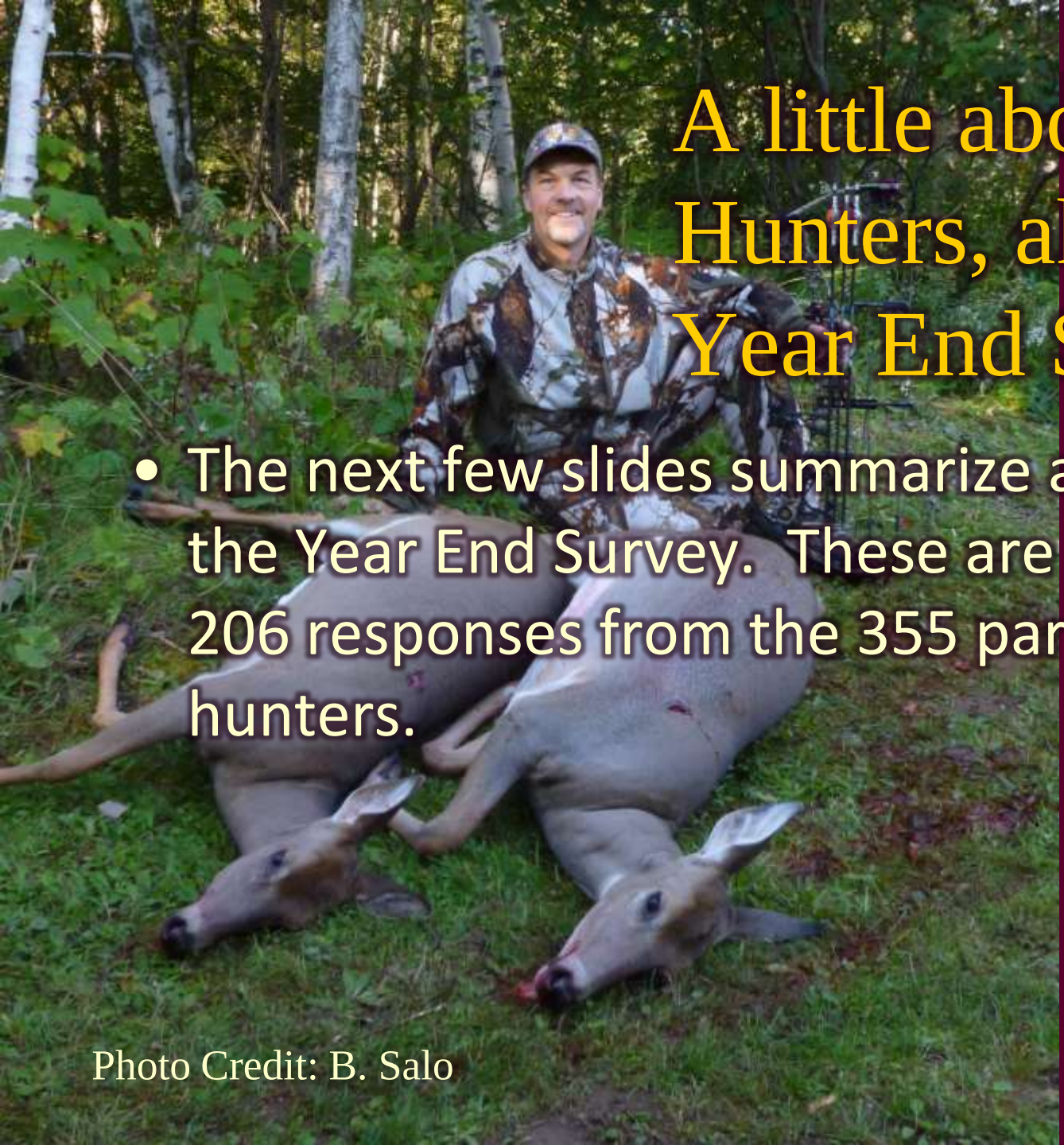
Deer registration, measured as the difference between the date registered with the ABA and the date of harvest. Within 48 hours is required by the Rules Manual. 84% were registered on time. Thank you!



- I can live with the 12% that did so within 1 week

- I'm pleased that we only had 5.3% registered late.
  - Only 5 deer registered > 30 days late
  - This has improved greatly, and for that the ABA is very thankful.
  - Four of the five very late deer were not registered until HCs called to remind!
    - Down from 35 in 2008, 16 in 2009, and 19 in 2010, but higher than the 5 in 2011, 4 in 2012, but 7 in 2013.
    - I really do appreciate, for the most part, that hunters are actually reading the garbage I spew out on a weekly basis, and are catching errors on a timely fashion.

Image Courtesy of B. Graber



A little about our Hunters, aka The Year End Survey

- The next few slides summarize a bit from the Year End Survey. These are based upon 206 responses from the 355 participating hunters.

Photo Credit: B. Salo

Survey Response Rate

# Survey Responses	206
# Hunters Placed	355
Response Rate	58.0%
Responsible for % harvest	47.0%
Final Total Harvest	451

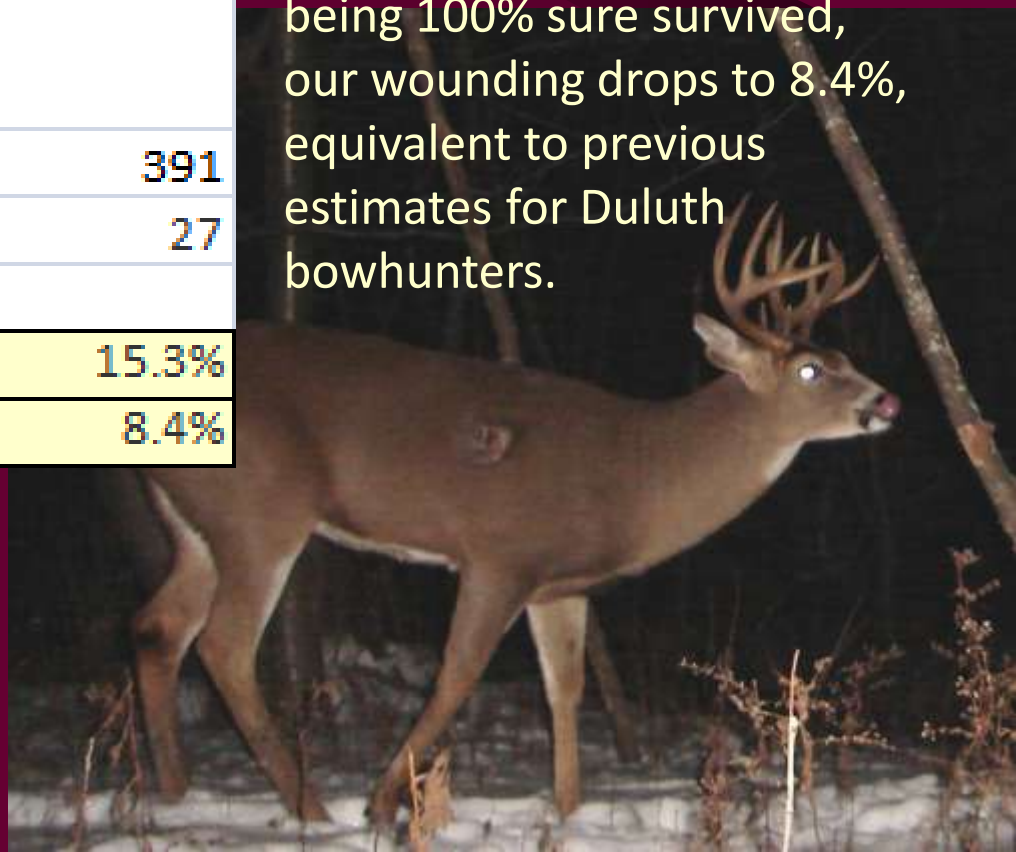
Image courtesy of T. Bragg

This 58.0% response rate is much higher than the 37.9% response rate observed in 2013. That's actually not too bad for this type of survey. The ABA thanks you for taking the time to provide feedback and very valuable data. The individual that runs the MBRB Metro Hunts in Ramsey County is very envious of the data that our hunters provide. So thanks a ton! However, if you are in the 42% of hunters that didn't feel it was important enough to fill in the survey, please don't continue to complain about how this Hunt is managed. Perhaps you will consider participating in the survey next season.

Wounding Rates

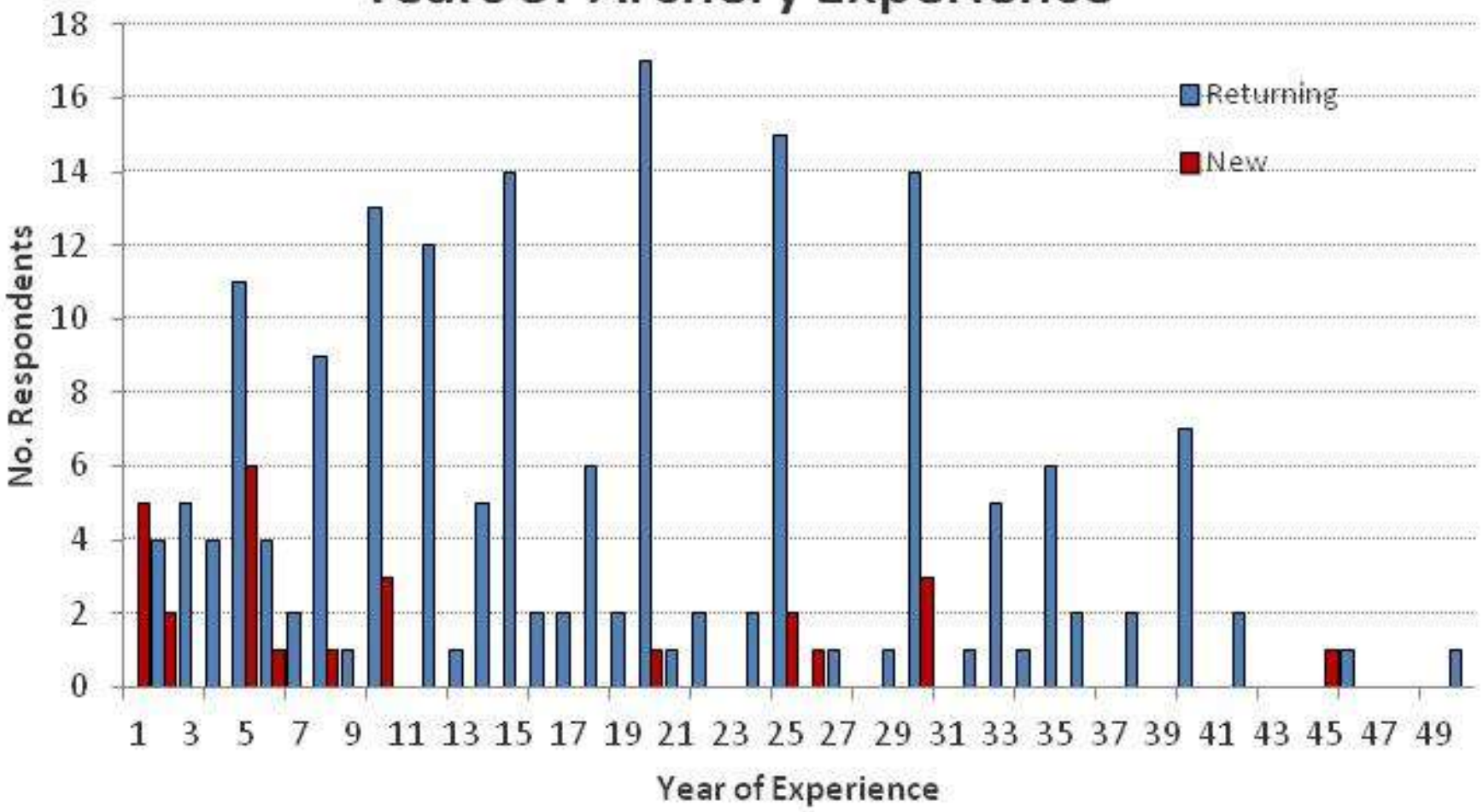
Total # Deer Reported:	331
Total # Wounded:	60
Total # shots:	391
Total # that did not die:	27
General Wounding Rate:	15.3%
Adjusted Wounding Rate:	8.4%

Overall wounding was just over 15%, slightly higher than the average for MN archery. This estimate is slightly higher than previous wounding rate estimates. Removing the deer that folks reported being 100% sure survived, our wounding drops to 8.4%, equivalent to previous estimates for Duluth bowhunters.



If you Bowhunted, did you bowhunt anywhere in MN other than Duluth in 2013?	
Yes I did.	122
No, I only hunted in Duluth.	84
Total	206
% Seeking other Hunting Spots	59.2%

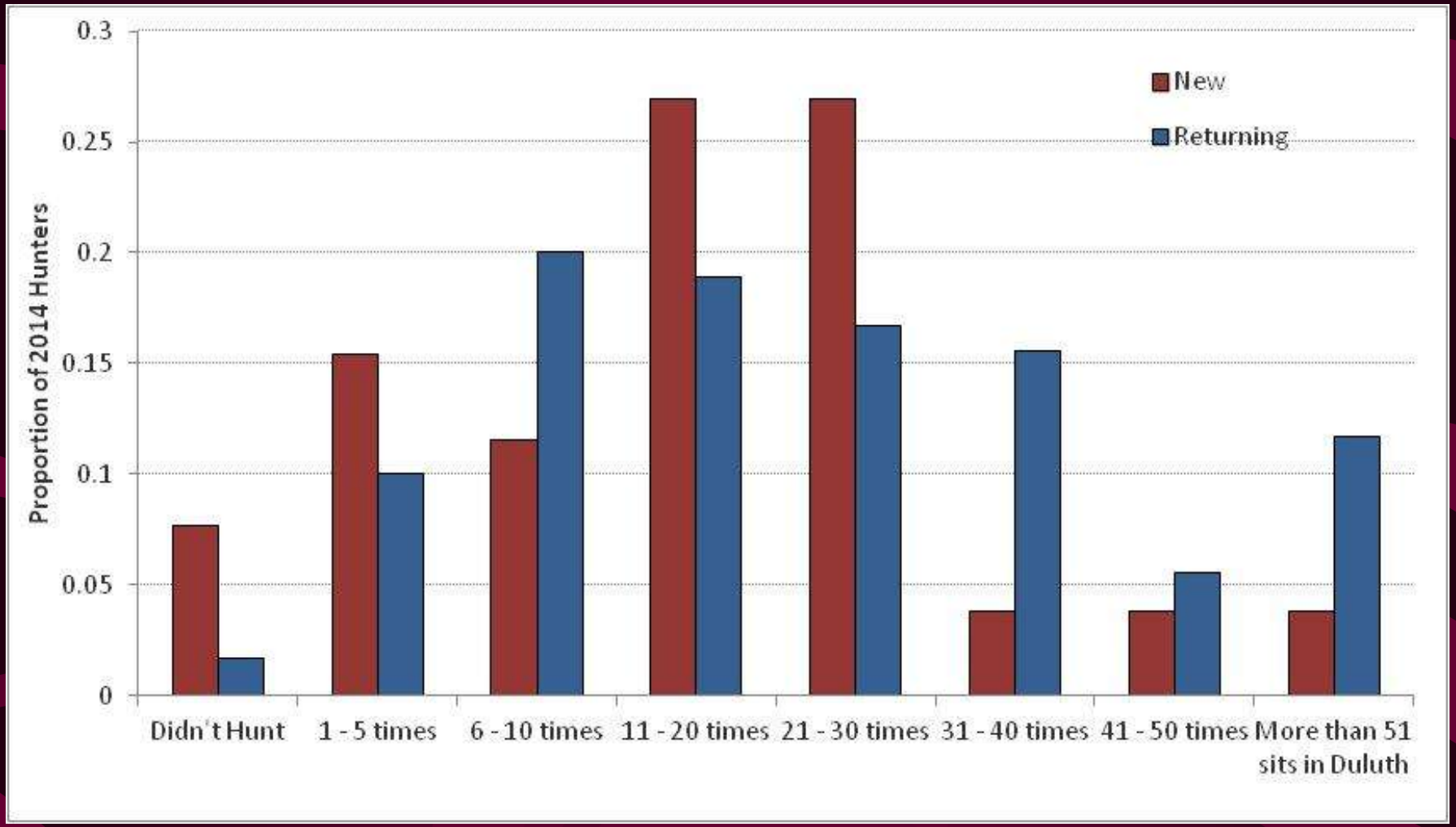
- Note that this includes a few individuals that reported that they just never got out into the woods to participate in 2014. This estimate is down by 20% from the 2011 estimate and 10% from the 2012 estimate, but equivalent to the 2013 estimate. Thus, more folks in 2014 invested all of their hunting time in the Duluth woods, rather than elsewhere.



From this graph, the data suggests that overall experience in bowhunting is higher for returning hunters. Obviously there are exceptions, but as a group, new hunters in Duluth are relatively new to the sport. Welcome!

- Archery experience for our New Hunters was 12.1 ± 5.0 years of participating in this sport.
- For Returning hunters, average years of experience was 19.1 ± 1.7.
- There were significant differences observed in these two means (averages) ($P < 0.0049$), suggesting that more hunters with less experience may be getting involved in this wonderful sport as a result of the opportunity to participate in the Duluth Hunt.
- This has been a great opportunity for recruitment into the sport.

Image courtesy of T. Brisse



To gauge how avid our hunters are, respondents were asked to estimate the number of times they headed out into the woods to hunt. Anecdotally, it sure seems as though Duluth hunters spend a lot of time in the woods. Aren't we spoiled at this wonderful opportunity? I don't know how this compares to folks hunting elsewhere in MN, or on a national level.

Lottery Results

- **79.6%** of Returning Hunters received their 1st Choice DHA!
  - 147 returning hunters, or 49.1% got their first choice, and **DID NOT** have to attend the Lottery!
  - 91 Returning Hunters received their First Choice at the Lottery
  - 238 of the Hunters received their First Choice DHA
  - 3.7% received 2nd Choice DHA (N=11 Hunters)
  - 83.3% of Returning Hunters got to hunt where they wanted to!
  - 9 New Hunters got their first choice, and 8 their second choice, in the Lottery. 31.5% of New hunters got into a DHA of choice.
  - Hard to argue that the system isn't working well, in spite of what you might read or post online!
  - But if there were a comment box to complain about the process, I'd like to file a grievance. For the fifth year in the last six, I didn't get ANY of my DHA choices!

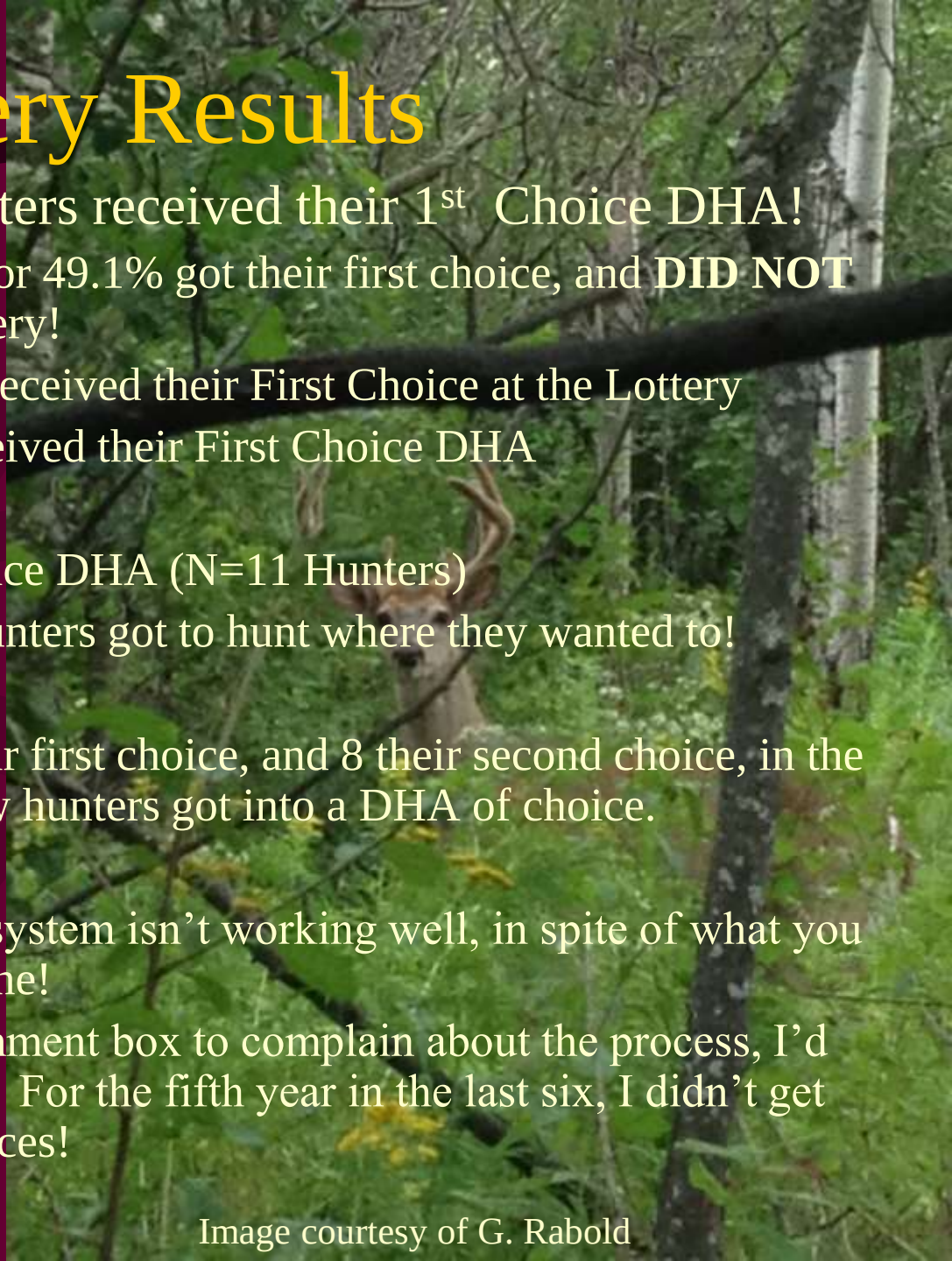
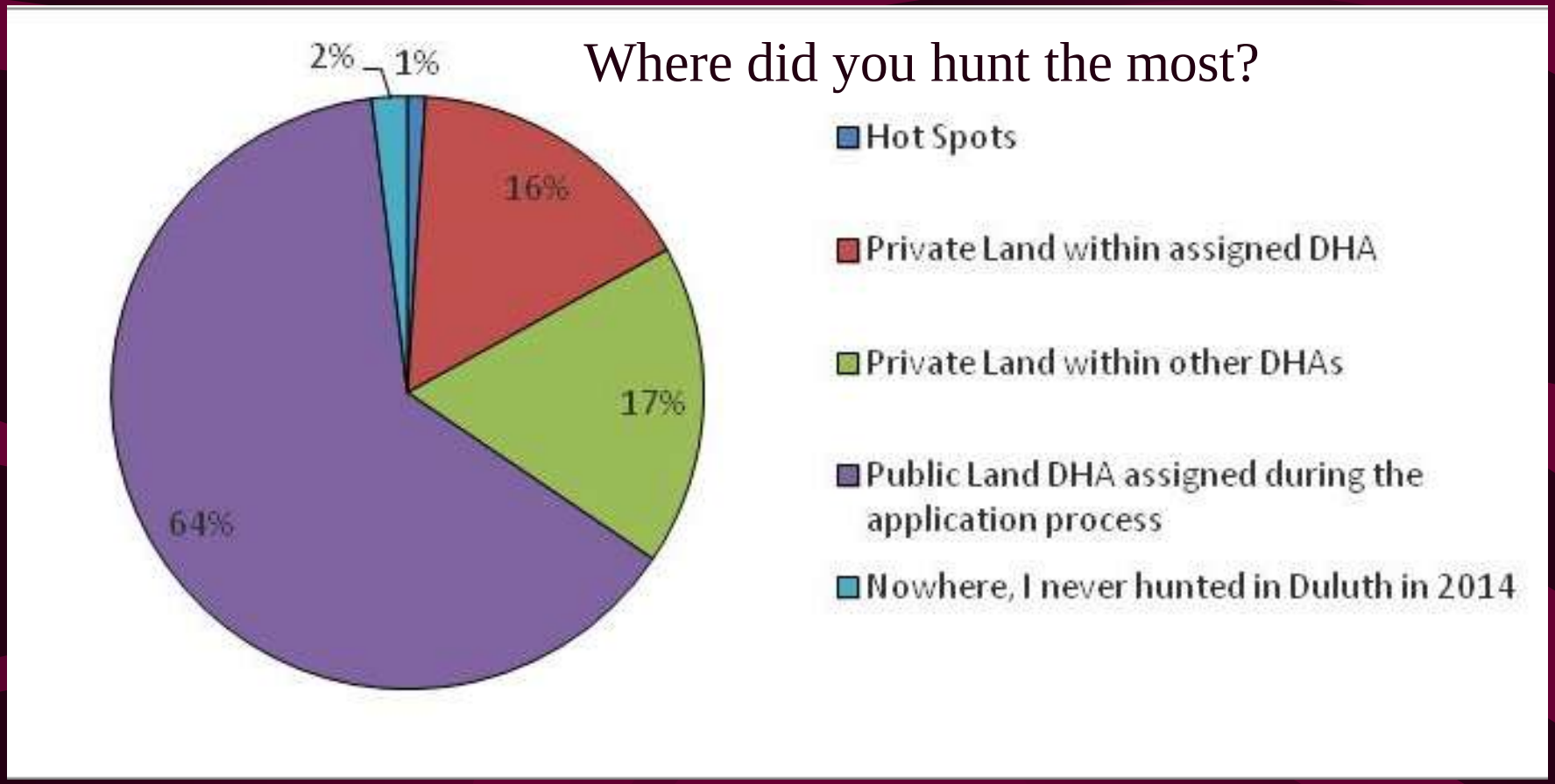
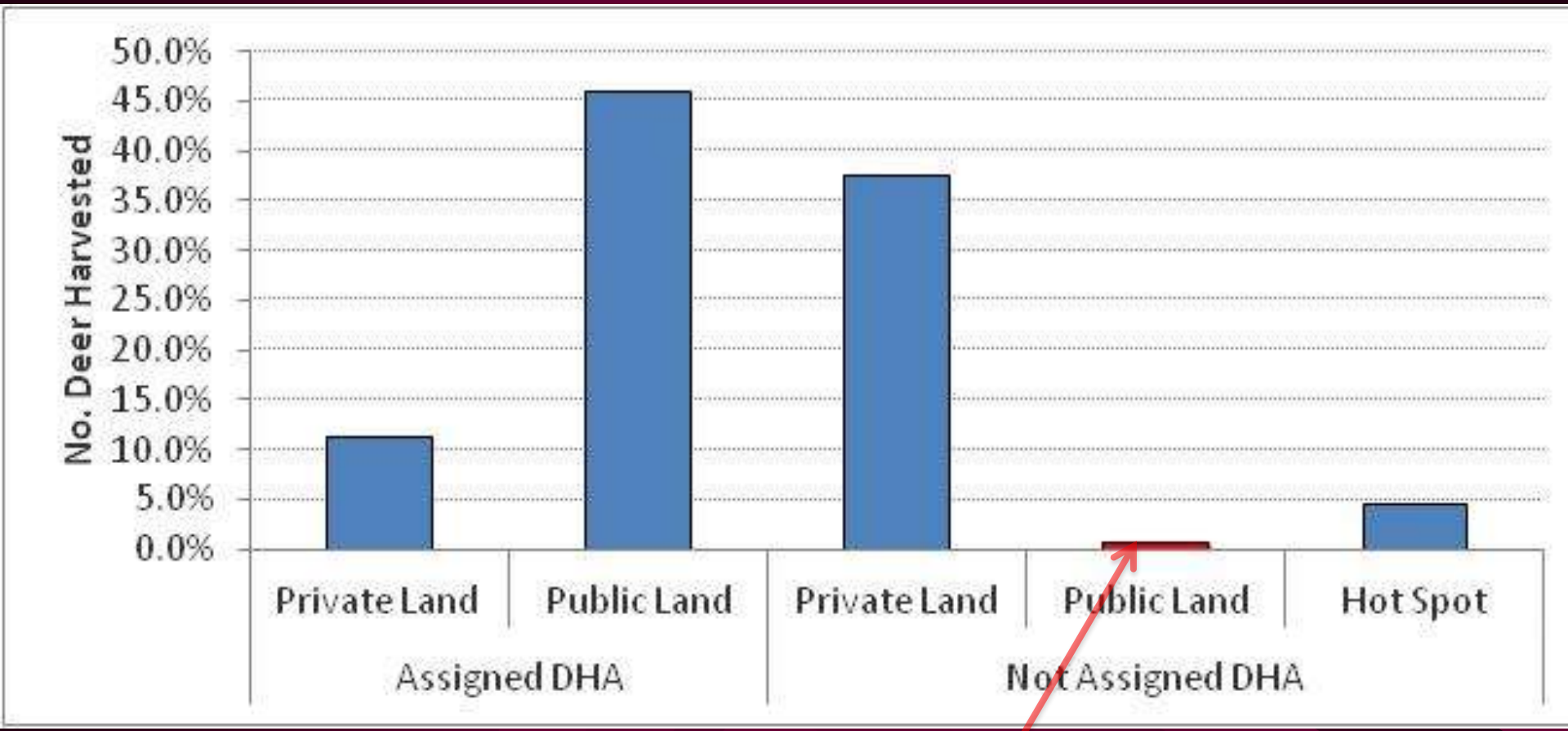


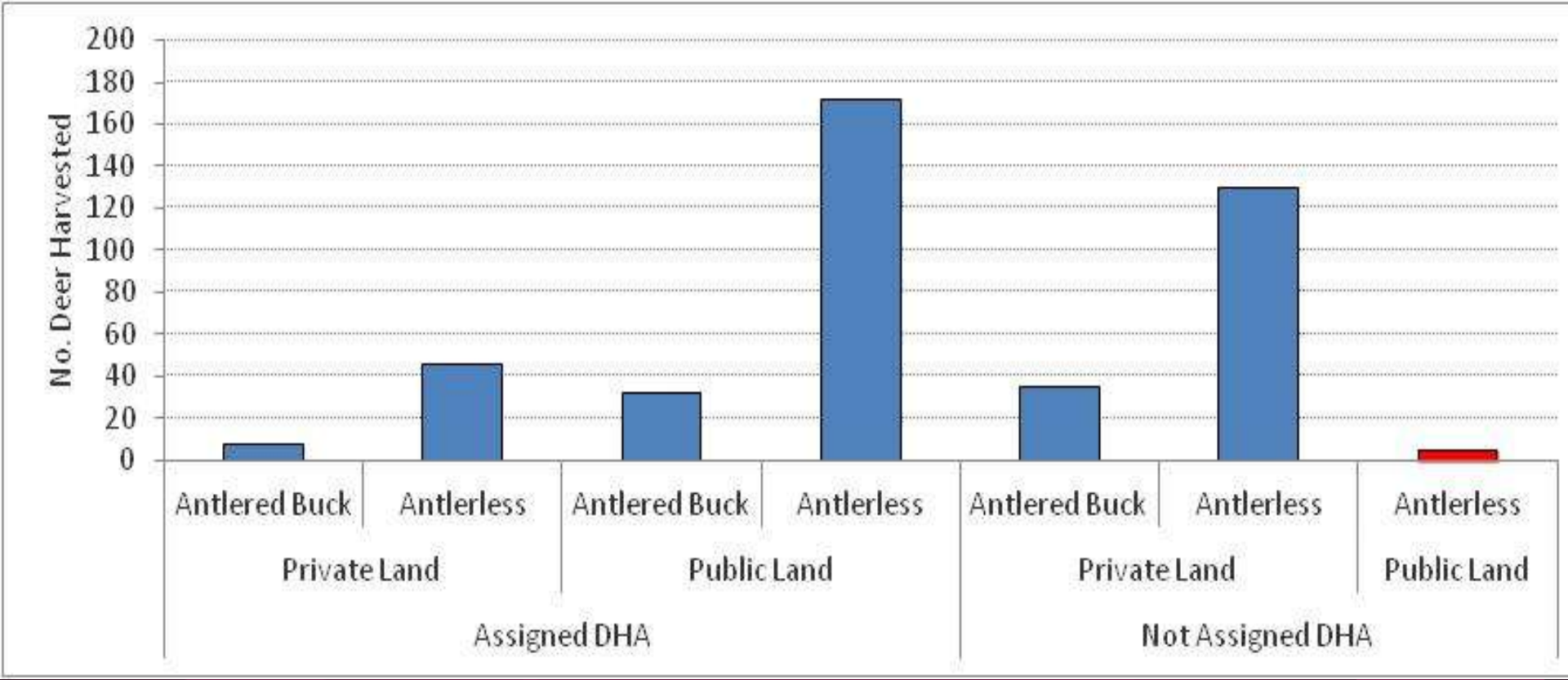
Image courtesy of G. Rabold



It appears as though DHA selection in the Lottery provides the majority of the hunting opportunities within Duluth, as 64% of respondents reported that their DHA was their most used hunting location. So please do show up to Lottery Night in 2015, or send a proxy, or ask Bork to serve as your proxy. He has to be there anyways, no reason for everyone to waste a nice evening in July, right?

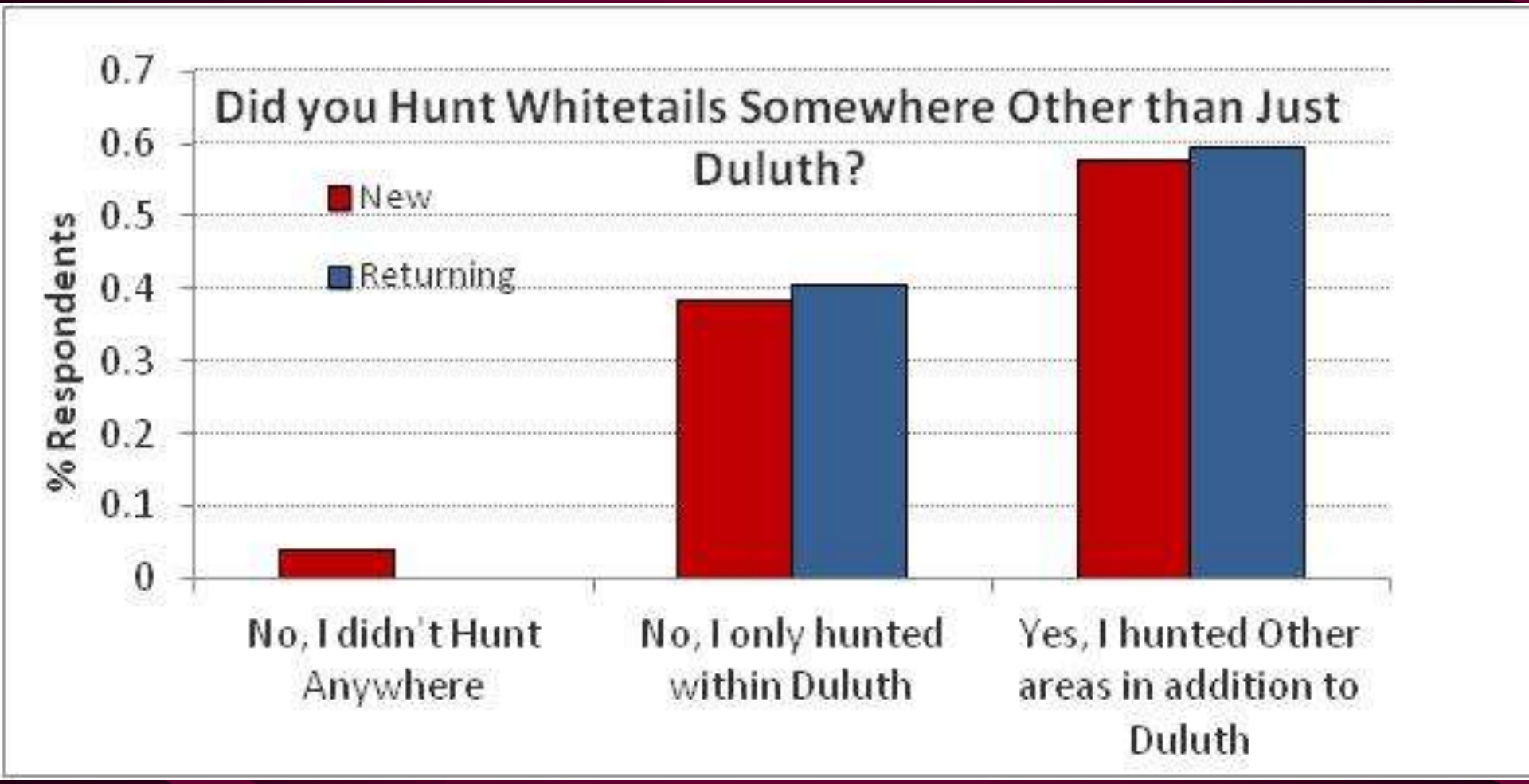


Further, I looked at harvest. Almost 45% of the harvest was from the public land DHA assigned during the Lottery. I'm not sure why hunters are hunting public lands on DHAs they were NOT assigned??? Although several folks out there think that Hot Spots are the Holy Grail of spots, only 4.5% of total harvest came from Hot Spots. This is not statistically significant, though it may be for the hunters participating in Hot Spots.

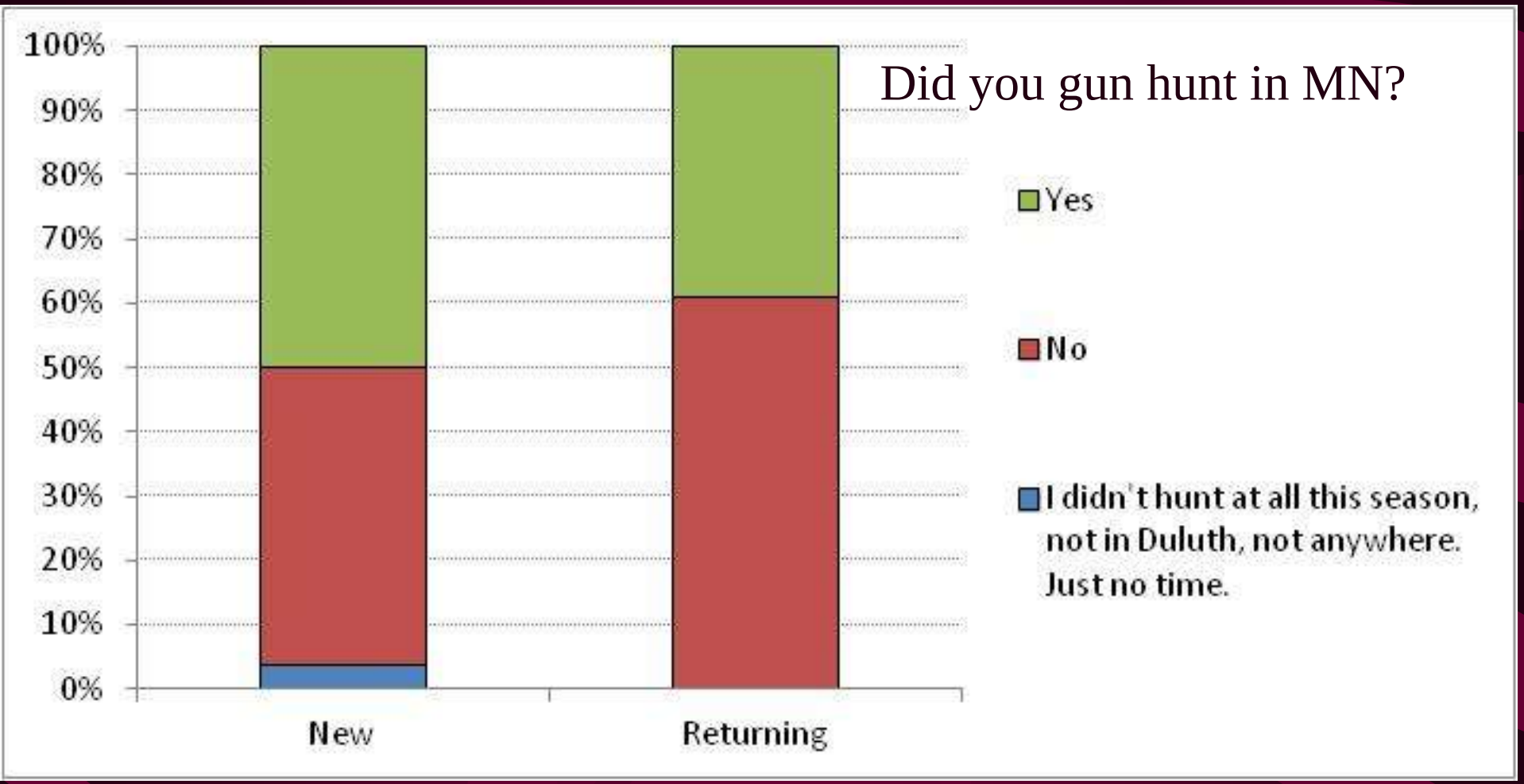


In evaluating the importance of the DHA and private lands, the majority of our doe harvest does occur within assigned DHAs (both public and private land), and not private hunting reserves as many hunters mistakenly believe. Antlered harvest is higher within assigned DHAs than it is on private land in unassigned DHAs. Hot Spot harvest is not included. Those are all in unassigned DHAs.

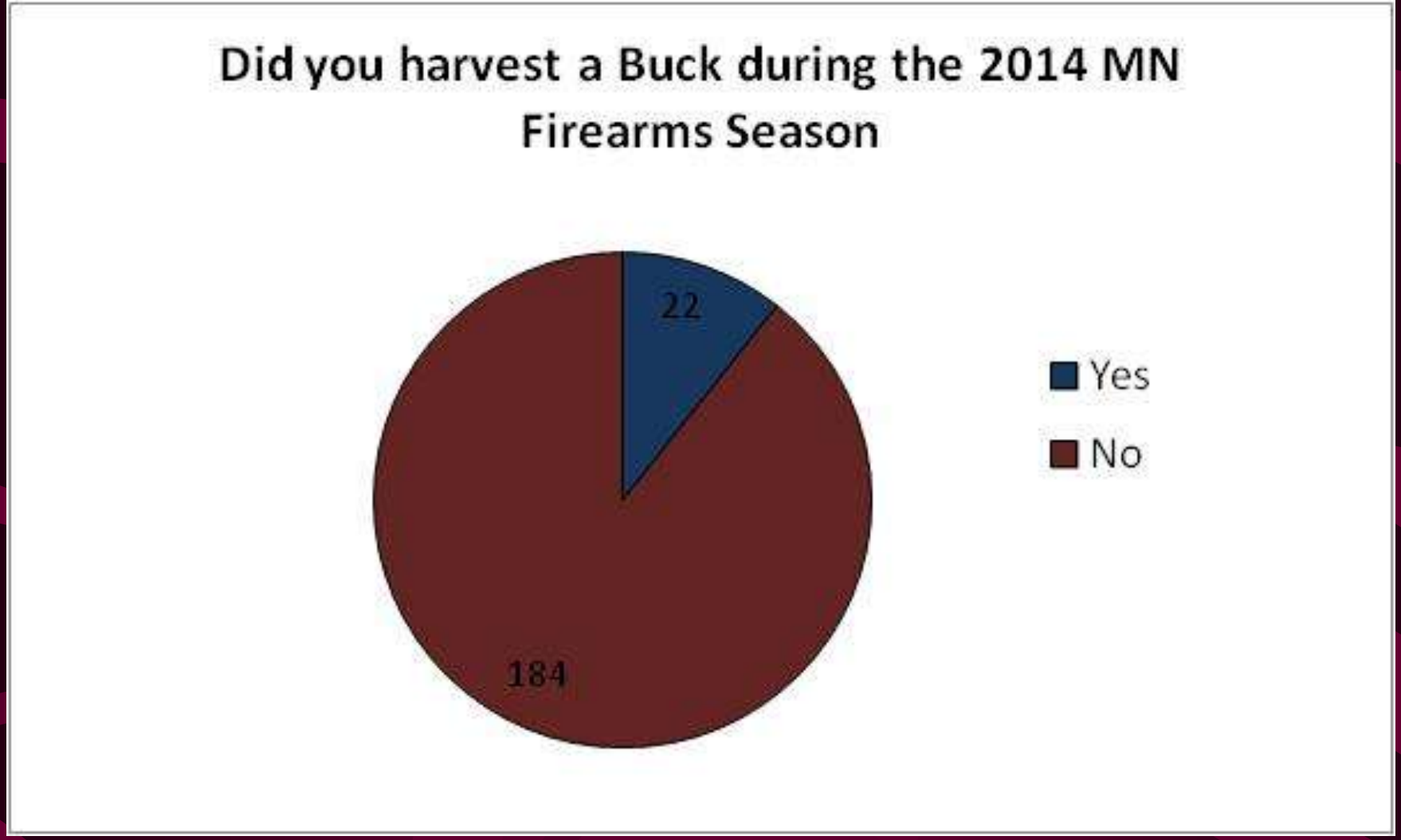
More data from the Year End Survey



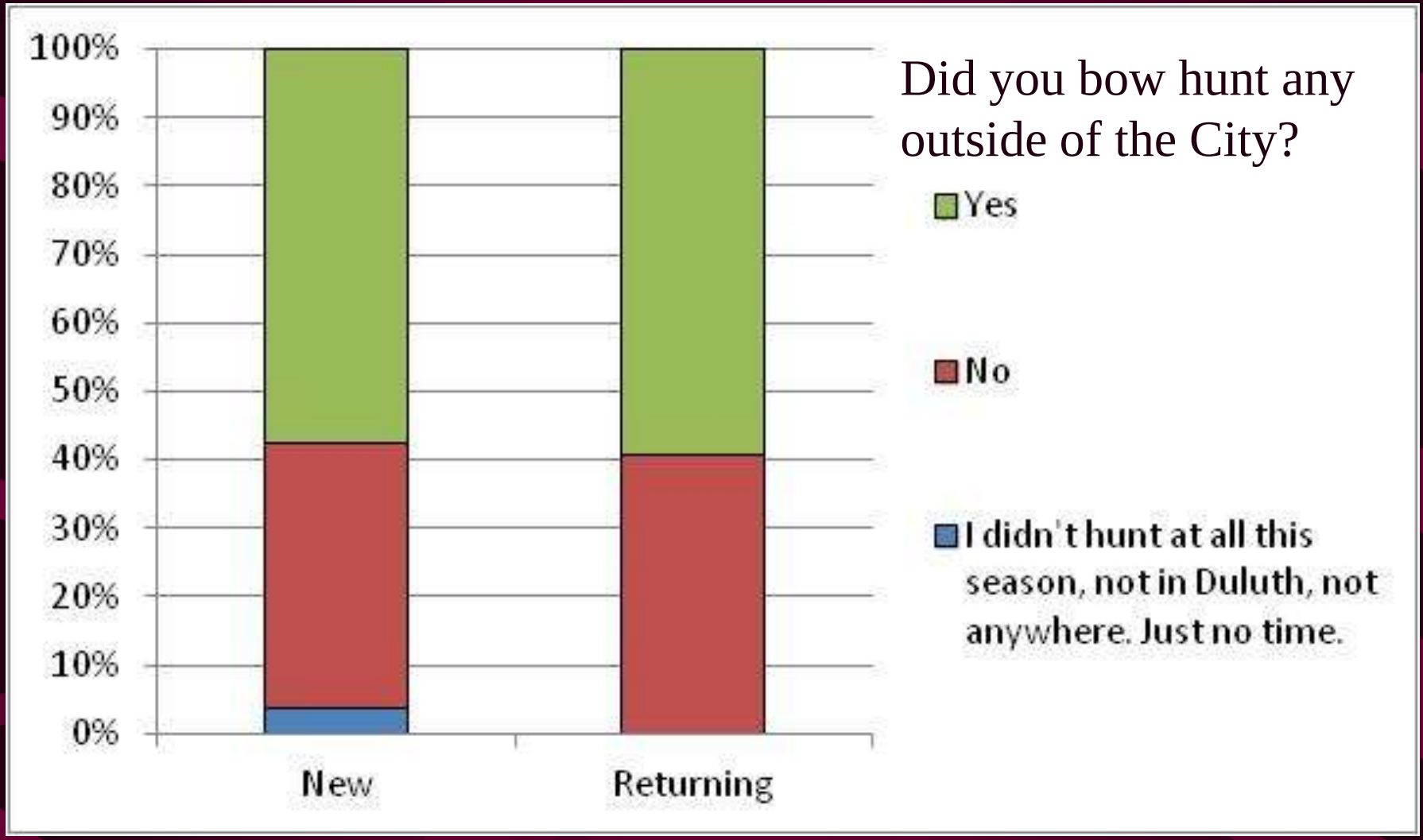
Even New hunters had other stand locations outside of Duluth that they spent time pursuing white-tailed deer in 2014.



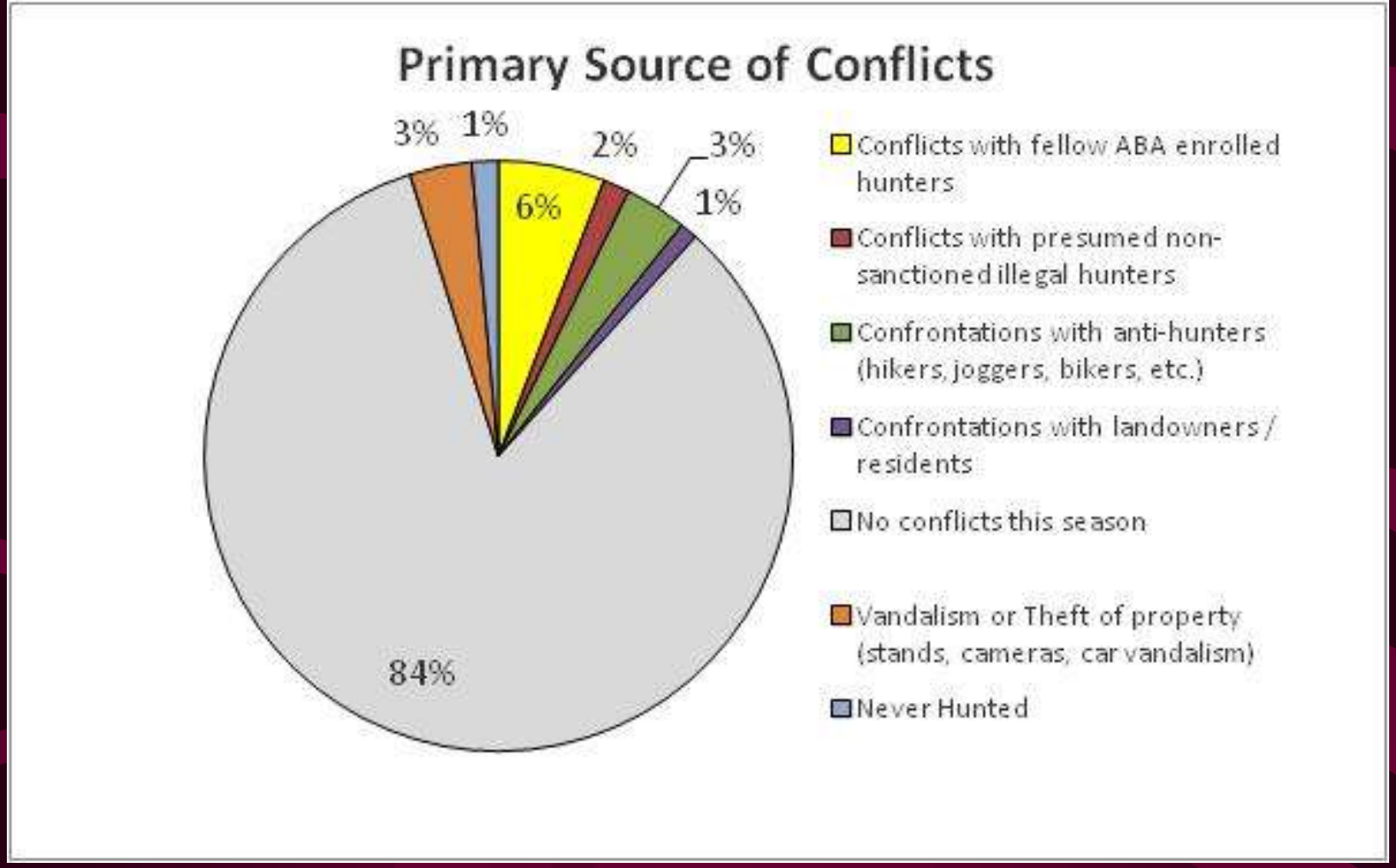
Survey participants were asked about their rifle hunting in 2014. Reason for this was that the ABA has been asked why our hunters don't shoot more bucks within City limits. We wondered if this was due to firearm hunting activity. About 50% of our New hunters, and 40% of our Returning hunters reported participation in the MN State Firearms Season in 2014.



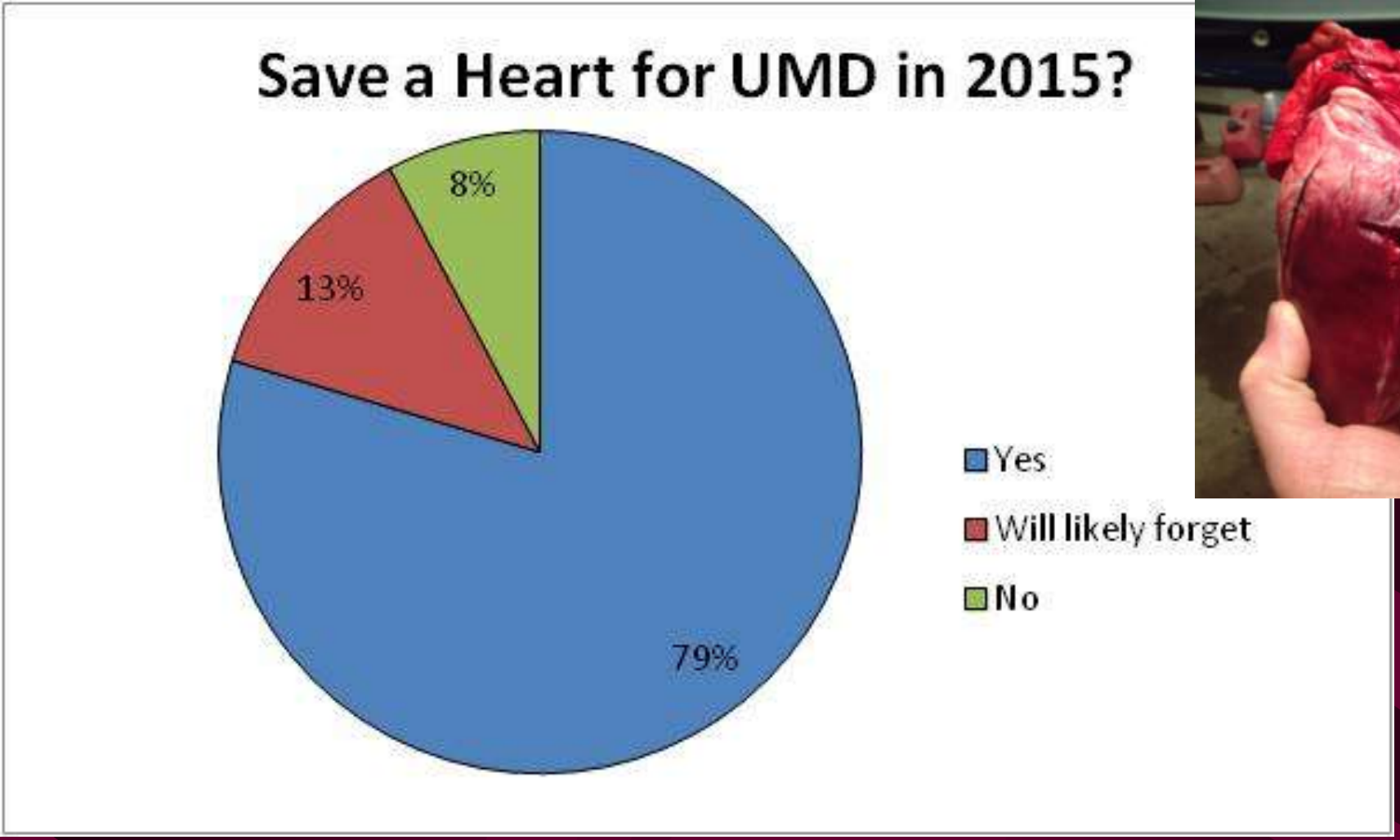
22 of our Duluth City hunters reported harvesting a buck during the MN firearms season. Which is fine. This gives us some insight as to why more antlered individuals aren't harvested in Duluth.



- Just under 60% of both New and Returning hunters hunt in stands outside of the Duluth City. Perhaps it's easier to find deer now outside of Duluth? We all only have so much time to hunt, right?



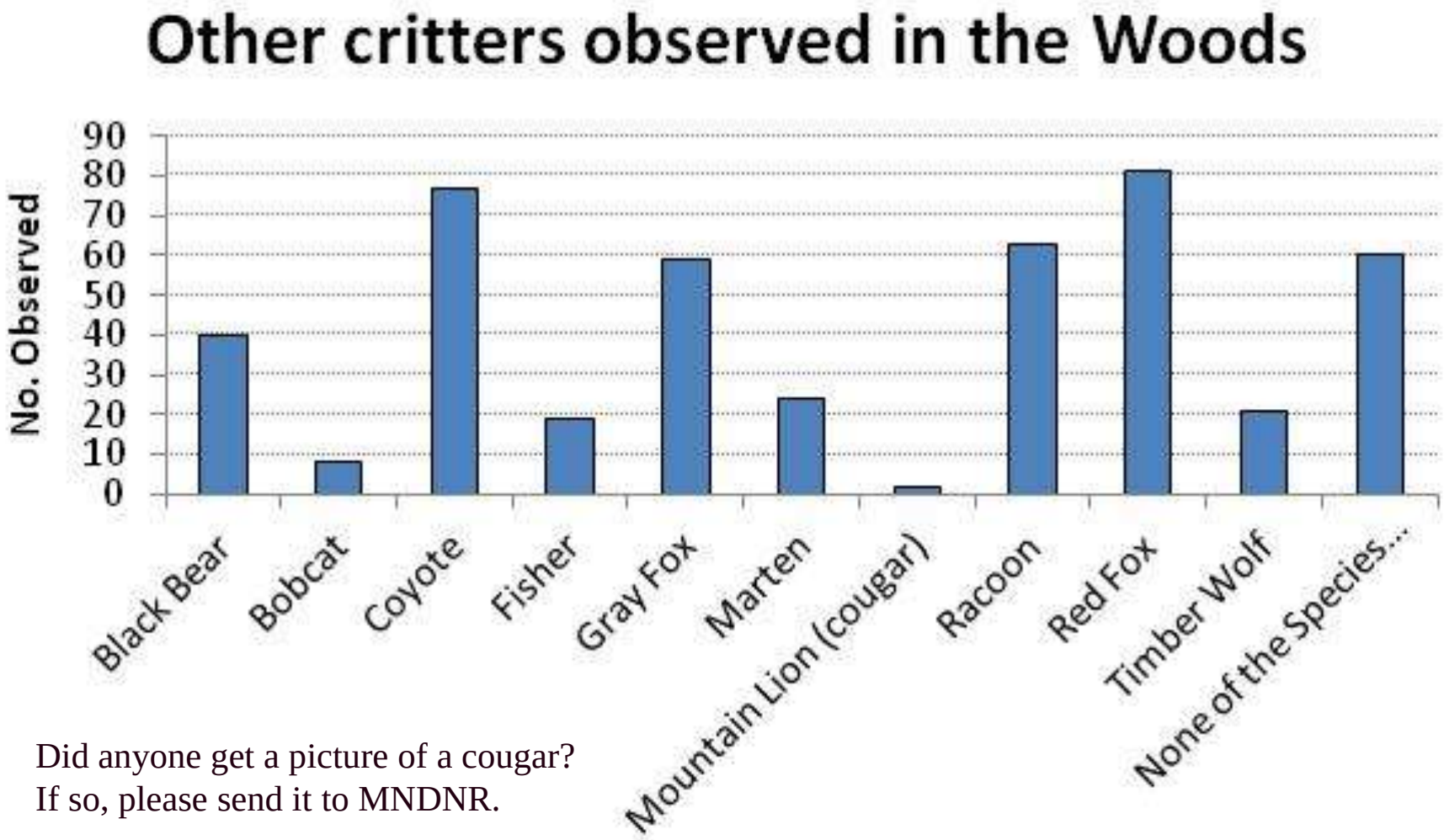
84% of respondents reported zero incidents in the woods in 2014. 2% reported issues with presumed non-ABA hunters. The Board can't do anything about that. You need to contact Duluth PD when you run into these hunters. But 6% of you reported having problems with other ABA hunters. You were instructed at Orientation Night to play nicely with each other. Please do so in 2015! This value really should be very close to 0%. If you are having issues with ABA hunters, please contact your HC or the Board when this happens.



As you know, the UMD Medical School has requested hearts from us for the past four years. Fresh, frozen hearts have "significantly" finer detail in the veins and structures than do preserved hearts. But it has seemed that interest from our hunters has waned. This data only reports that 79% of responding hunters still think that this is a worthwhile program to continue in 2015. The ABA wanted to gauge interest prior to committing to doing this again in 2015. Perhaps we will still commit. Thanks!

Heart Image courtesy of D. Ribich

Since many of us didn't see many deer, what else did hunters see in the woods in 2014?



Did anyone get a picture of a cougar?
If so, please send it to MNDNR.


Fox courtesy of B. Fehringer

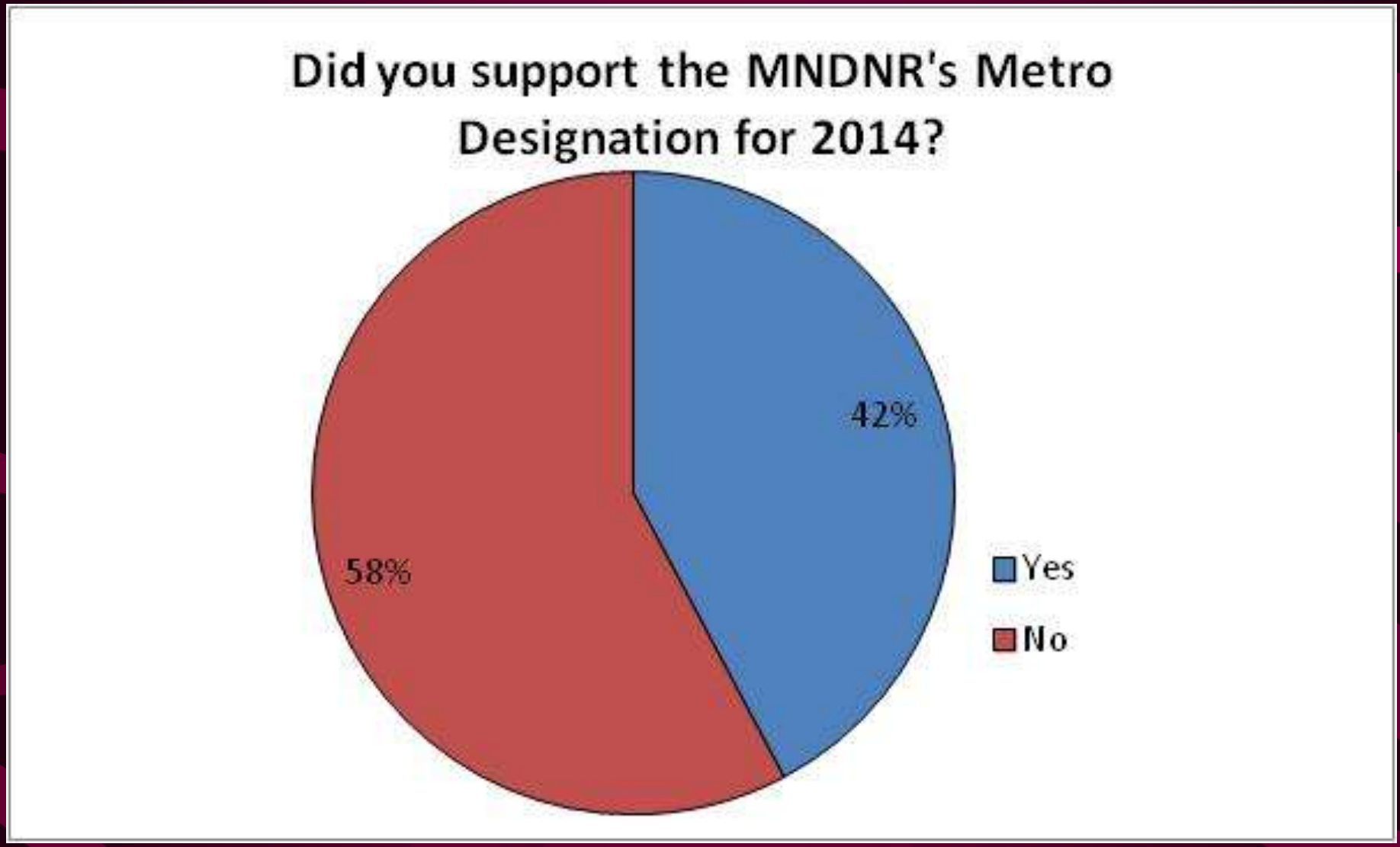

Bear courtesy of B. Graber


Coyote & Wolf courtesy of G. Cross.

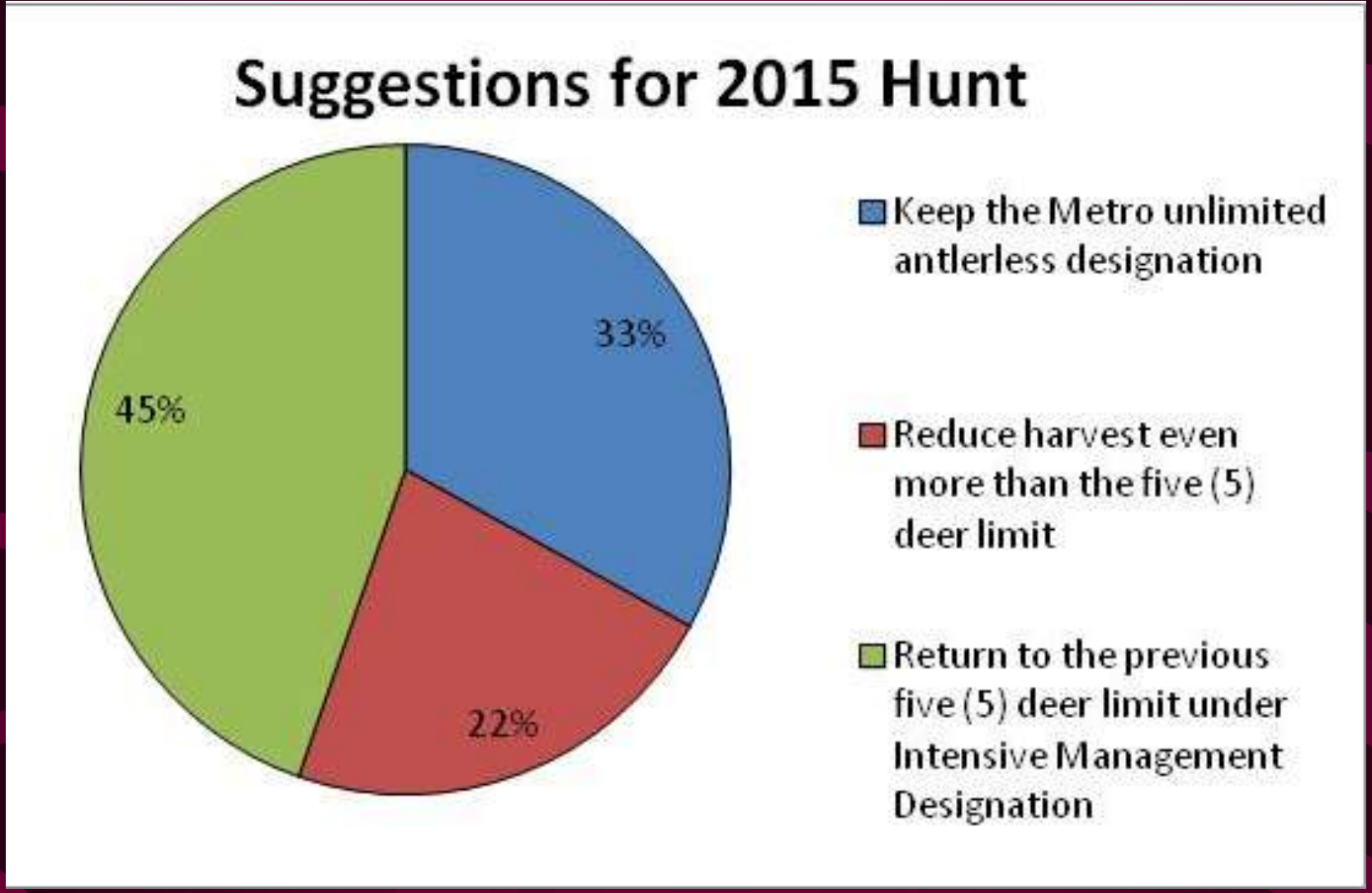
Metro Designation

New to 2014, the MNDNR established Duluth as a Metro Hunt. This 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 nine hunters that did shoot more than five deer. But here's what folks thought of the new Metro Hunt:

Image Courtesy of T. Salo



- At the start of the 2014 Hunt, 42% of our hunters supported the MNDNR's new Metro designation.



- Duluth hunters largely feel that the limit should be reduced below the unlimited number allowed in 2014. But one-third of hunters still think that the Metro designation is appropriate for 2015. Only 9% changed their minds throughout the season.

Final Chapter

- Comments from those that participated in the Year End Survey.

Photo Credit: A. Mangan

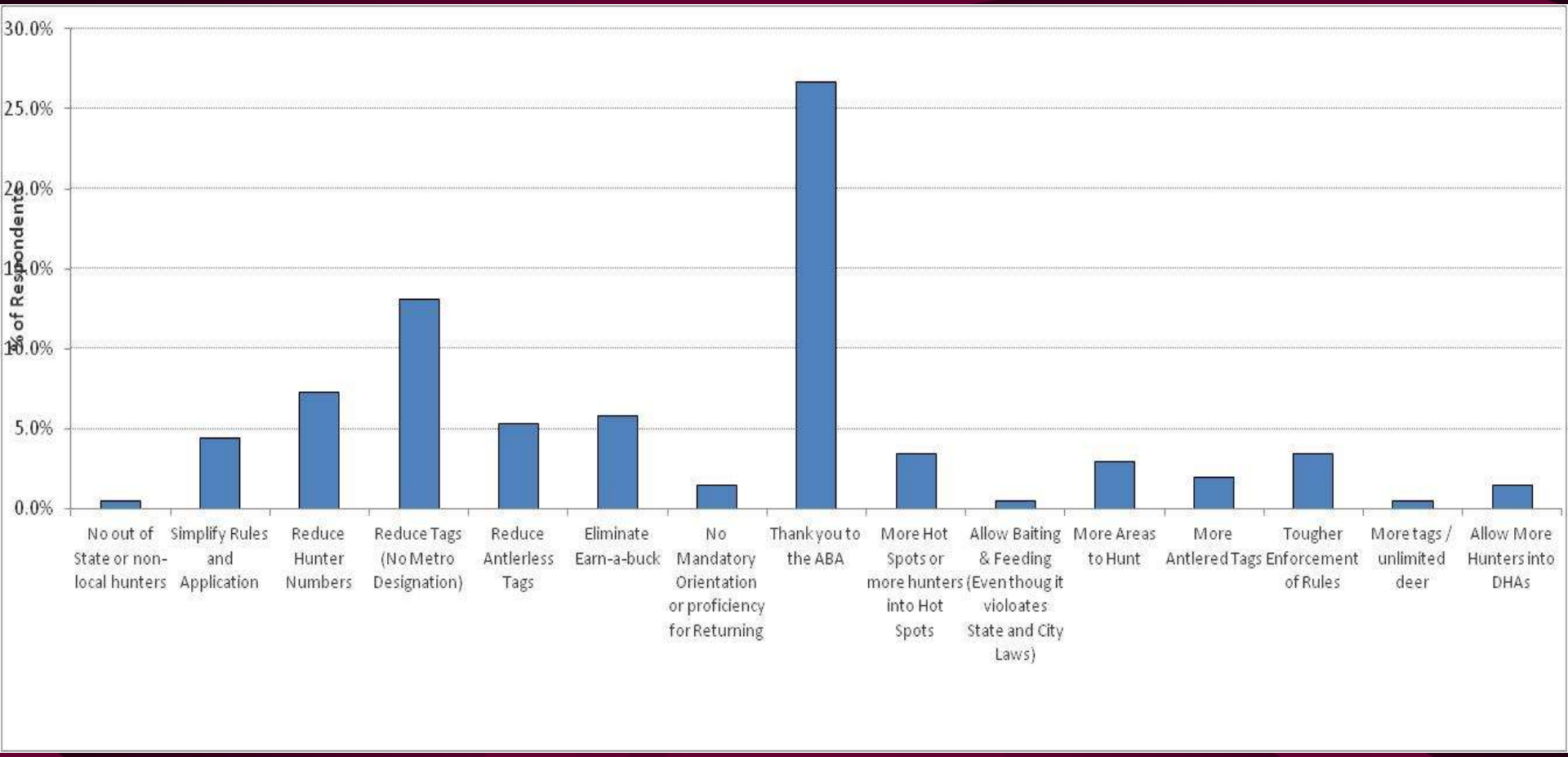
Comments from the Masses:

You all were given the opportunity to comment on whatever you wanted. The question was worded:

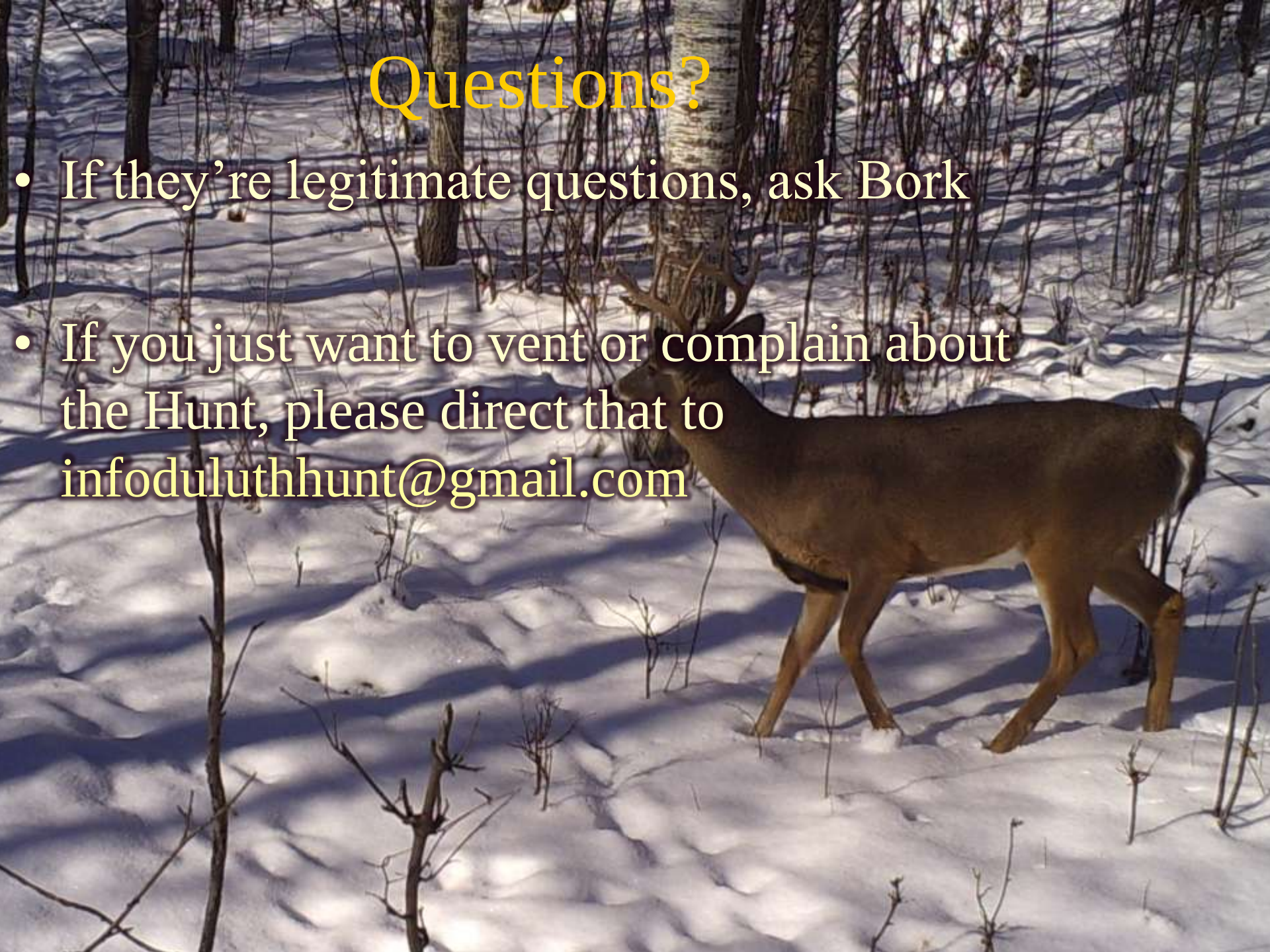
"Do you have any ideas or suggestions for improving the Hunt in 2015?"

Well, as can be expected, the responses were all over the place. Many were useful. You all received copies of all comments turned in. A brief summary follows:

Image Coutesy of C. "Can't Shoot Straight" Mannon



This is just a summary of comments received. More than 25% are appreciative of the work the ABA Board does. More than 15% believe that tag numbers need to be reduced in 2014. Almost 7% say we have too many hunters.



Questions?

- If they're legitimate questions, ask Bork
- If you just want to vent or complain about the Hunt, please direct that to infoduluthhunt@gmail.com