



Harvest Summary 2012 or . . .

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

Submitted to ABA Board
By Bork

FYI, this is the full summary, and not the simple one. Please be
aware of the vast amounts of data that you will be subjected to
as you proceed with caution. . . .

Historical Perspectic

- These first few slides provide a brief history of the early successes of the Duluth Bowhunt.
- Note the number of participating hunters & the success rates (both by individual hunters and as a function of density), and how the two metrics have changed as the Hunt has progressed.

2005 Results

- 9600 Acres open to hunting
- 210 Applicants
 - 189 Hunters Qualified and were Placed
 - 177 Actually Hunted
- 331 Deer Harvested (263 , 68)
- 1.87 0.21 Deer / Hunter
 - 0.13 / Bowhunter MN Mean
- 22.1 deer / mile² harvested
- Wounding Rate of 7.8%

2006 Results

- 20,100 Acres open to hunting
- 260 Applicants
 - 251 Placed
 - 195 Reported Harvest
- 564 Deer Harvested (**485** , **79**)
 - 2.25 0.22 deer / hunter (if all hunted)
 - 2.9 0.21 deer / successful hunter
- 7.2 % Wounding Rate
- 18.0 deer / mile² harvested

2007 Results

- 22,252 Acres Open to Hunting
- 315 Hunters Placed
- Estimated 310 Actually Hunted
- 567 Deer Harvested (476 , 91)
- 1.8 0.2 Deer / hunter
- 16.3 deer / mile² harvested

2008 Results

- No additional acreage (save for 3 Hot Spots)
- 289 Hunters placed (2 removed early)
- 533 Deer Harvested (457 , 75)
- 1.82 0.19 Deer / Hunter
 - Only 0.26 Bucks / hunter
- 17.0 deer / mile² harvested
 - 16.7 without Hot Spot stats

2009 Results

- Approx 300 acres added to DHA 1 (plus an increase in number of Hot Spots)
- 316 Hunters placed
- 586 Deer Harvested (492 , 94)
- 1.85 0.18 Deer / Hunter
 - Only 0.30 Bucks / hunter
- 16.4 deer / mile² harvested
 - 14.8 without Hot Spot stats

2010 Results

- No increase in Real Estate, except for a small increase in number of Hot Spots
- 339 Hunters placed
- 602 Deer Harvested (514 , 88)
 - 3 Antlerless were Adult that already shed antlers
- 1.78 0.16 Deer / Hunter
 - Only 0.26 0.05 Bucks / hunter
- **15.8 deer / mile² harvested**
 - 15.6 without Hot Spot stats

2011 Results

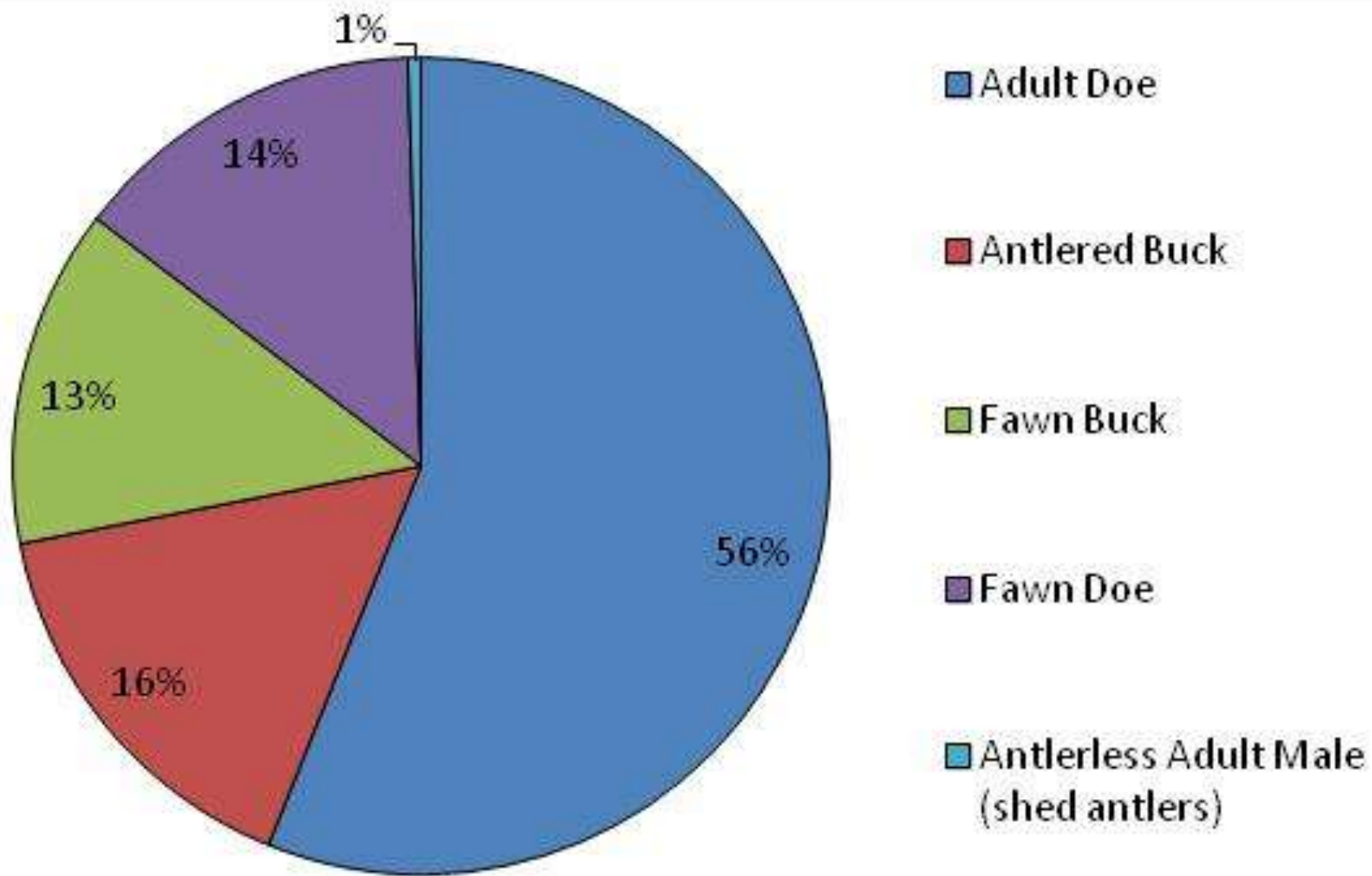
- No increase in Real Estate, except for a small increase in number of Hot Spots
- 377 Hunters placed
- 587 Deer Harvested (475 , 111)
 - 1 Antlerless was an Adult that already shed antlers
- 1.5 0.1 Deer / Hunter
 - Only 0.3 0.1 Bucks / hunter
- **15.5 deer / mile² harvested**
 - 15.4 without Hot Spot stats



And now for a summary of the 2012 Hunt

2012 Results

- No increase in Real Estate
- 359 Hunters placed
- 574 Deer Harvested (483 ♂, 91 ♀)
 - 3 Antlerless were Adult ♀ that already shed antlers
- 1.59 ♂ 0.14 Deer / Hunter
 - Only 0.24 ♂ 0.04 Bucks / hunter
- **15.1 deer / mile² harvested**
 - 16.3 without Hot Spot stats
 - First time that Hot Spot success dragged down total success.



2012 Duluth Bowhunt Harvest

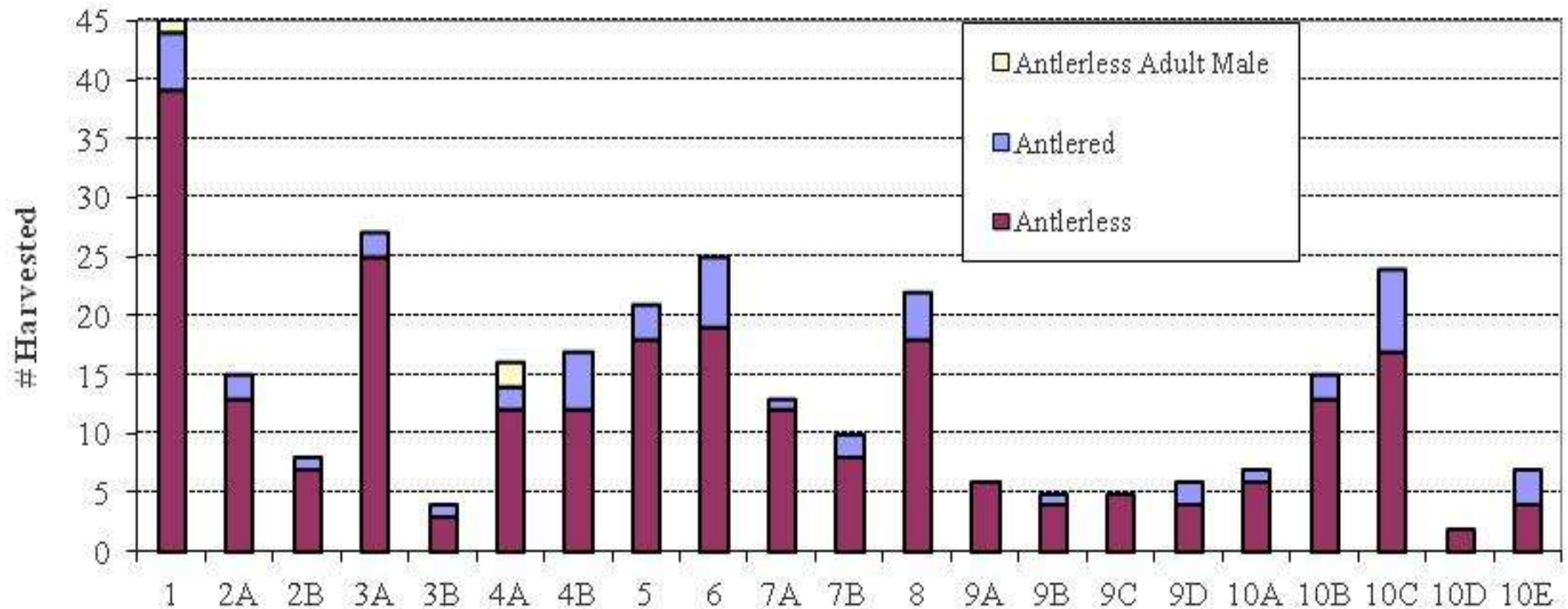
15.9% Bucks

84.1% Antlerless

Breakdown of Antlerless

- 483 Antlerless deer harvested in 2012
 - 81 Doe fawns
 - 77 Buck fawns
 - 322 Adult does
 - 3 Antlerless Adult Males (already shed)

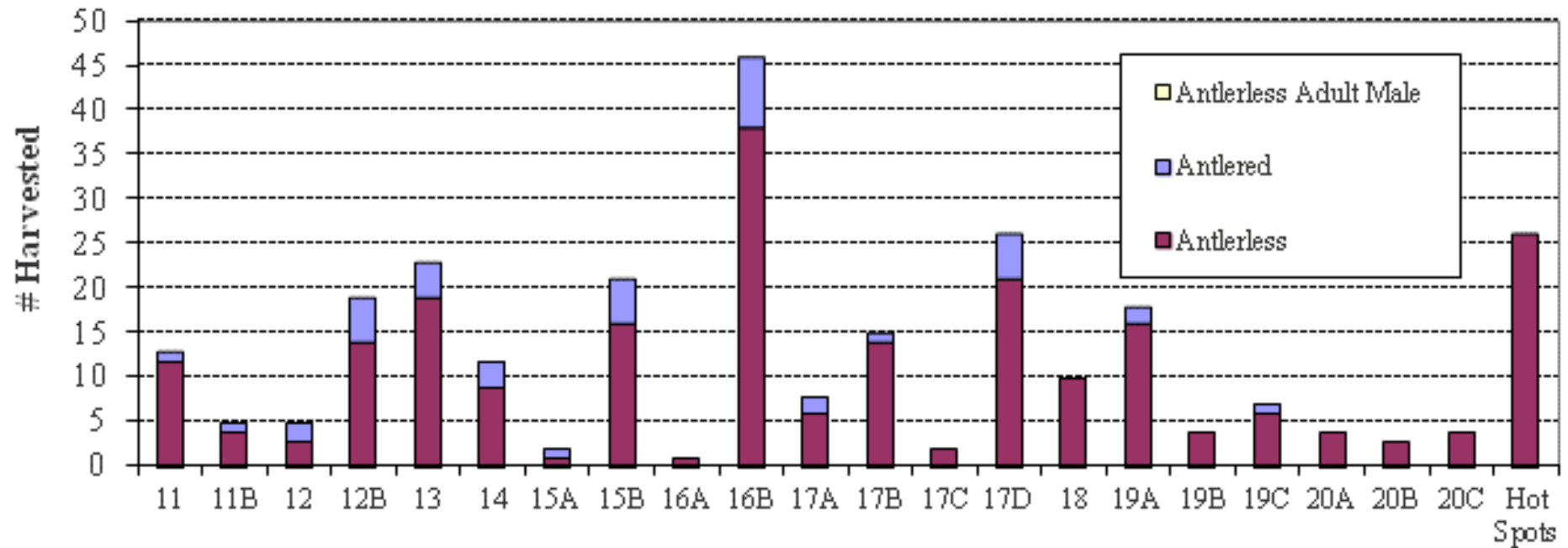
Total Harvest by DHA



This and the next slide show the number of deer harvested within each of the DHAs during the 2012 Duluth Hunt

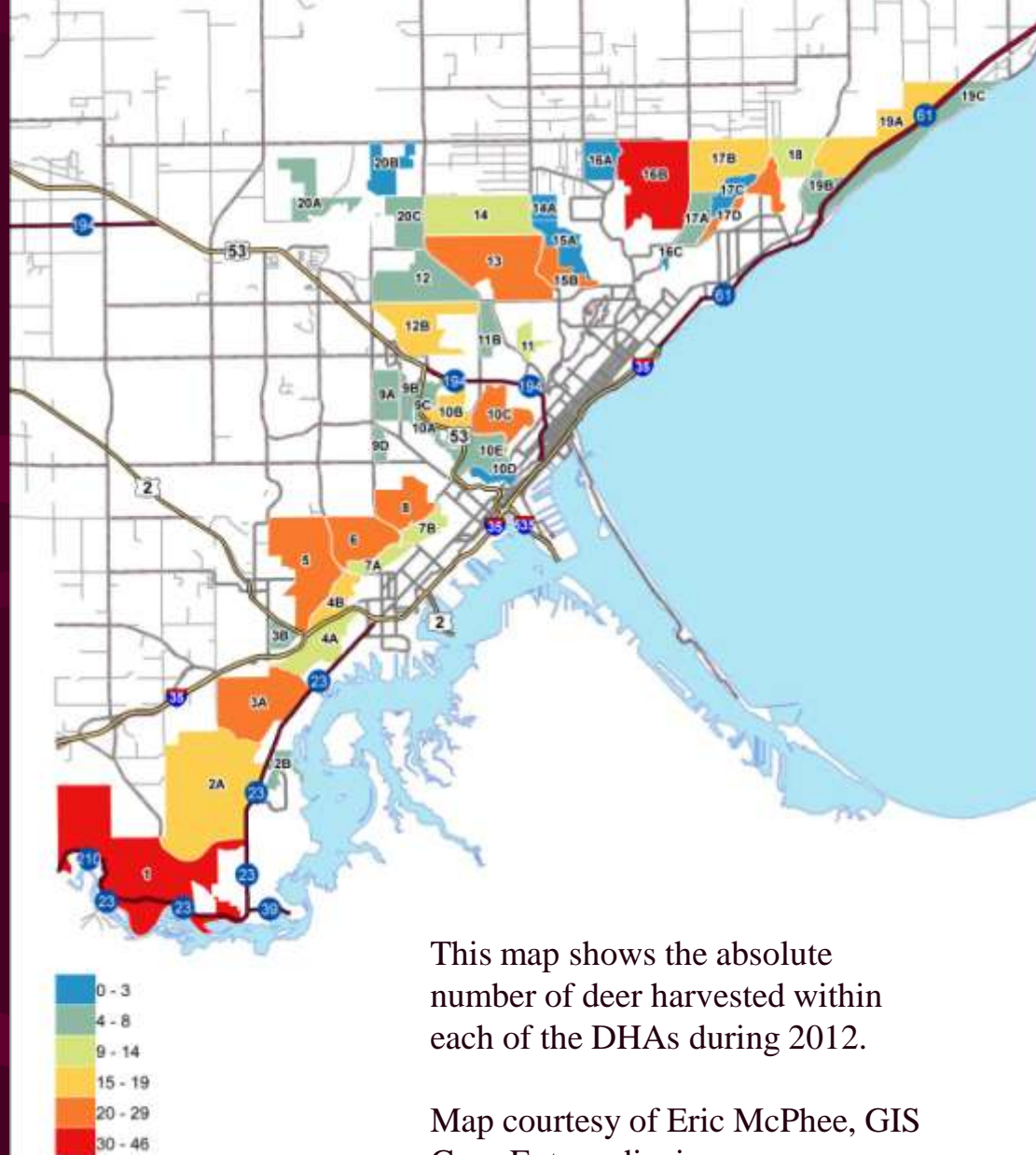
Total Harvest by DHA, part 2

Total Harvest by DHA



Deer Harvest by Zone

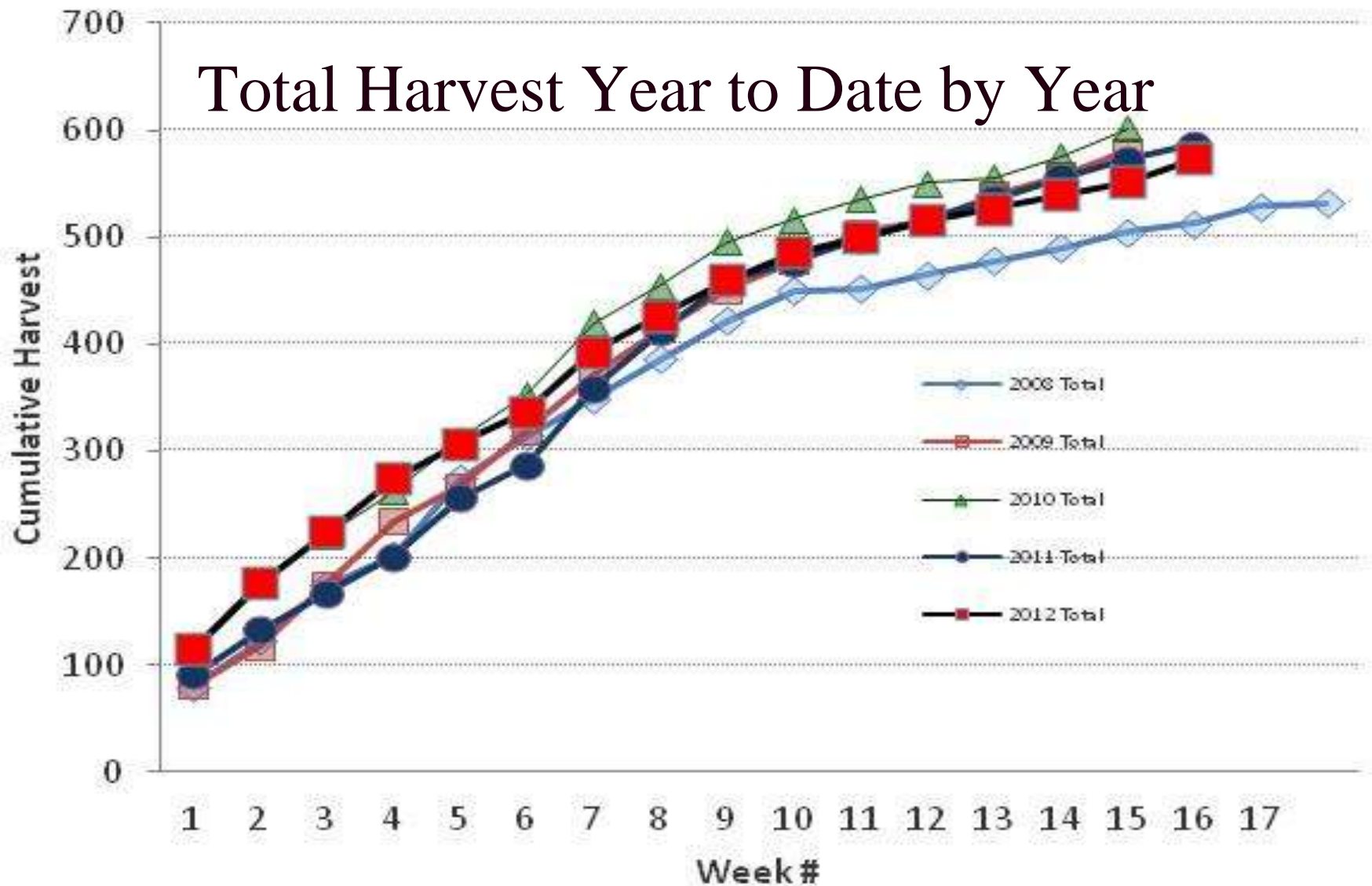
as of Wednesday, January 16, 2013



This map shows the absolute number of deer harvested within each of the DHAs during 2012.

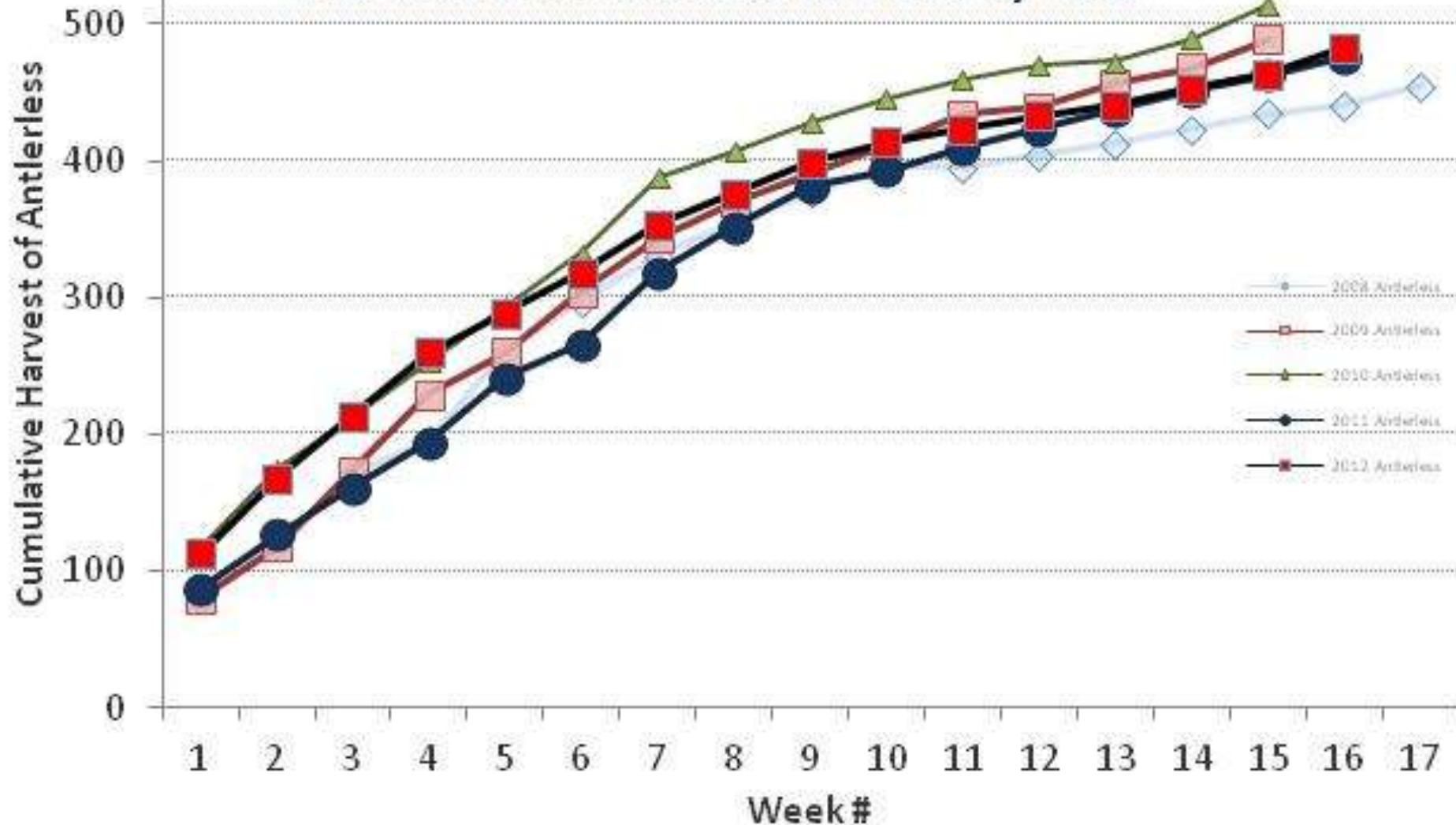
Map courtesy of Eric McPhee, GIS Guru Extraordinaire

Total Harvest Year to Date by Year



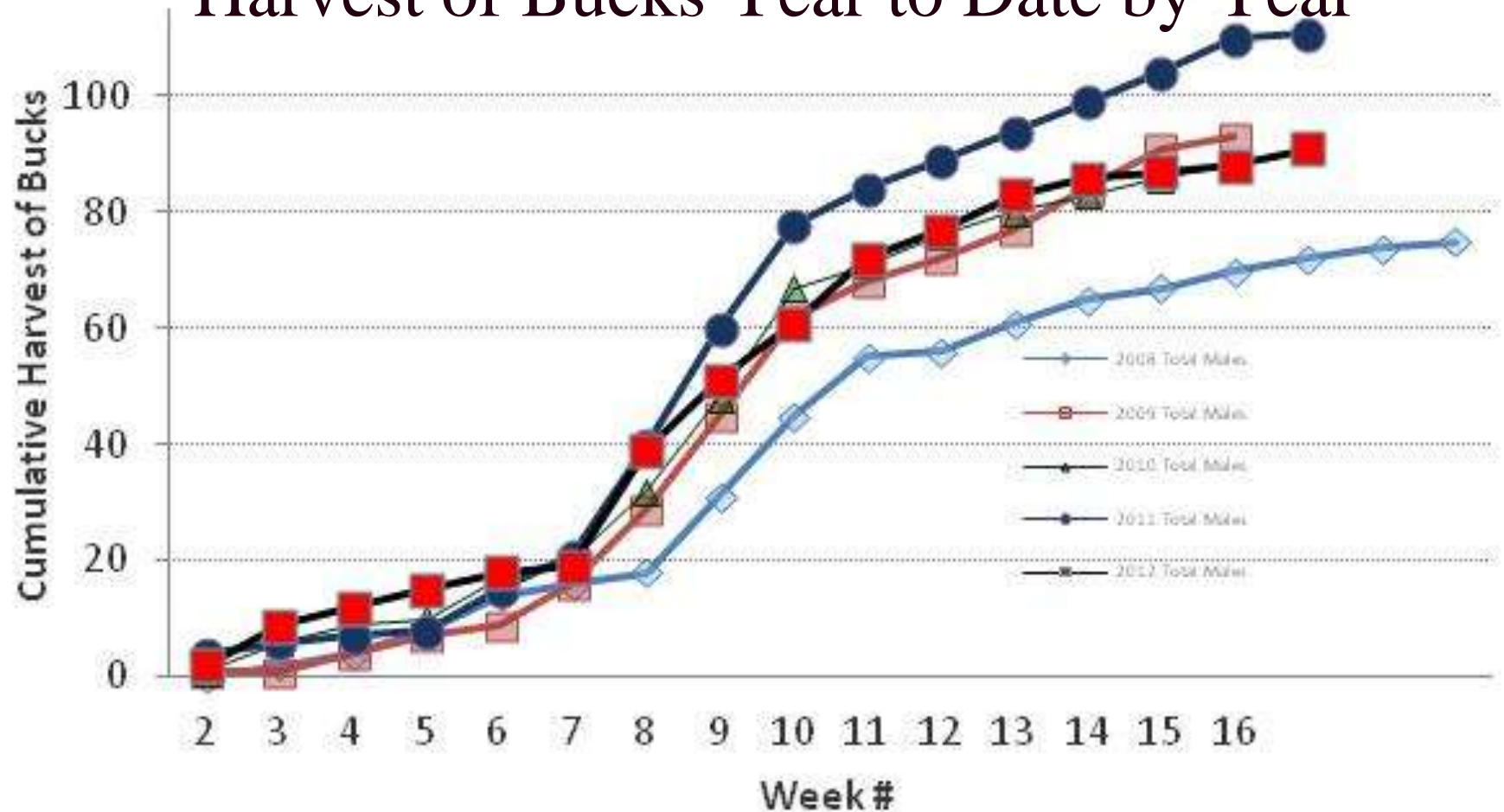
Cumulative total deer harvest, by week, for the last five years of the Duluth Hunt. 2012 data is depicted by the bright red squares. Note that total harvest is higher than 2006 levels, but below the last three seasons. This is raw data, not corrected for the number of participating hunters.

Harvest of Antlerless to Date by Year



Cumulative total antlerless harvest, by week, for the last five years of the Duluth Hunt. 2012 data is depicted by the bright red squares. Note that harvest is higher than 2006 & 2011 levels, but below the 2009 & 2010 seasons. This is raw data, not corrected for the number of participating hunters.

Harvest of Bucks Year to Date by Year



Cumulative total antlered male harvest, by week, for the last five years of the Duluth Hunt. 2012 data is depicted by the bright red squares. Note that total harvest is higher than 2006 levels, but below the last three seasons. This is raw data, not corrected for the number of participating hunters.

Generally Cool Summary Stats

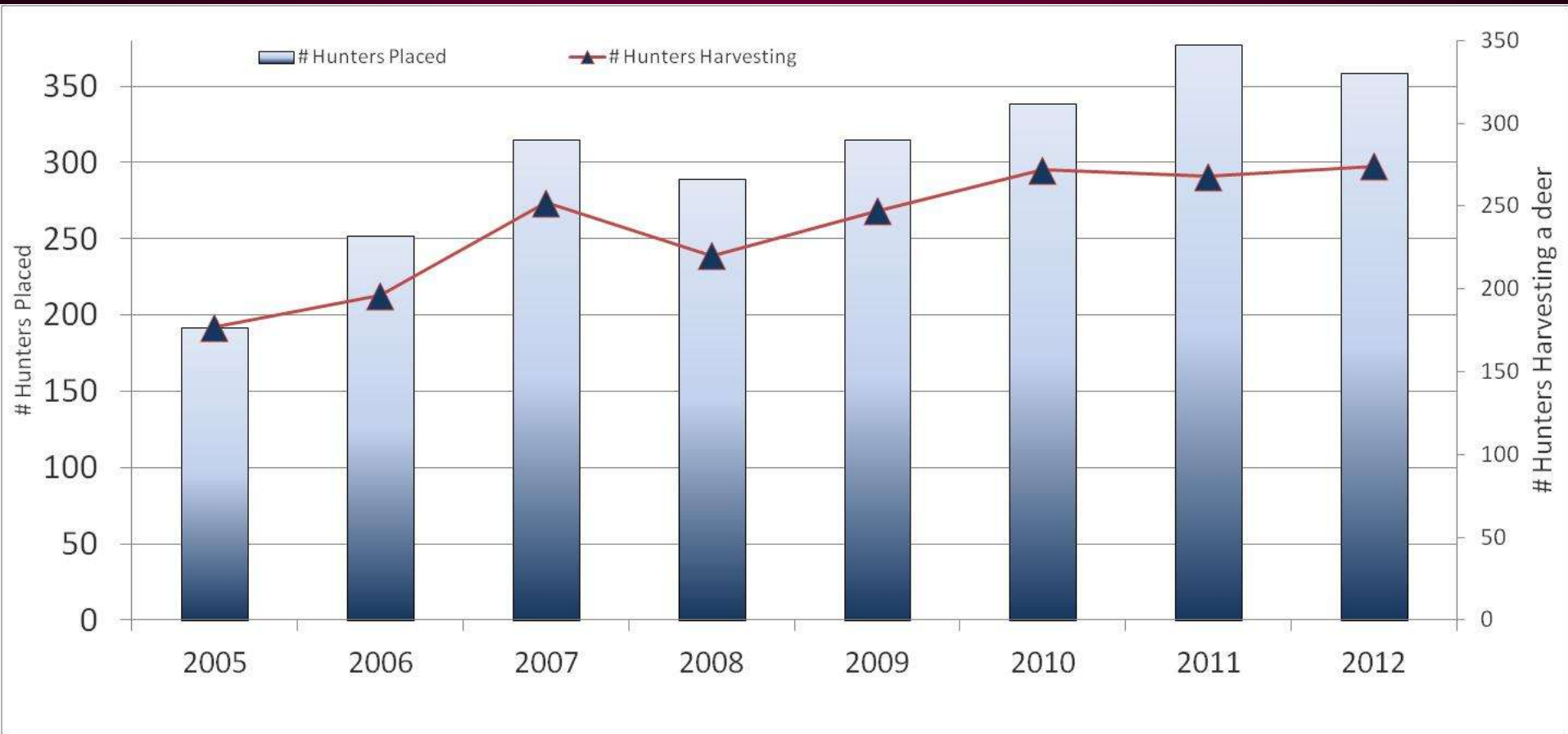
	2012	8-year Average
Total Harvest/Hunter	1.58 ± 0.14	1.78
Buck Harvest / Hunter	0.25 ± 0.04	0.29
Anterless Harvest / Hunter	1.34 ± 0.12	1.50
Harvest / Successful Hunters	2.08 ± 0.14	2.28
Buck Harvest / Successful Hunter	0.32 ± 0.05	0.37
Anterless Harvest / Successful Hunter	1.76 ± 0.12	1.92

General Stats, cont.

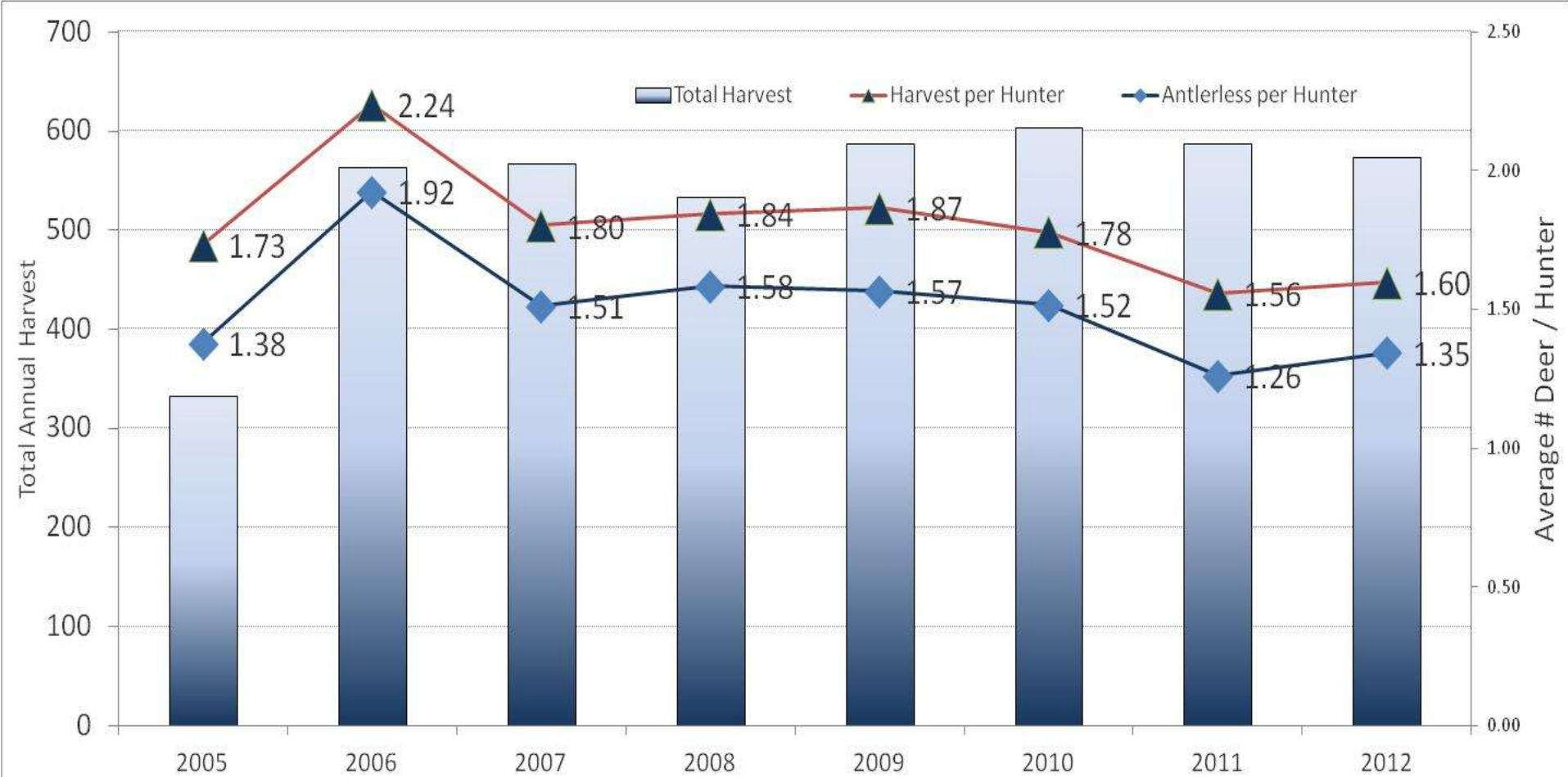
In the previous table, the Totals / Hunter include all registered hunters. This includes all of the hunters that failed to harvest any deer. Not knowing whether this was the result of not spending much time in the woods, or not even getting into the woods is unknown to me. Thus, I removed all of the zero-harvest hunters, and reported harvest / successful hunter. 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 0.29 bucks / year, but shoots 1.50 antlerless deer / year, over the last eight seasons.

Successful hunters shot 0.37 bucks / year over the last eight years in Duluth. Successful hunters shot 1.92 antlerless / year over the last eight years in Duluth, well above the MN average. That's **TWO** antlerless per hunter!

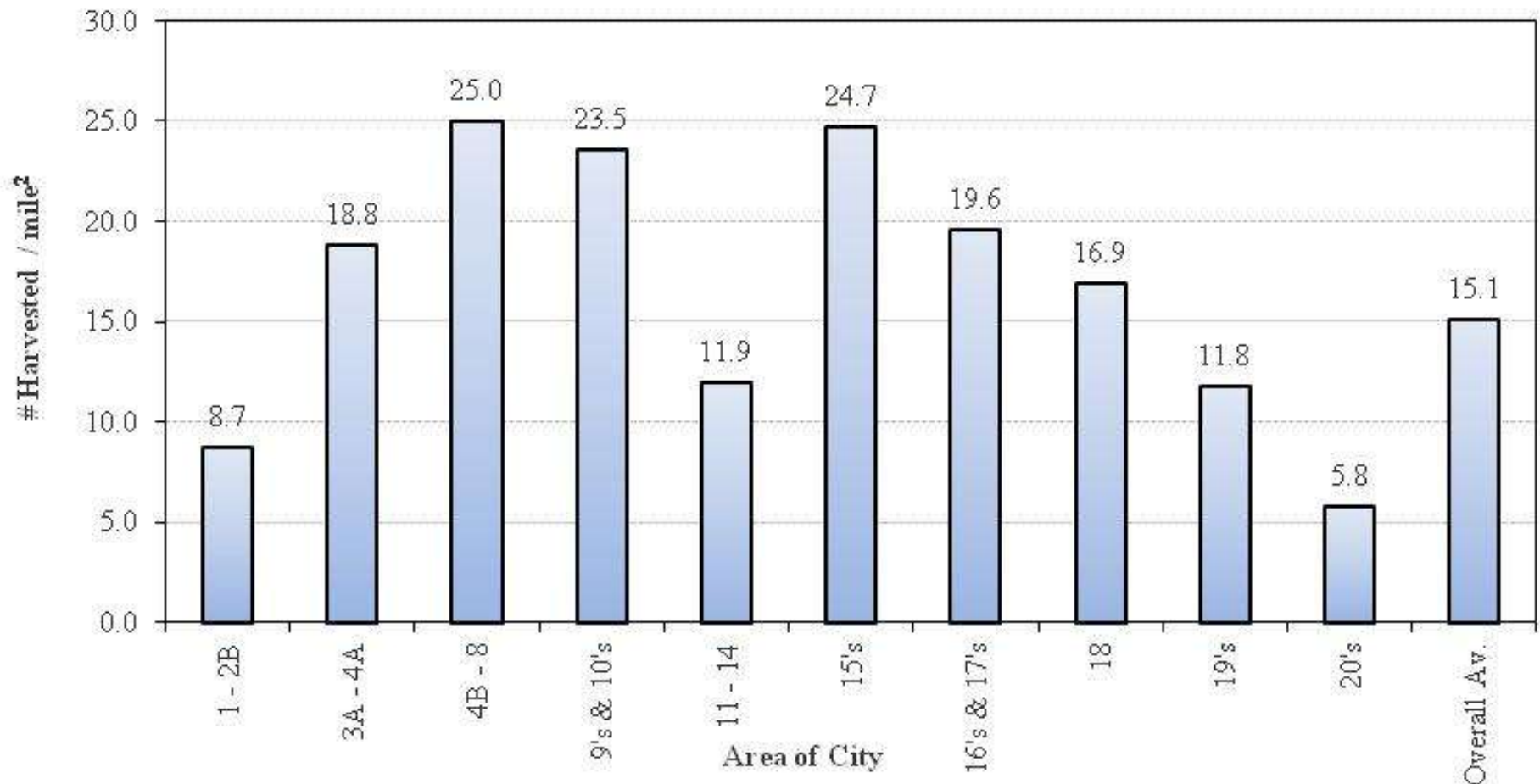


The trend over the previous four years (2008 – 2011) had been an increase in participation, until 2012. Hunter success appears to have leveled off at just under 275 successful hunters. In 2012, we observed a decrease in participation and only a slight, albeit statistically insignificant, increase in success.



Total harvest was down slightly again in 2012. But with the decrease in the number of hunters, the actual harvest per hunter was actually up slightly, though not statistically significant ($P=0.7622$). Further, while the antlerless harvest per hunter was slightly higher than in 2011, it was still the second lowest on record at 1.35 per hunter.

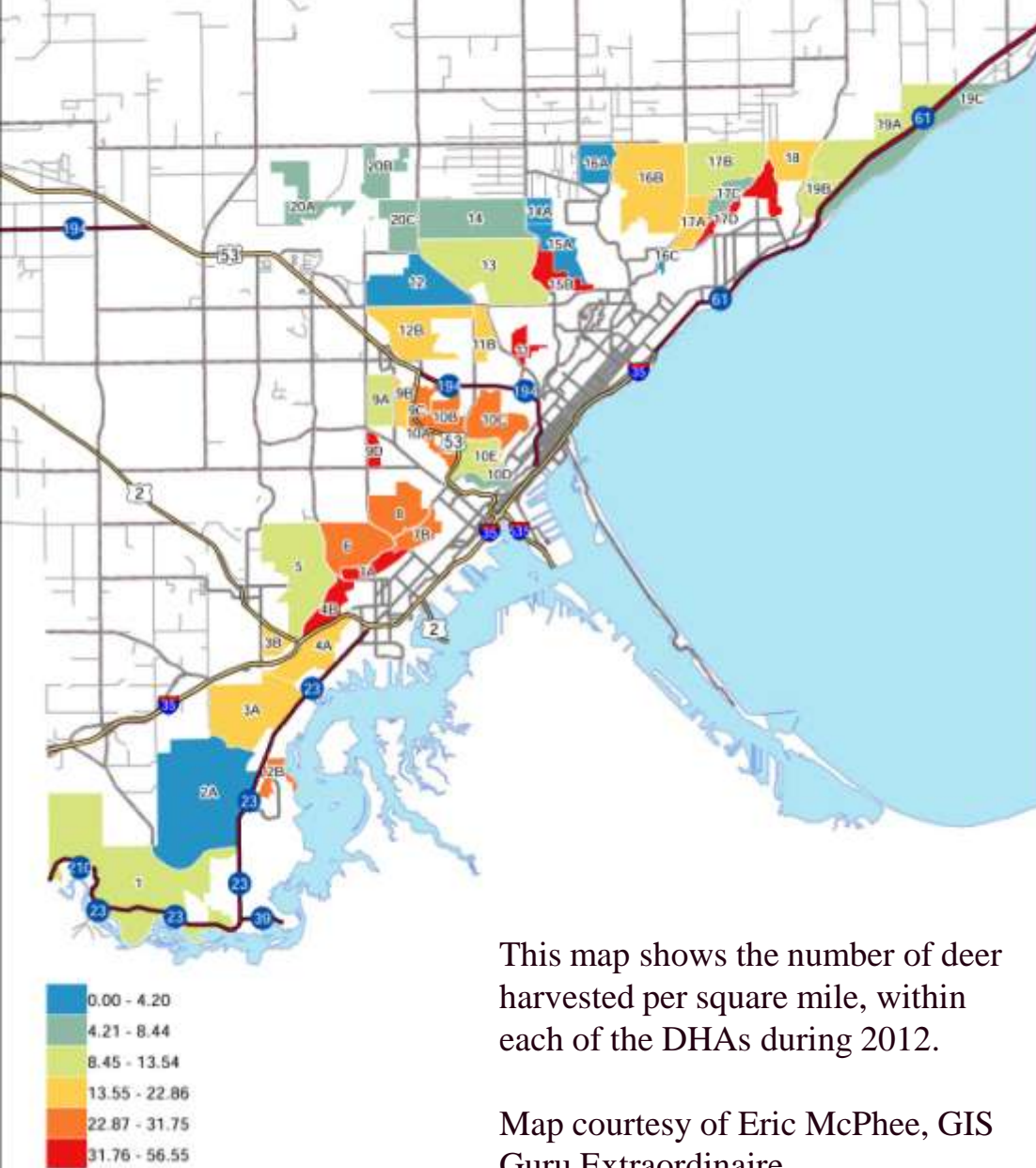
2012 Harvest per square mile



This graph depicts the number of deer harvested per square mile in the various geographical areas of Duluth, during 2012. Overall harvest in the City was 15.1 deer harvested / mile² of DHA land.

Deer Harvest / Sq Mile

as of Wednesday, January 16, 2013

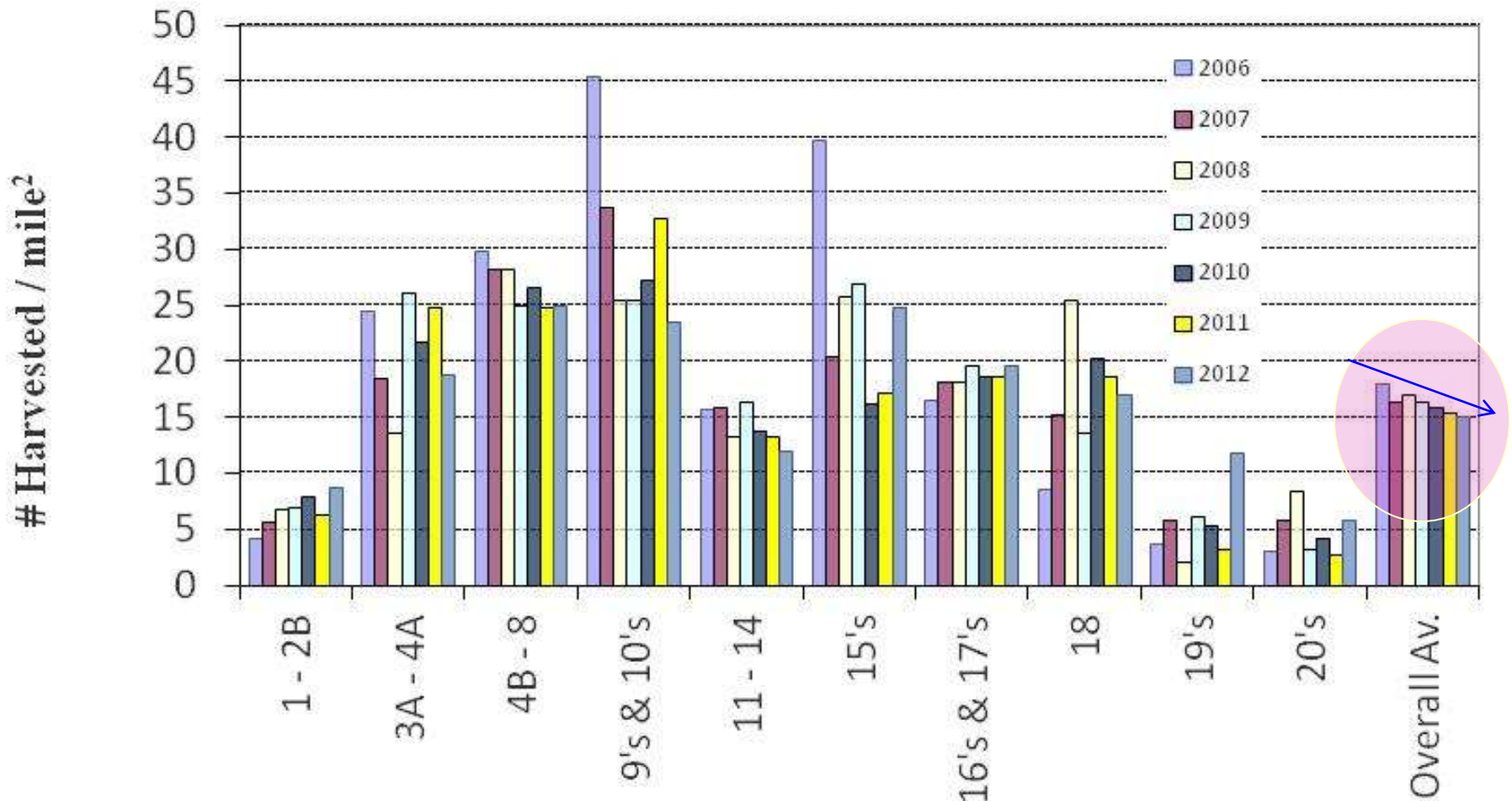


This map shows the number of deer harvested per square mile, within each of the DHAs during 2012.

Map courtesy of Eric McPhee, GIS Guru Extraordinaire

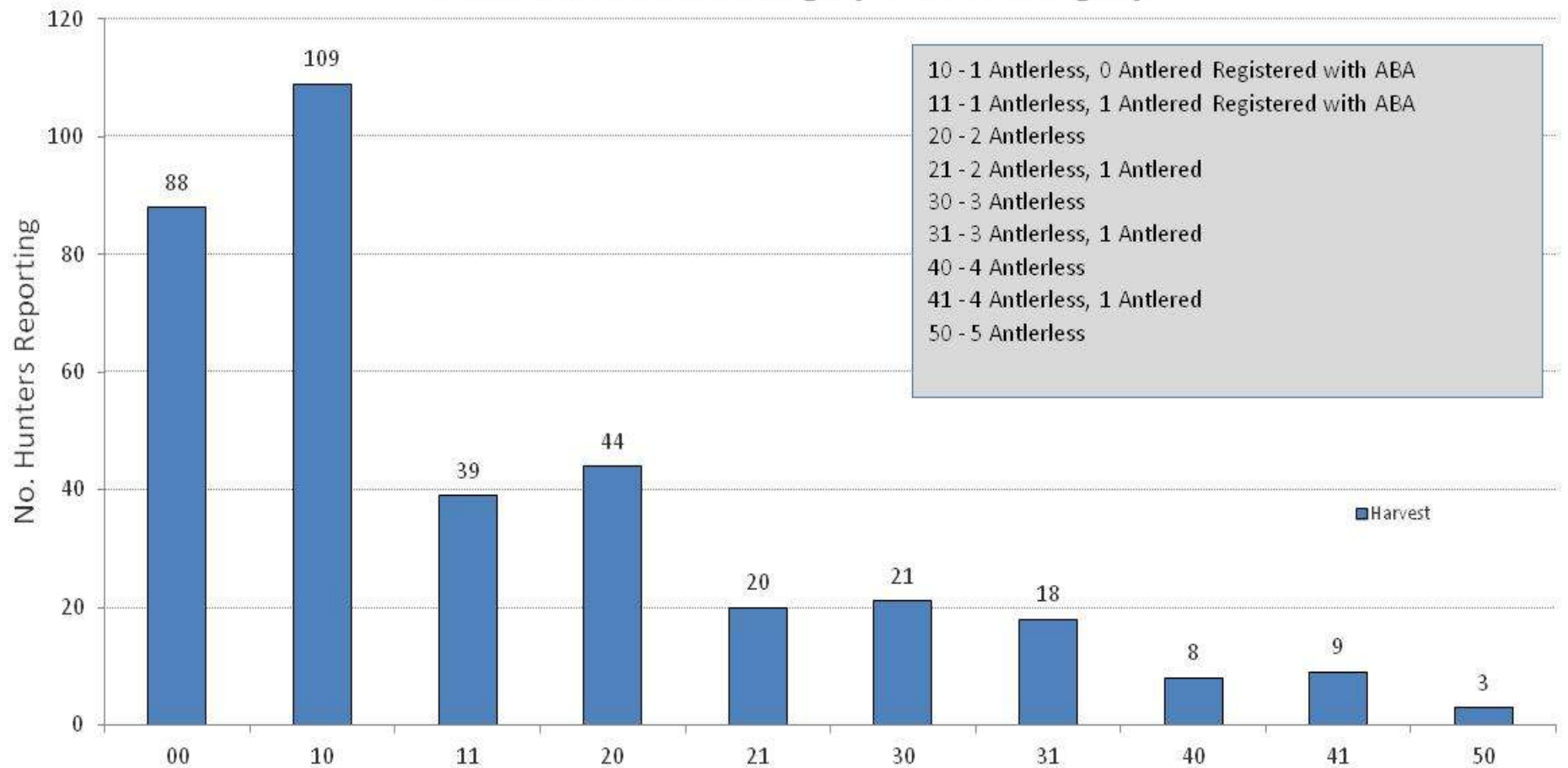


Harvest / mile² Last Six Seasons



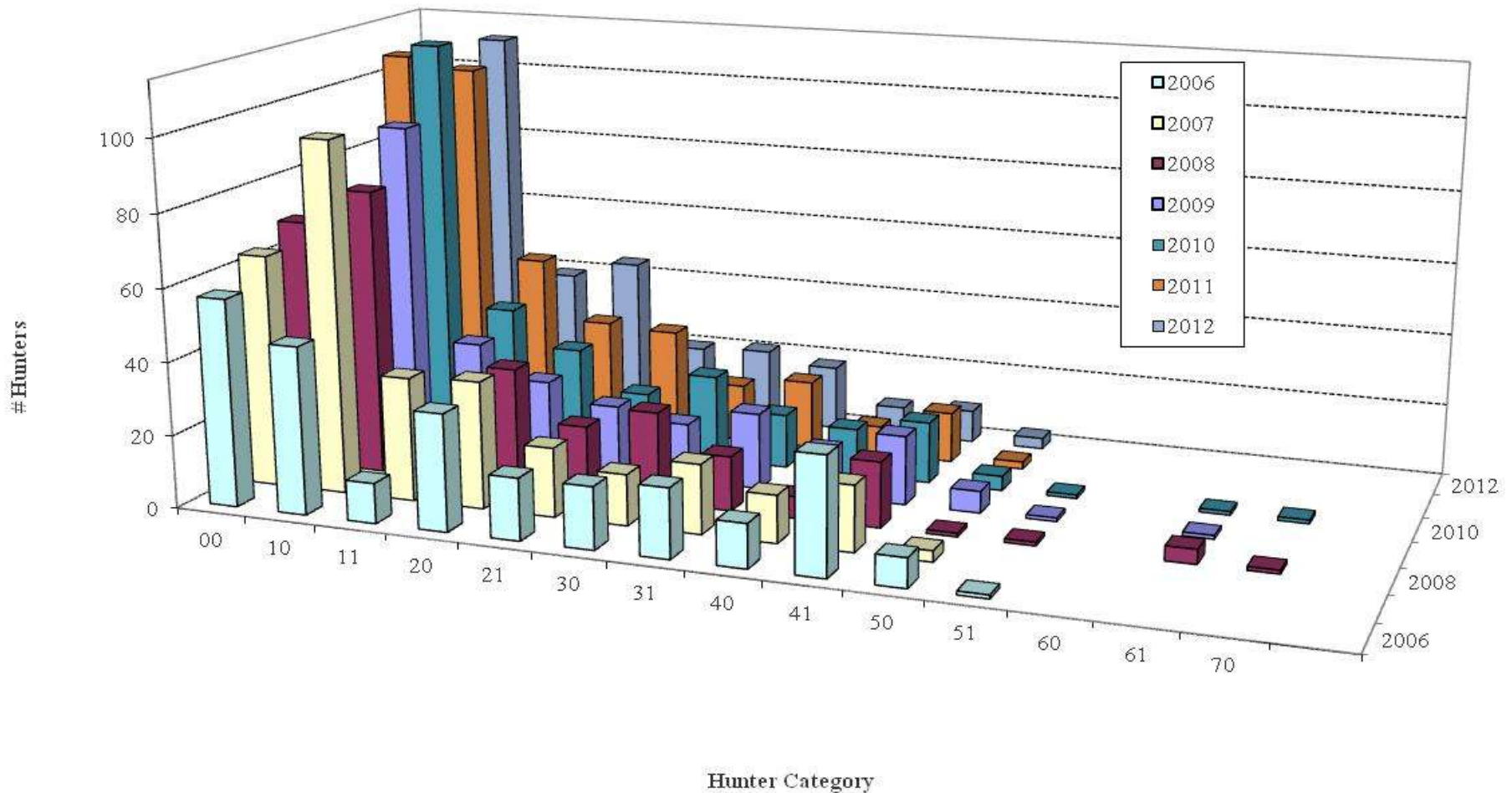
Harvest / mile² since 2006, showing a gradual decline in the overall harvest. 2005 data, the first year of the hunt, had slightly different DHAs, so this data is not presented.

No. Hunters Harvesting by Deer # Category

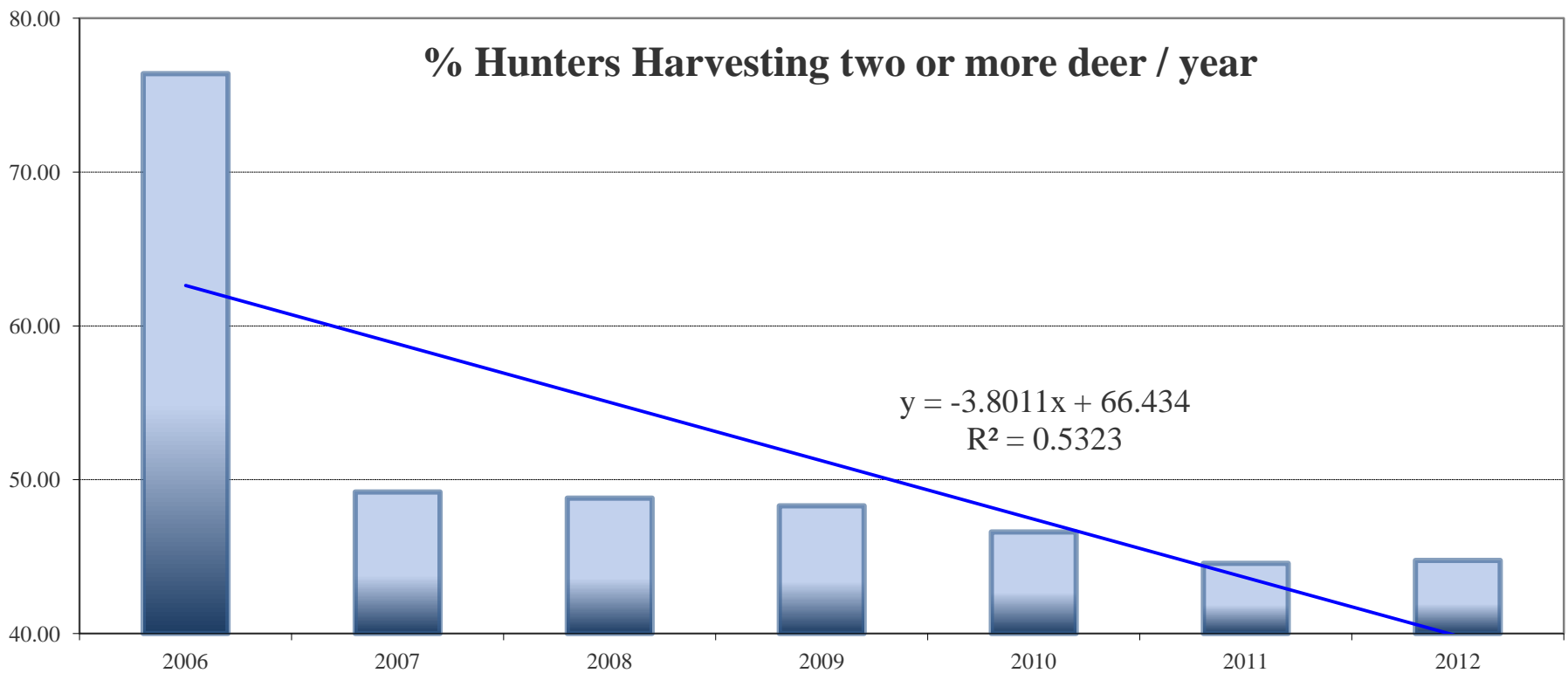


109 hunters only registered one antlerless deer during the 2012 season, whereas 88 hunters failed to harvest a deer. Twelve hunters harvested all five deer in Duluth, either four does and a buck (41), or five does (50).

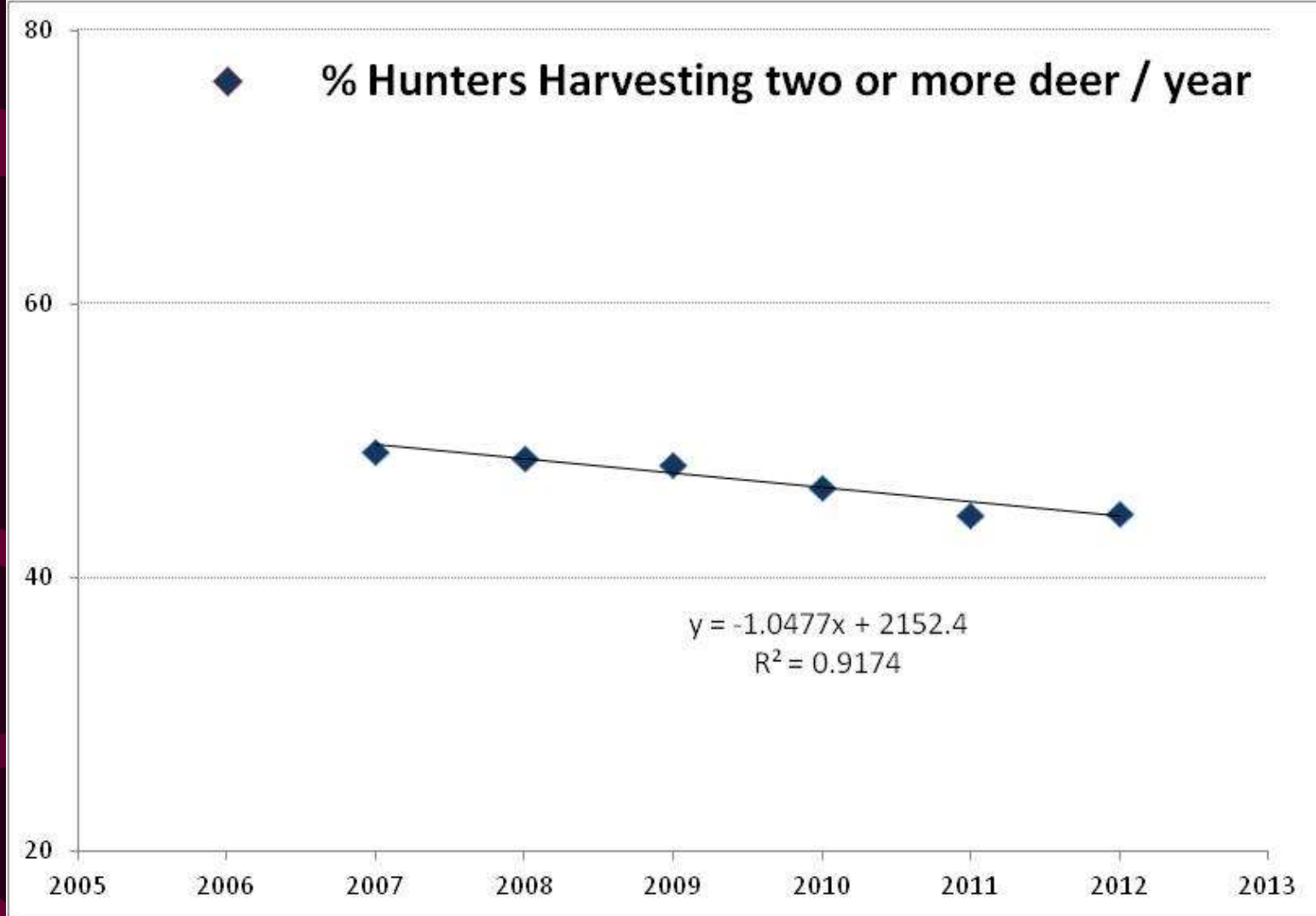
Hunter Harvest, Last Eight Years



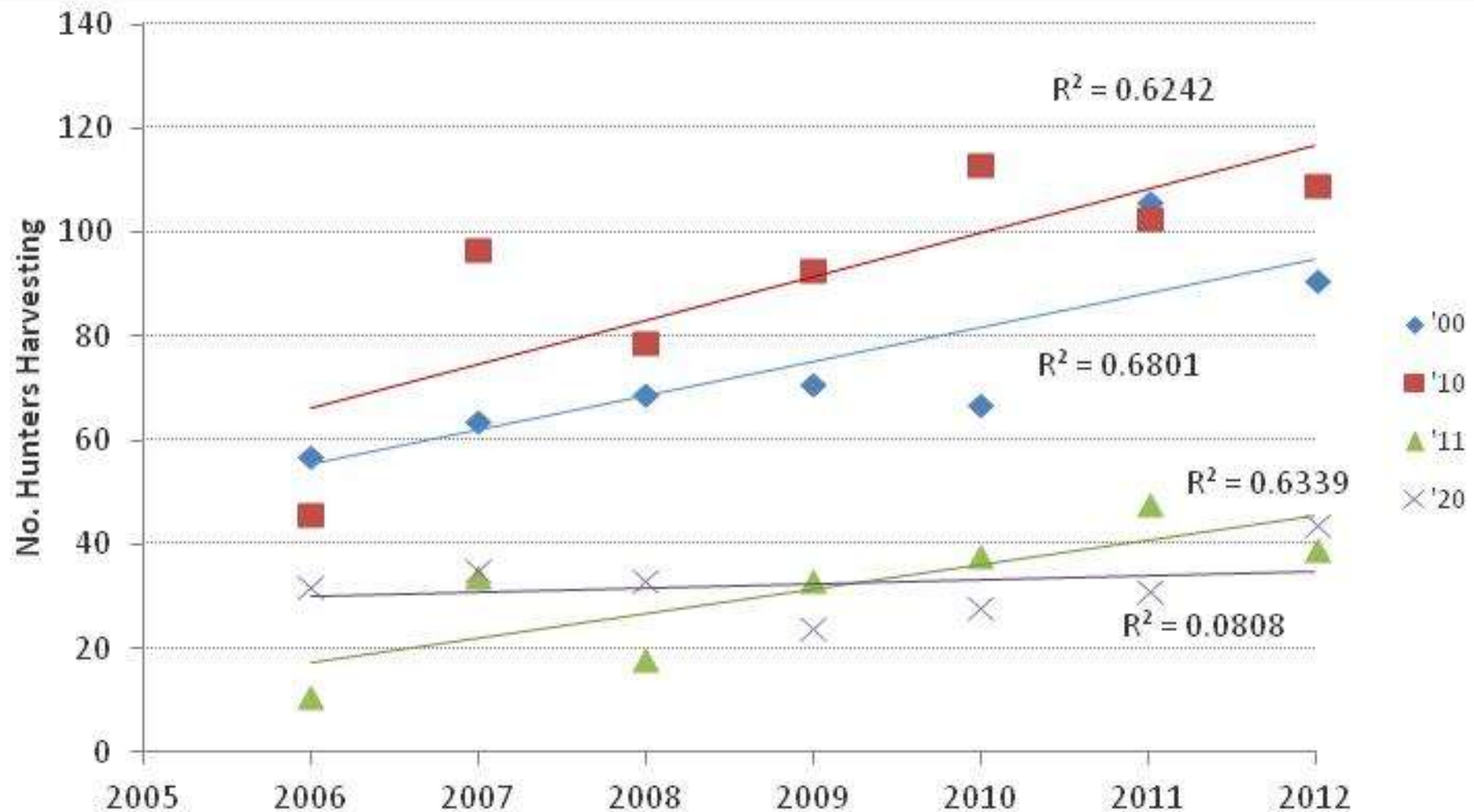
- This graph shows the harvest for hunters since 2006. Note that the largest number of hunters harvesting 5 deer (41 or 50) was highest in 2006, declining since. 2008 – 2010 had the early season antlerless program, allowing Duluth hunters to harvest two additional antlerless deer during mid-October



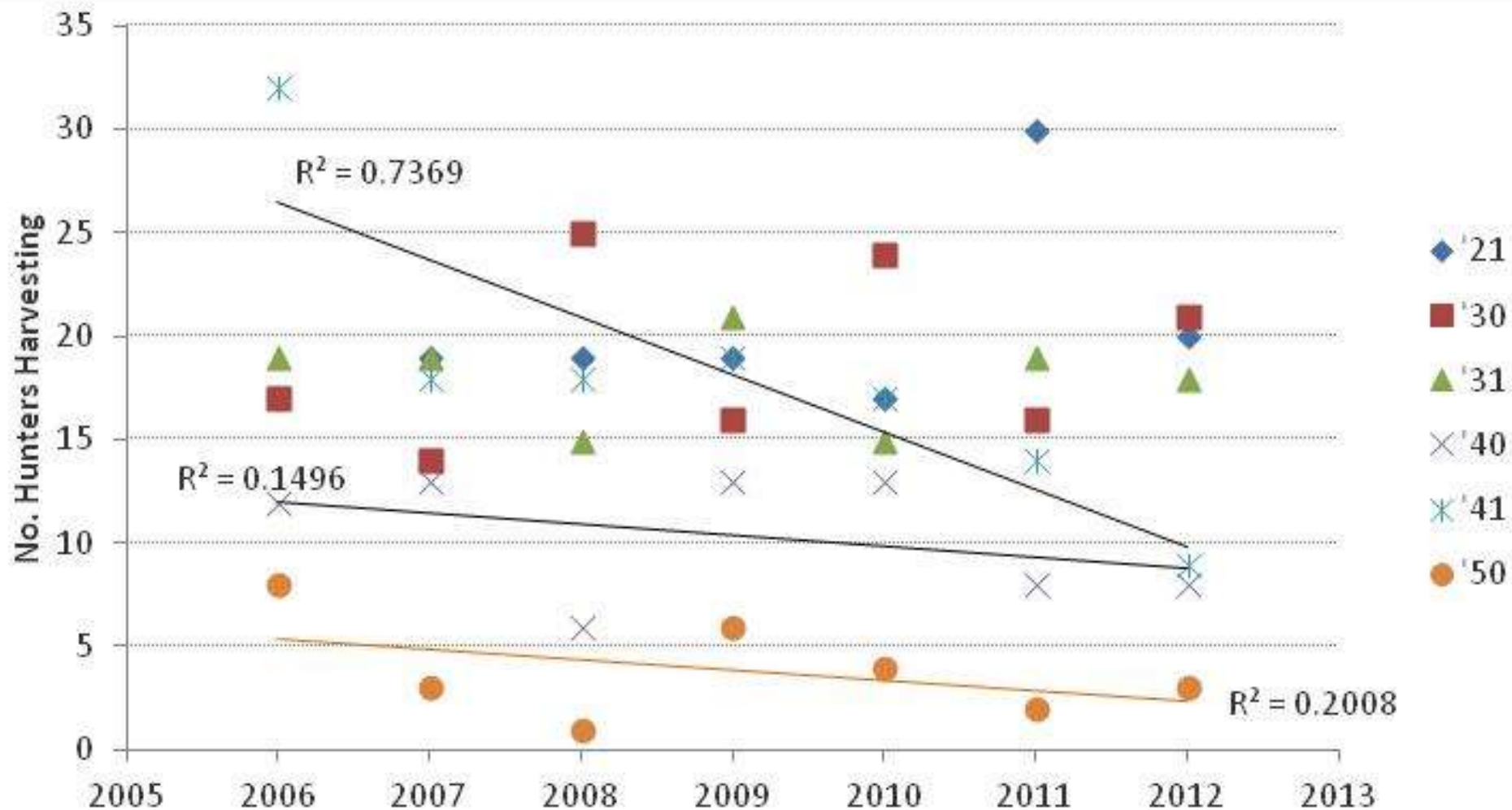
For the last seven years, the number of hunters harvesting two or more deer has been on the decline, but this is largely influenced by the 2006 season.



Same data as the previous graph, except that the highly influential 2006 point was removed from the regression analysis. While the regression line better explained the variance in the data (higher R^2), the slope is not significantly different than zero. This suggests that the rate of success for hunters harvesting more than two deer per year has not changed over the last six years.



This shows the number of hunters harvesting 0 deer (00, blue diamonds), one antlerless (10, red squares), and one doe / one buck (11, green triangles) has been increasing since 2006. The number of hunters harvesting 2 antlerless (20, purple X's) has been stable (this graph and the previous one). Does this indicate that hunters are getting better at harvesting at least one antlerless deer, or is it getting harder to shoot more than 2 antlerless?



There appears to be a significant decline in the number of hunters harvesting > 4 deer (40, 41, and 50). As these hunters fail to harvest more than 4 deer, they fall into the lower categories (e.g. 20), leading to the observed increase in hunters within those categories (see previous graph).

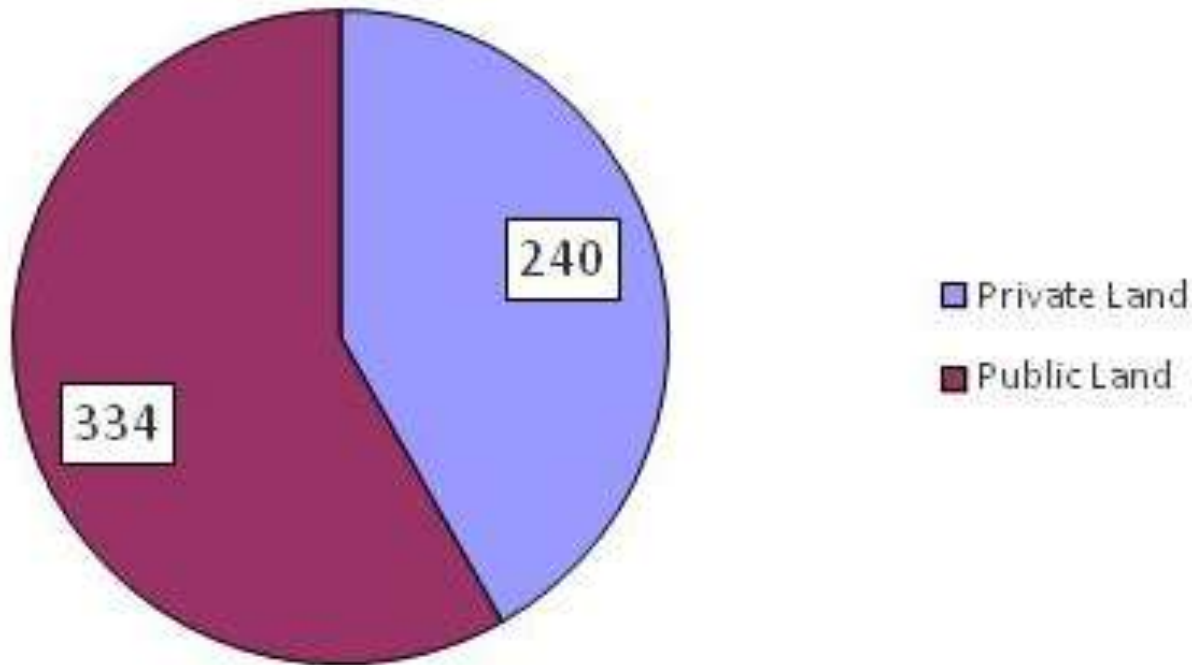
- 
- A photograph of a hunter in camouflage gear kneeling in a forest next to a harvested deer. The hunter is holding a bow and looking at the camera. The deer is lying on the ground, and the background is a wooded area with bare trees.
- This year's 15.1 deer / mi² harvest rate was the lowest ever observed, even lower than 2011's record low of 15.4.
 - 45.1 % of hunters harvested 2 or more deer.
 - 46.6% in 2010
 - 44.5% in 2011
 - Have we stabilized at harvest levels, and are the good old days of 2006 – 2008 over?

Public vs. Private Lands

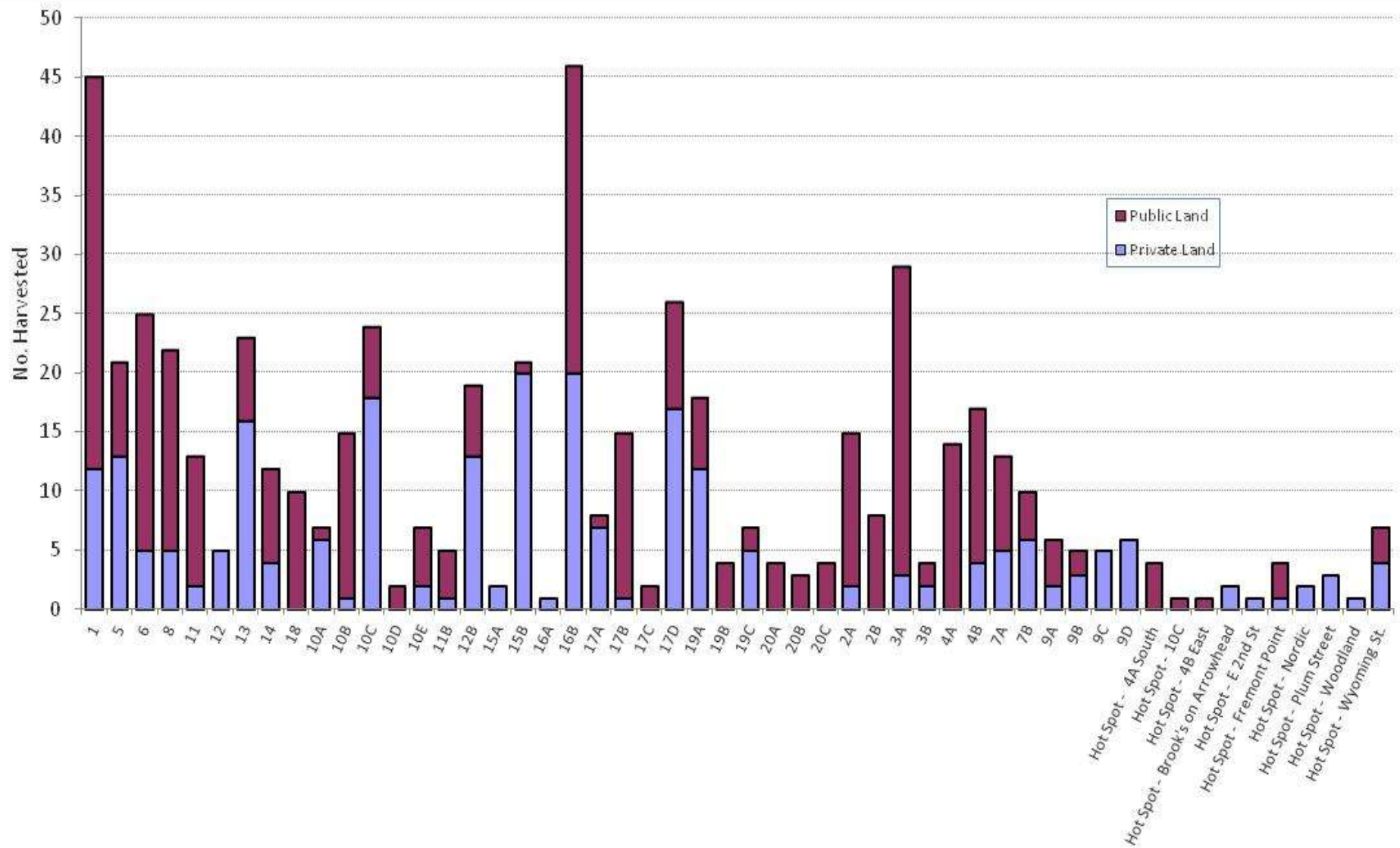
- 58.2% of harvest from Public Lands
- 41.8% of harvest from Private Land
- Demonstrates importance of forging positive relationships with Duluth property owners!
- 284 Different properties registered in 2012
- 172 Hunters turned in LOPs
 - Board knows of some hunters that never filled in the on-line registration form

Public vs. Private Land Harvest

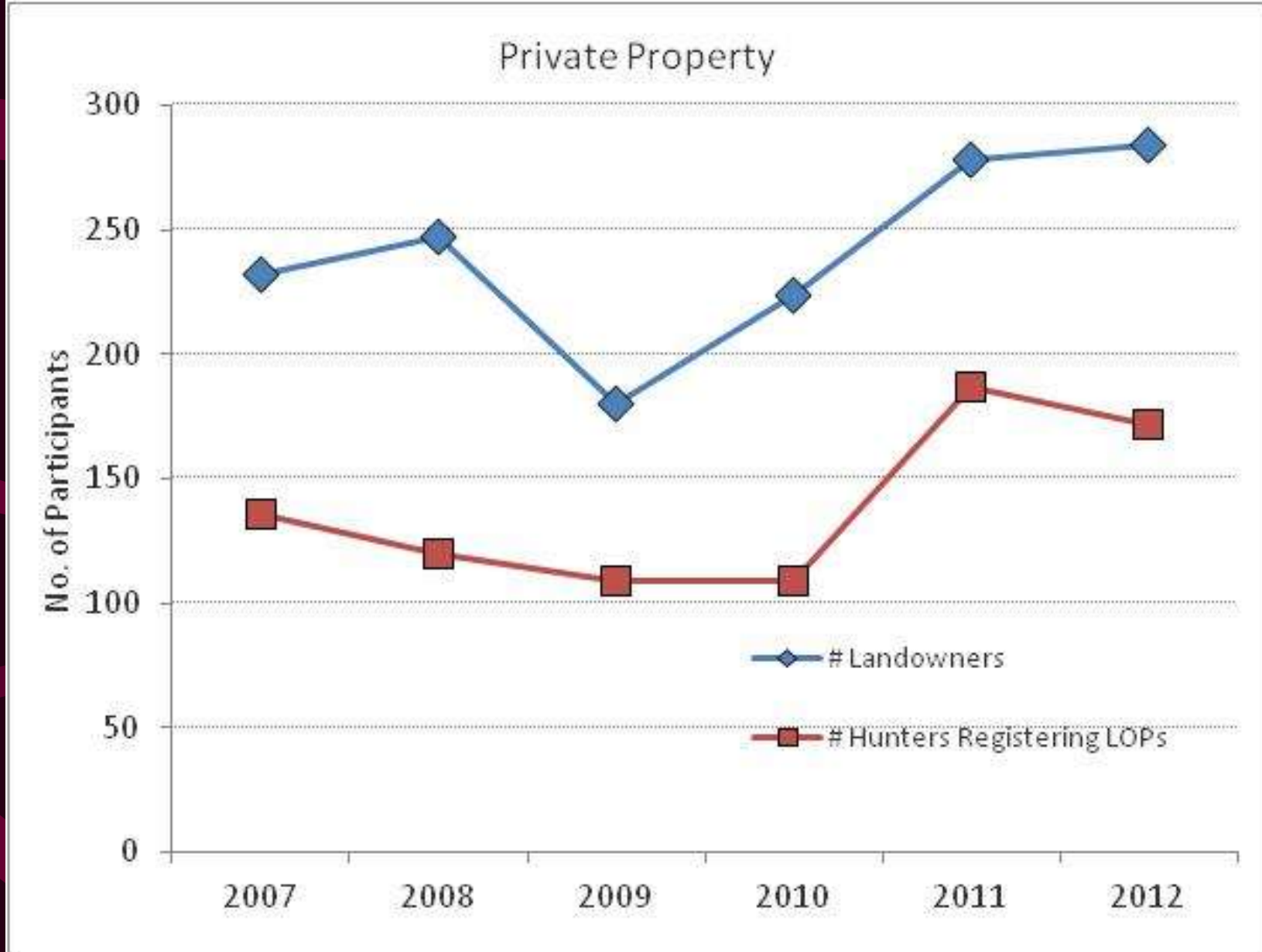
Total No. Deer



240 of the 574 registered deer in 2012 were harvested because Duluth landowners allowed our hunters access to their private property.



The number of deer harvested on public and private lands within each DHA in 2012.



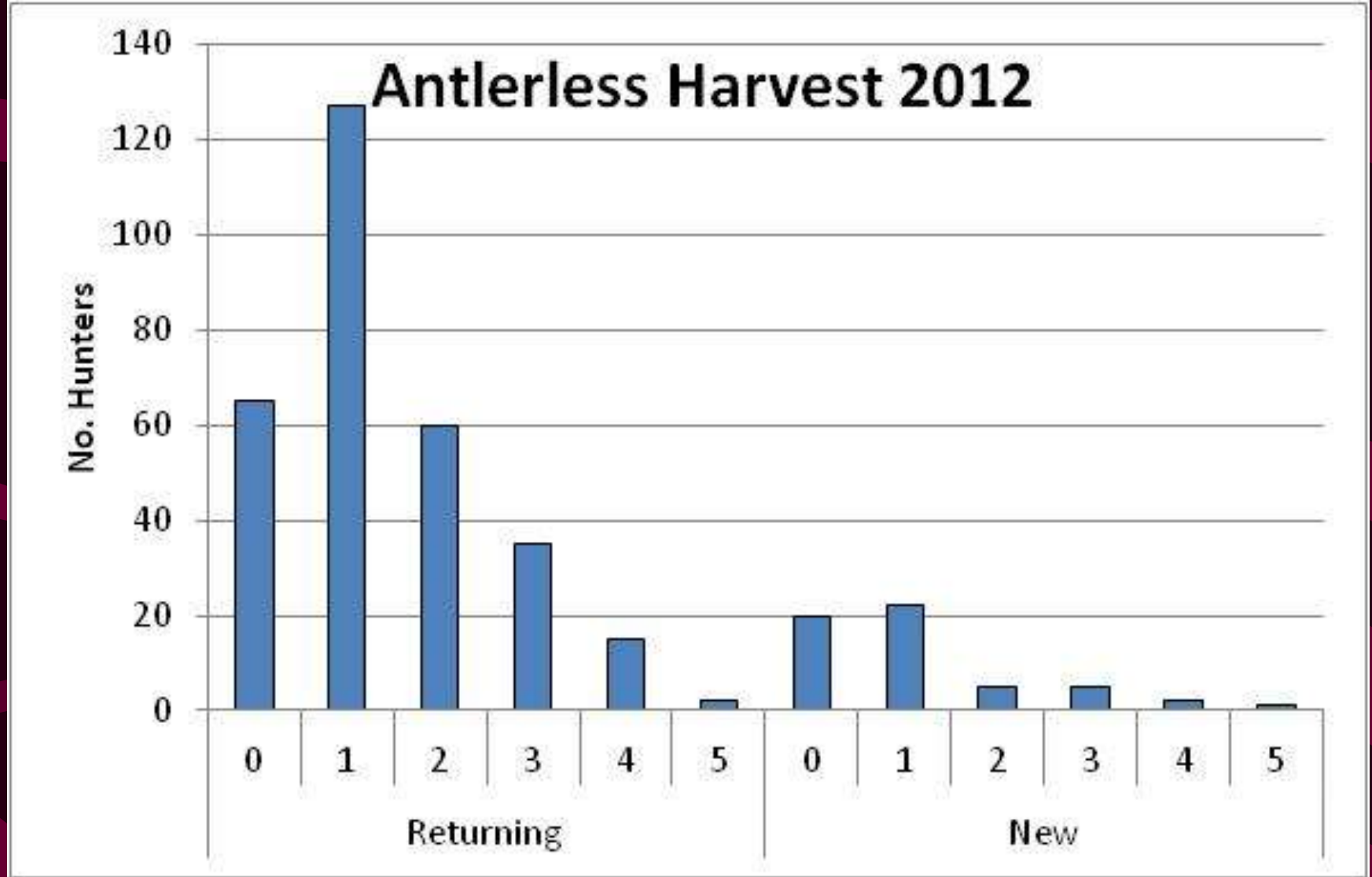
It appears that the number of landowners allowing access to their private property has been on the increase.

Private Properties

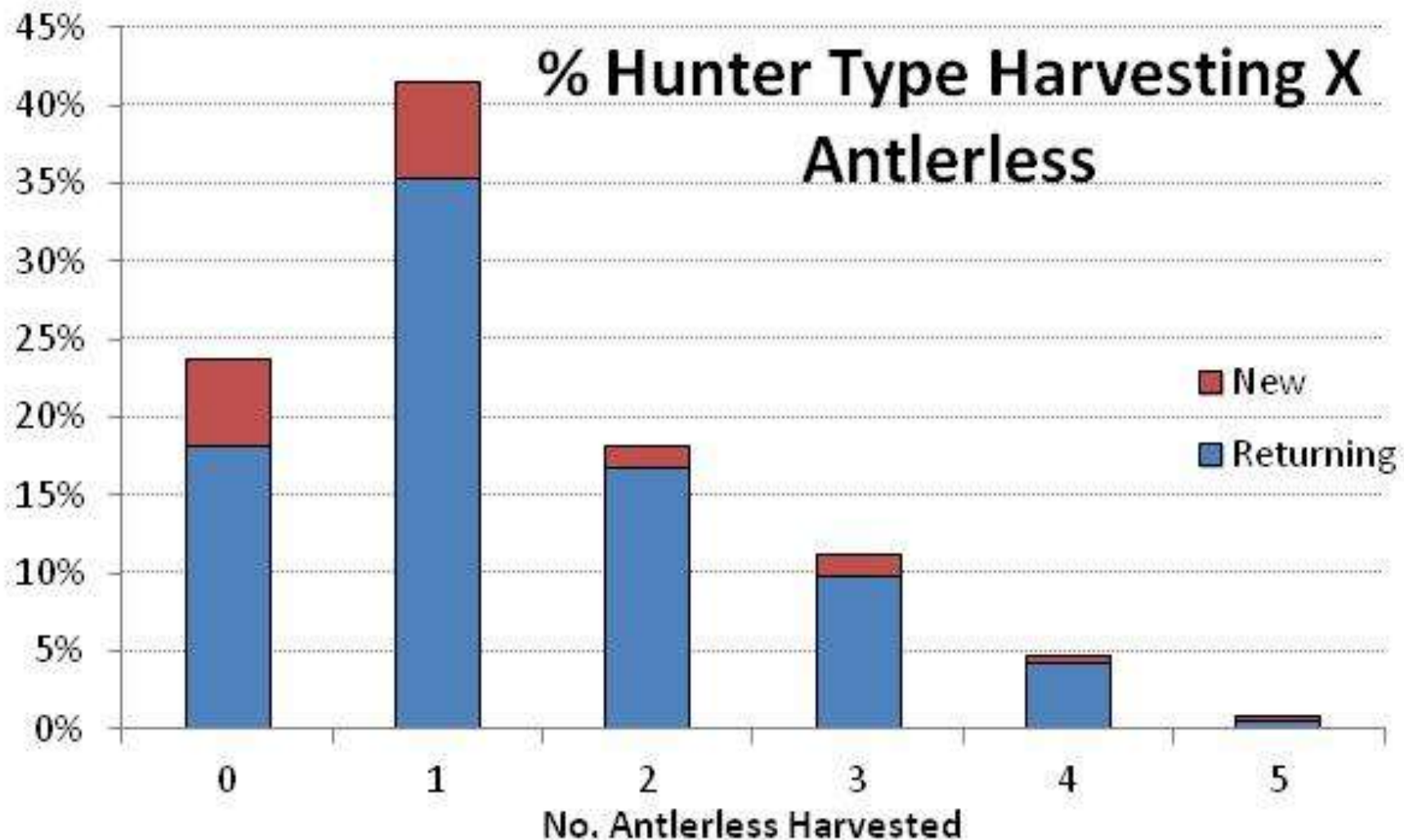
- 2012 saw the highest participation by private landowners, allowing Duluth hunters access to their properties.
- We did observe a decline, however, in the number of hunters accessing private lands, or at least registering them.
- Thus, we might be seeing fewer hunters locking up more private lands. 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 2013. We're here to remove deer for the citizens of Duluth. Having 27 pieces of property, and only five tags in your pocket, doesn't accomplish this mission. Find a buddy, and share some stands to help remove more deer.

Returning vs. New Hunters

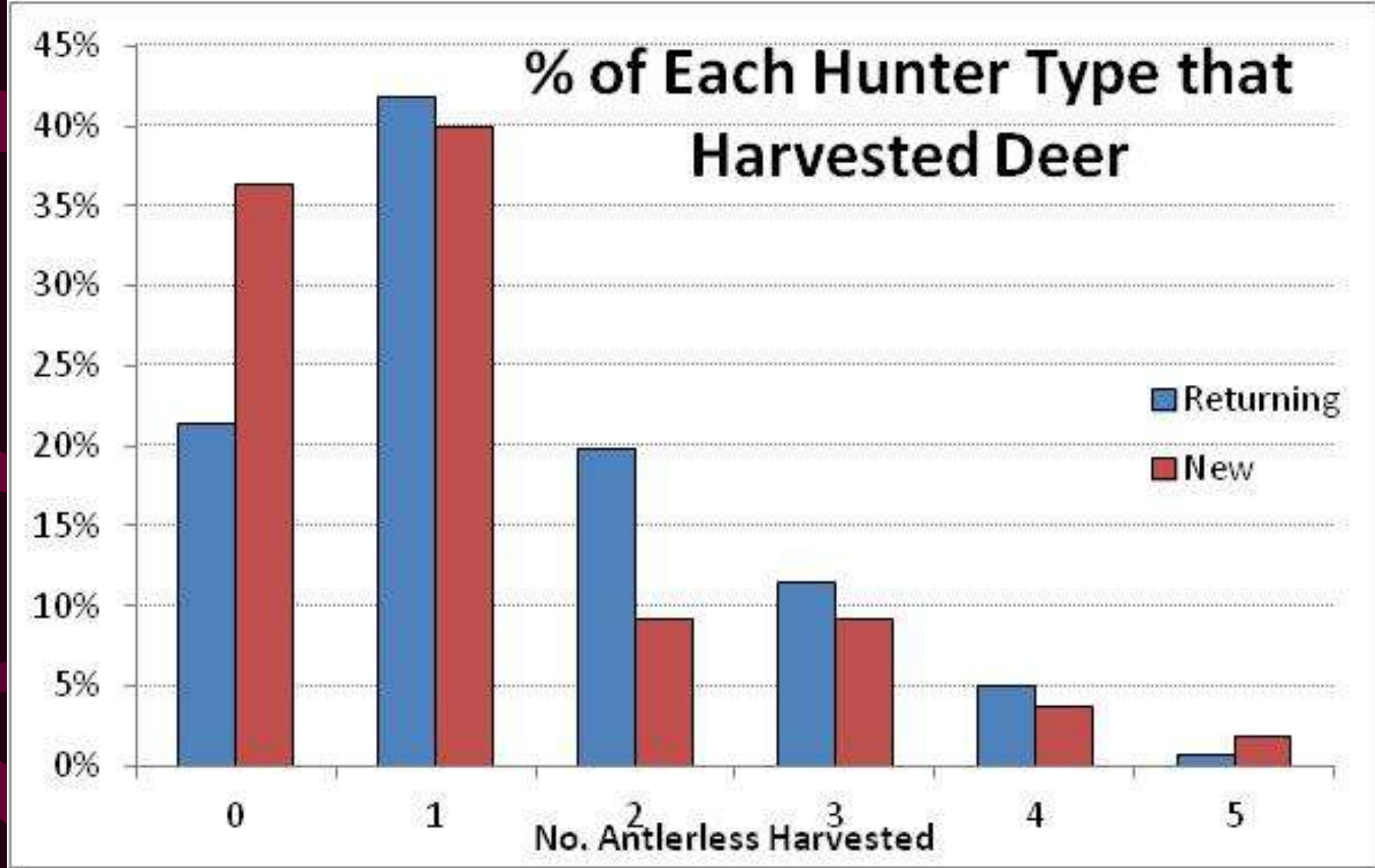
- **238 of 304 Returning Hunters Harvested:**
 - 422 Antlerless
 - 83 Antlered
 - 78.3% of Returning Hunters registered a deer
- **35 of 55 New Hunters Harvested:**
 - 60 Antlerless
 - 5 Antlered
 - 63.6% of New Hunters registered a deer
- *For the ones who actually test my math, you will note that this adds to 570. We had 4 deer poached this season, and included in the 574*



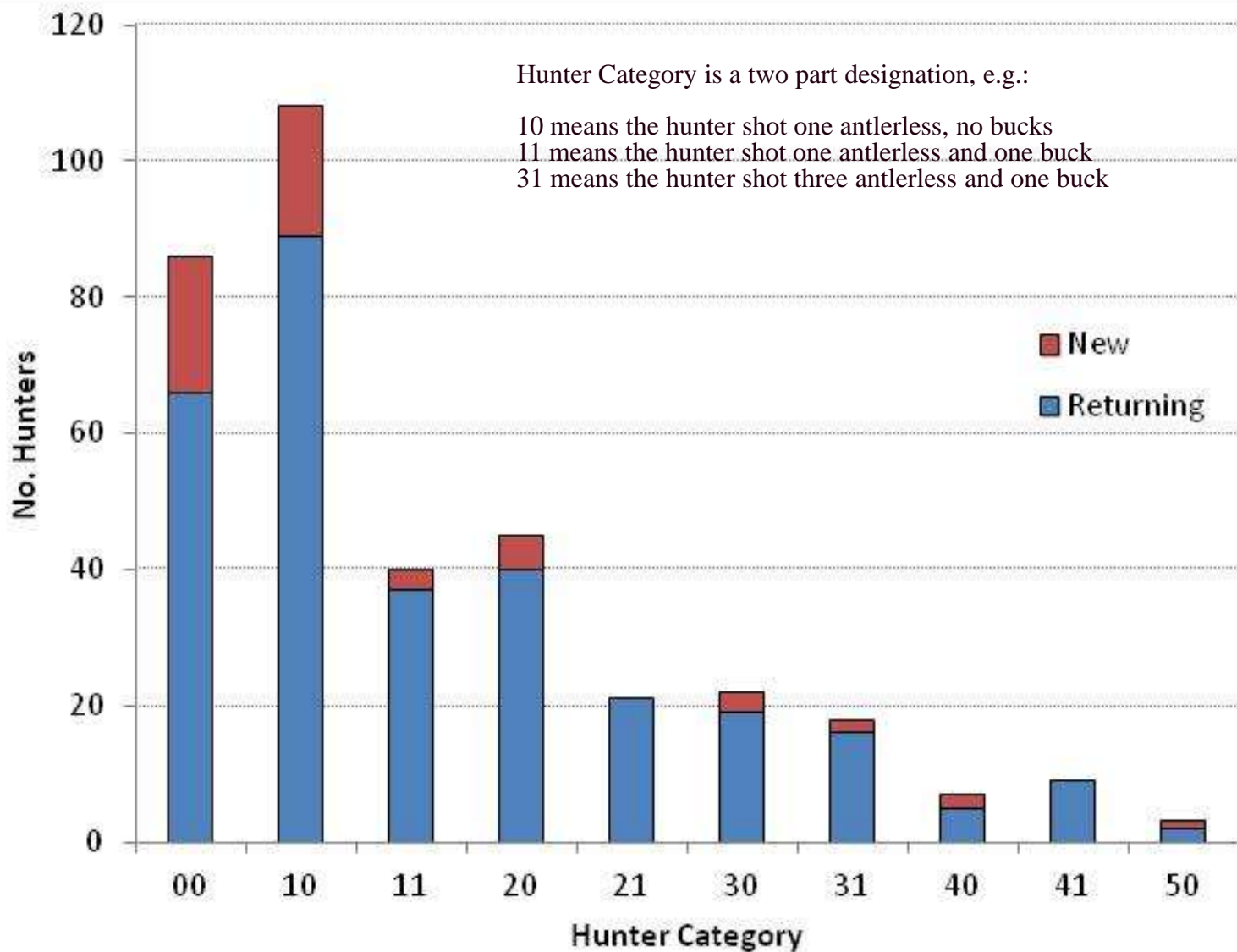
Number of antlerless harvested by New and Returning Hunters. 66 returning hunters and 20 new hunters failed to harvest a deer during the 2012 season.



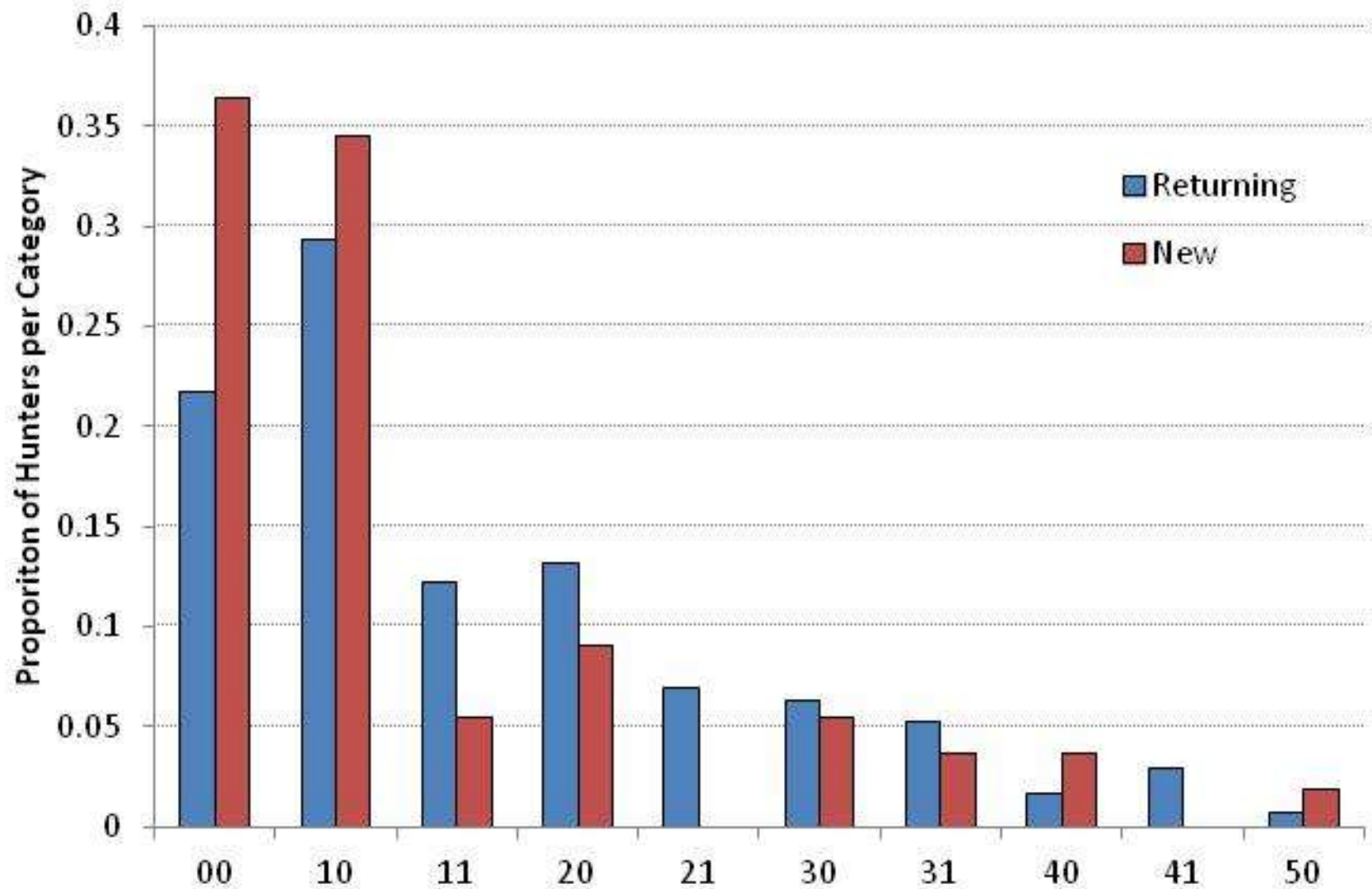
% of Hunters, broken down by new and returning, that harvested the number of antlerless indicated. Thus, approximately 24% of all hunters failed to register any antlerless, with 18% of those being Returning Hunters, and 6% being New. About 42% of all hunters registered one antlerless, identified as 35% Returning, and 7% New hunters.



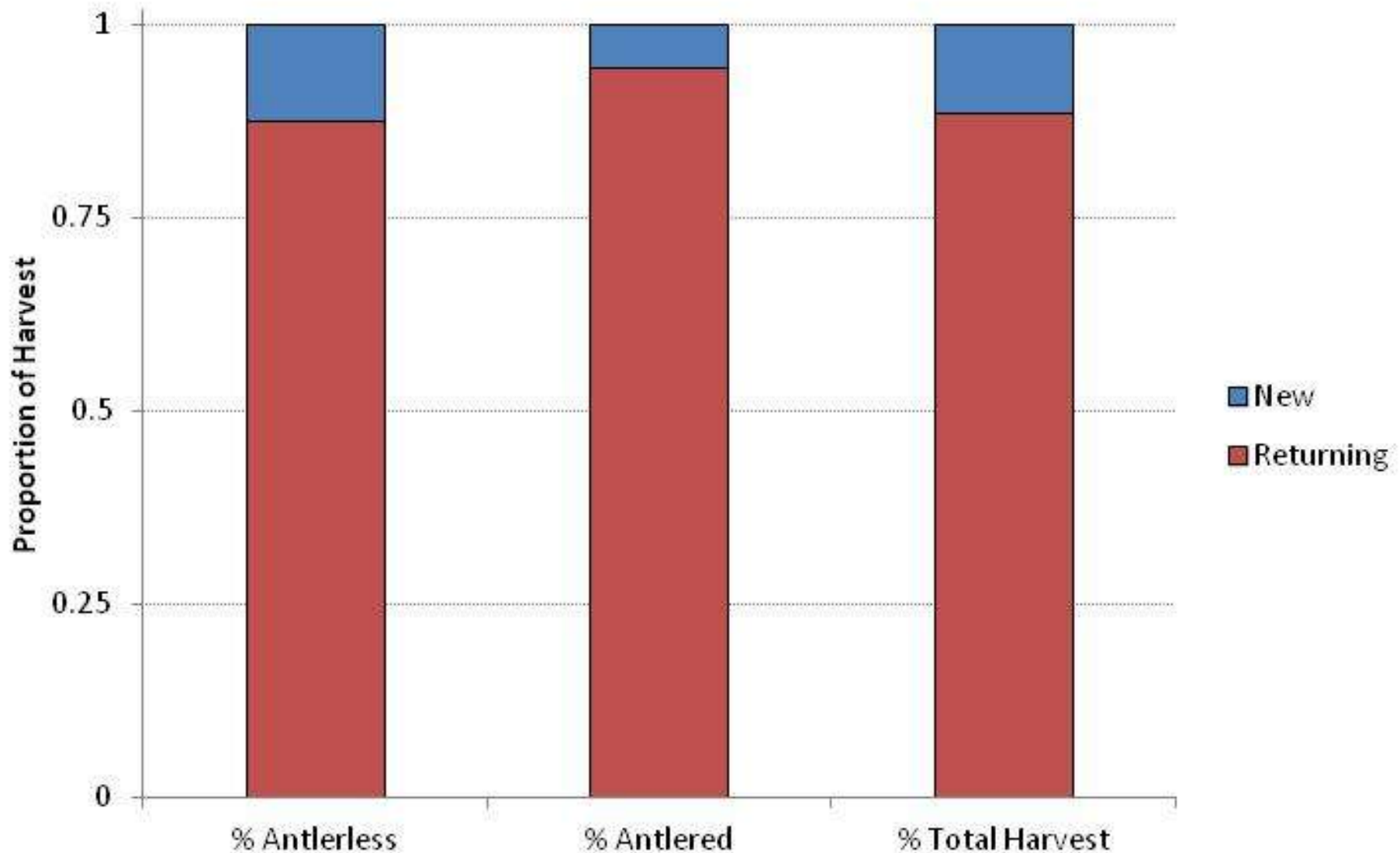
This graph is slightly different from the previous one. Here, the number of New and Returning hunters were separately normalized to 100%. Approximately 21% of all Returning hunters failed to harvest a deer in 2012, whereas 36% of all New hunters failed to harvest a deer.



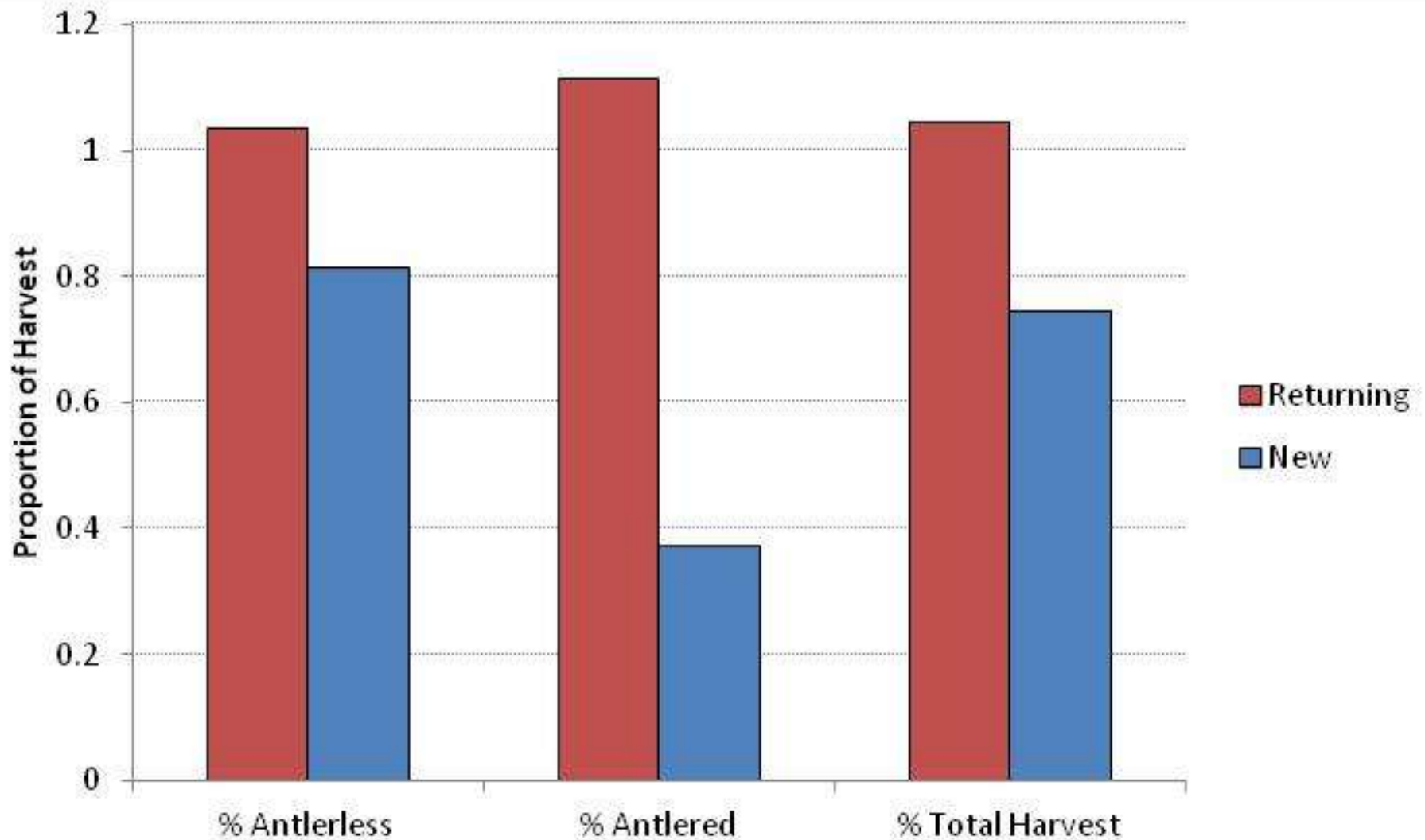
This figure further breaks down total harvest by both New and Returning Hunters in Duluth during the 2012 season.



Here, hunter numbers were again normalized by hunter type to 100. Thus, approximately 22% of Returning hunters didn't shoot a deer in 2012. However, almost 30% of Returning hunters did shoot one antlerless (10), and almost 35% of New hunters registered one antlerless (10).



Here is the proportion of deer harvest attributed to New and Returning hunters. Close to 95% of antlered harvest and 88% of antlerless harvest were registered by Returning Hunters. This is raw data, and does not account for the much larger participation by Returning Hunters. This is not meant to imply that New hunters aren't pulling their weight.



This data DOES account 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 again normalized to 1.0, by 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 much higher for Returning hunters (> 1.0) than for New hunters (0.81).
- This same trend was observed where Returning hunters harvested antlered individuals in a higher proportion than their participation rate (1.12).
- Thus, there appears to be a learning curve where New hunters require more time to “find their spots” relative to Returning hunters who already know in February where their stands will likely be in October.

Local vs. Non-Local Hunters

	# Participating in 2012	# Antlerless
Locals	317	439
Non-Local MN	29	32
Out-of-Staters	13	11



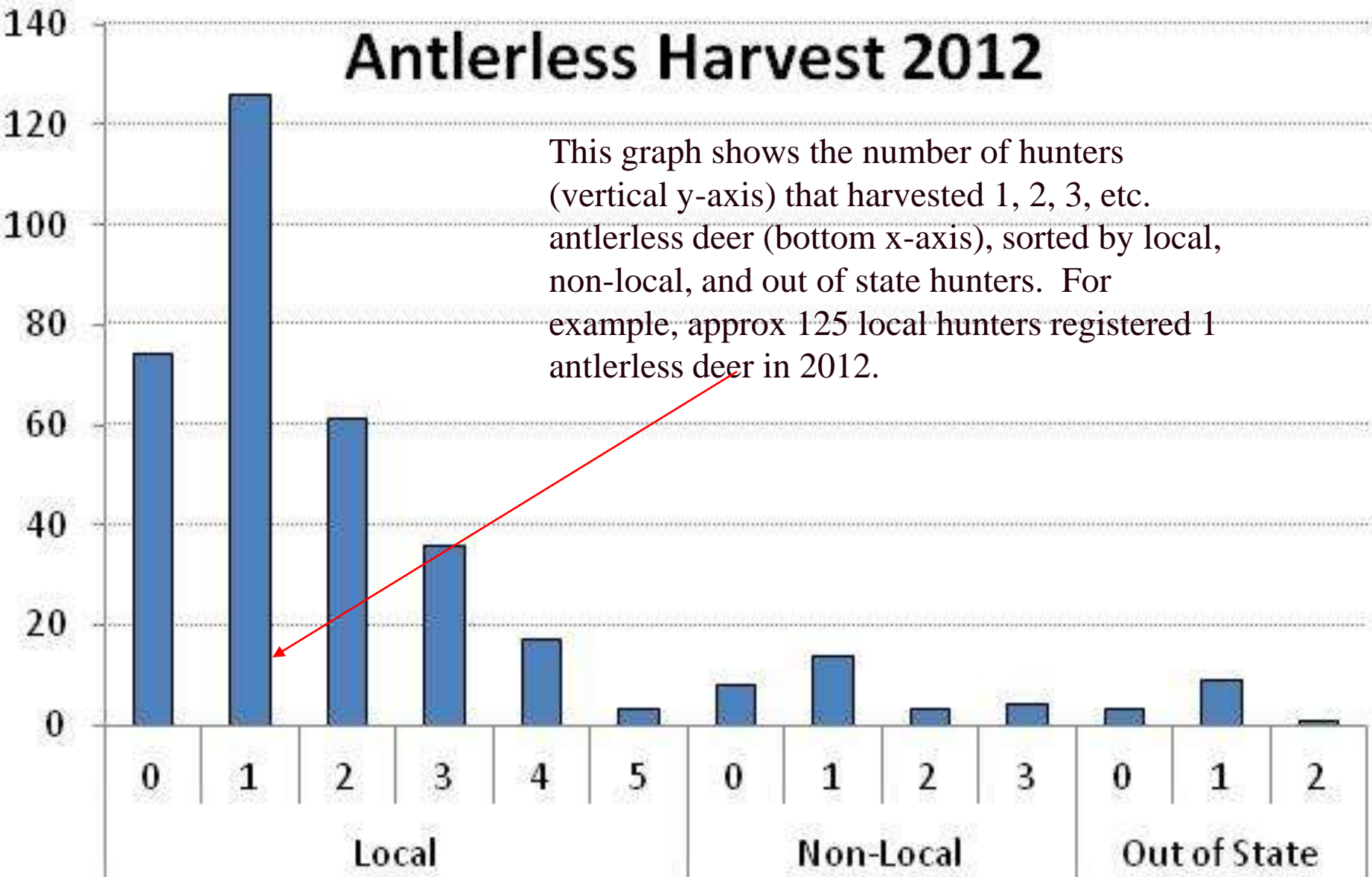
Local vs. Non-Local Hunters

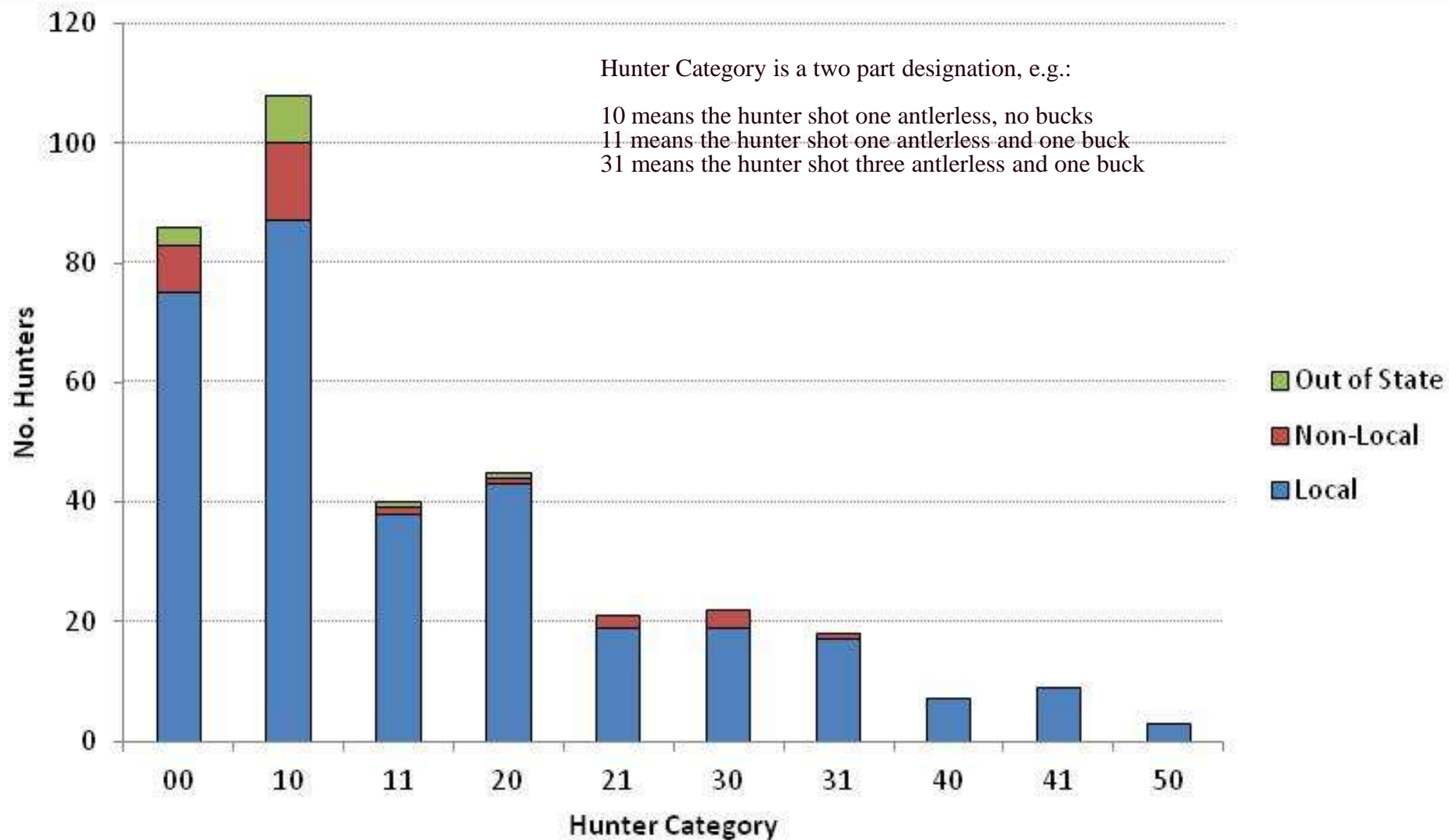
- Non-locals accounted for 8.1% of the hunters (N=29), and 6.3% of the harvest.
- Out-of-Staters accounted for 3.6% of the hunters (N=13) and 2.1% of the harvest
- Locals harvested 91.1% of does (N=439)
- Locals harvested 94.3% of bucks (N = 83)
- Non-locals harvested 6.6% of does (N=32)
- Non-locals harvested 4.5% of bucks (N=4)
- Out-of-Staters harvested 2.3% of does (N=11)
- Out-of-Staters harvested 1.1% of bucks (N=1)
- *Non-locals are hunters living further than Floodwood, e.g. Brainerd, Twin Cities*



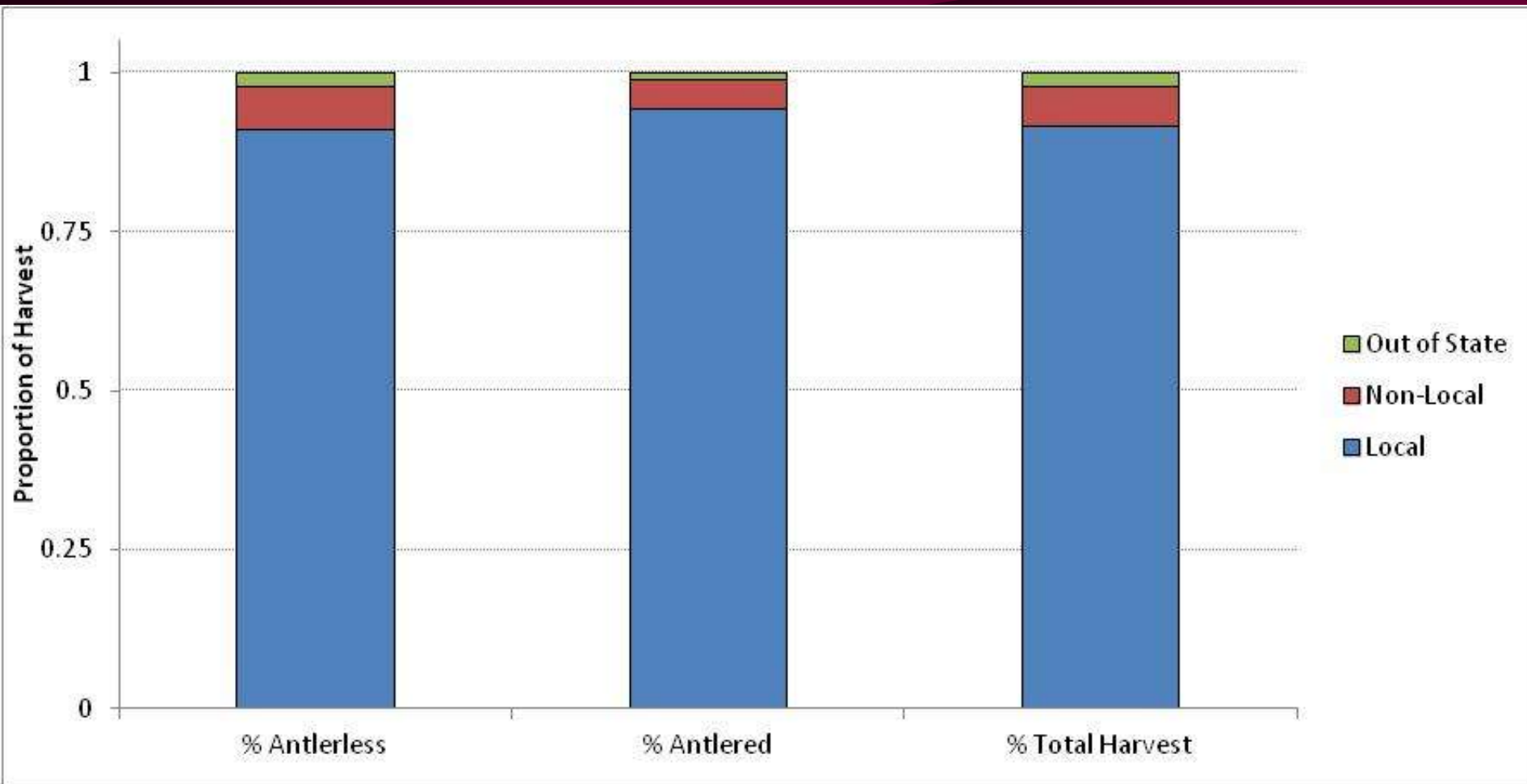
Antlerless Harvest 2012

This graph shows the number of hunters (vertical y-axis) that harvested 1, 2, 3, etc. antlerless deer (bottom x-axis), sorted by local, non-local, and out of state hunters. For example, approx 125 local hunters registered 1 antlerless deer in 2012.

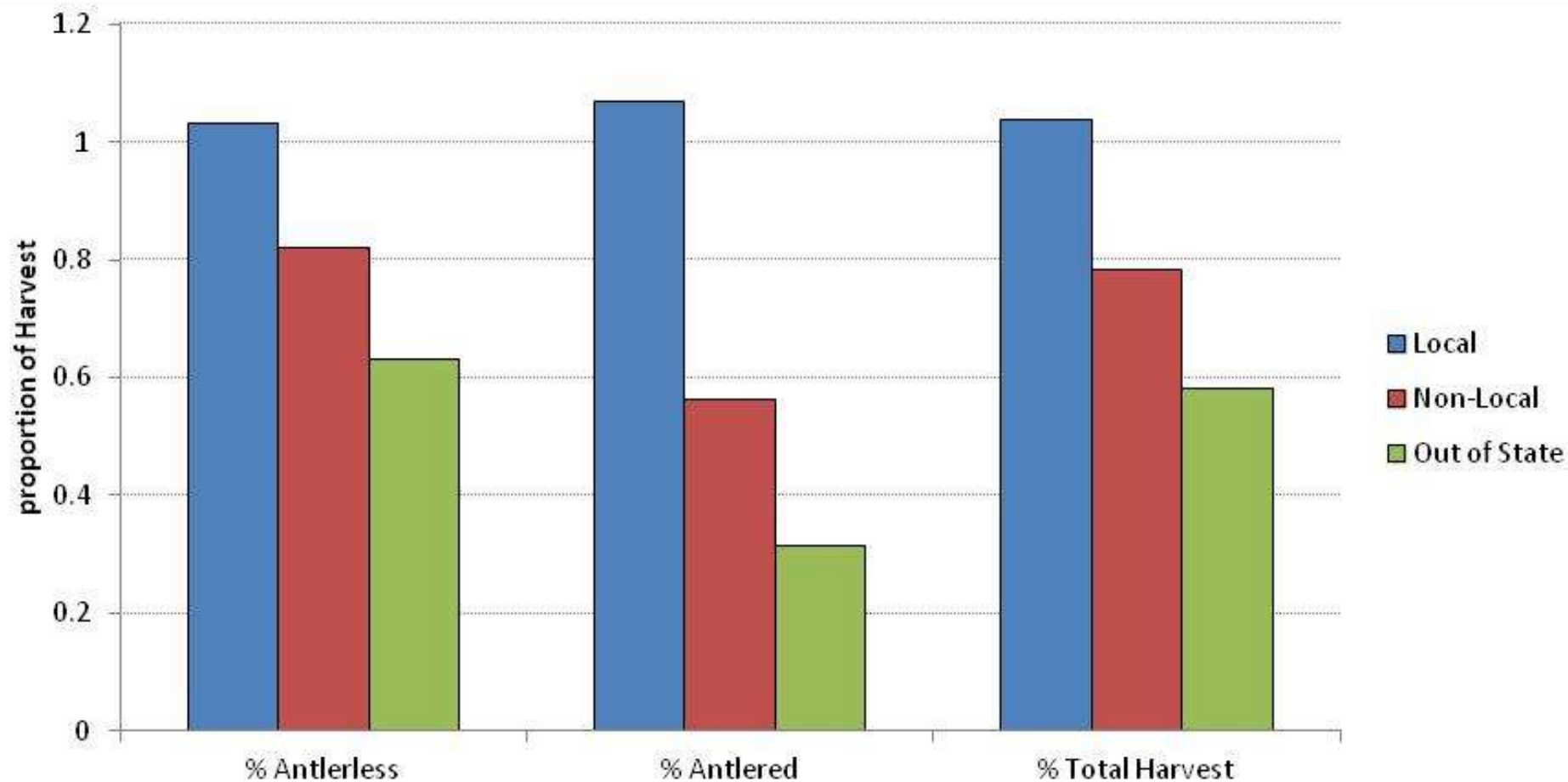




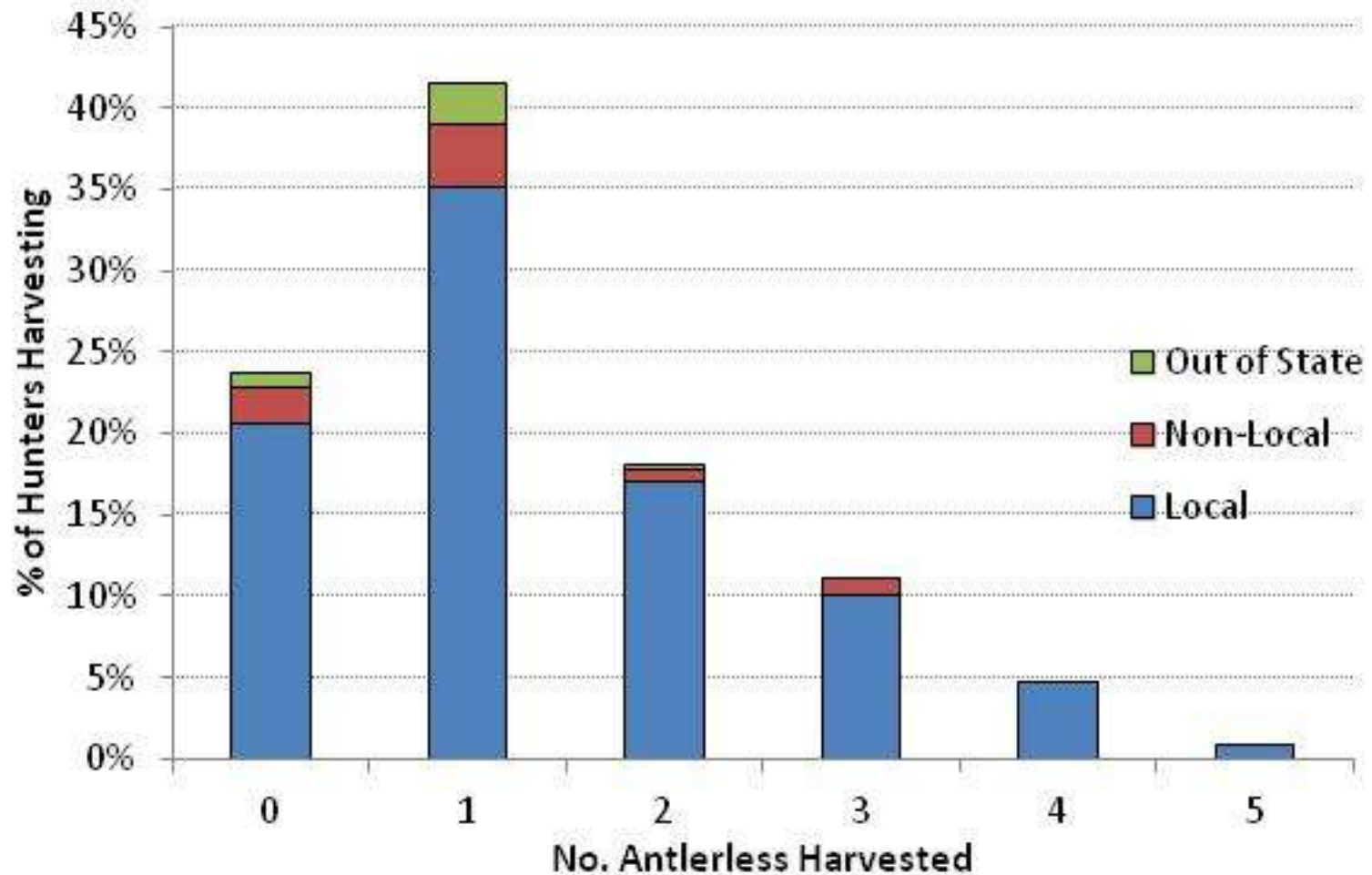
This figure further breaks down total harvest by Local, Non-Local, and Out-of-State Hunters in Duluth during the 2012 season.



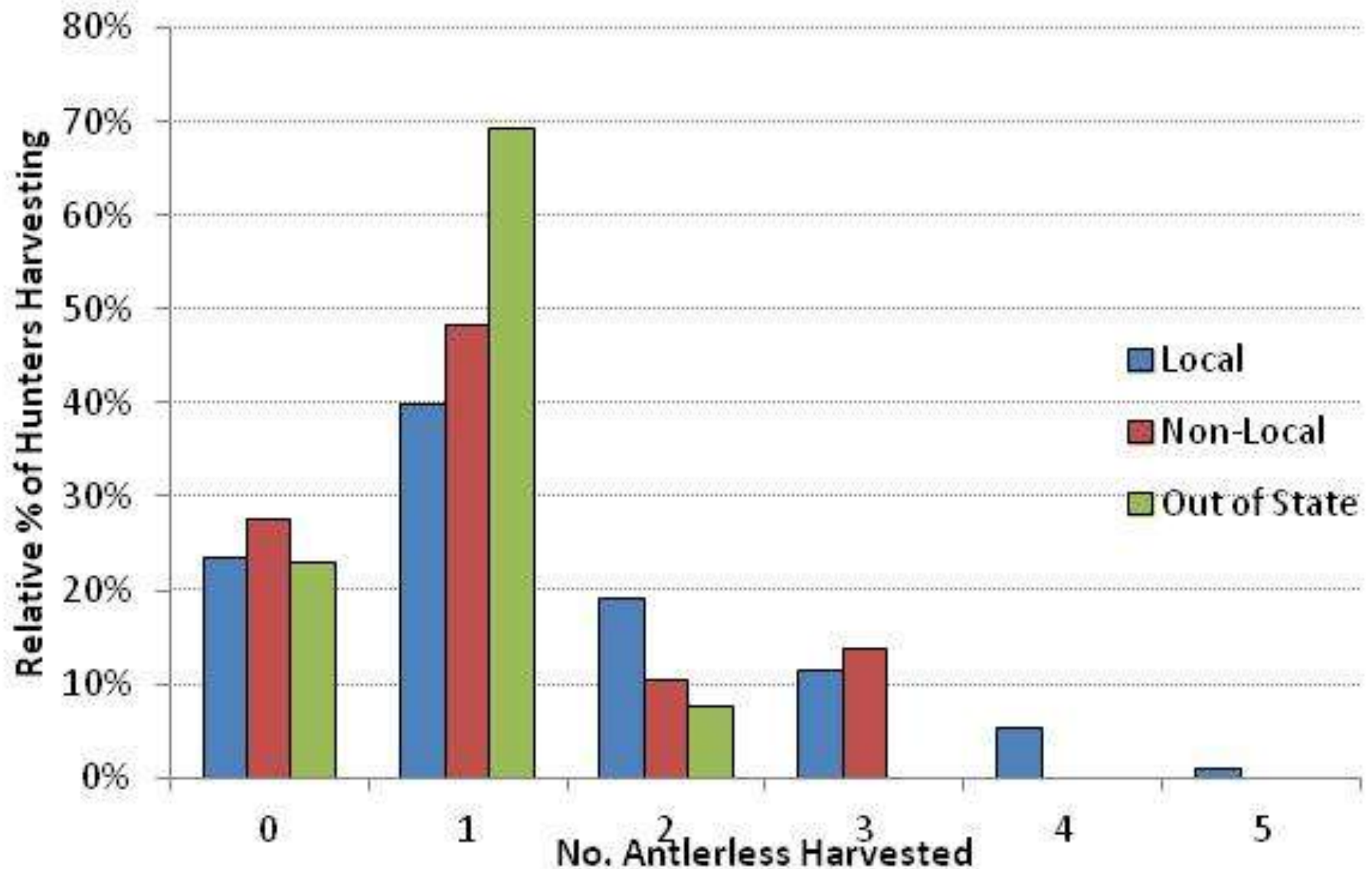
Here is the proportion of deer harvest attributed to each type of hunter. Close to 95% of antlered harvest and 88% of antlerless harvest was registered by Local Hunters. This is raw data, and does not account for the much larger participation by Local Hunters. This is not meant to imply that Non-Local and Out-of-State hunters aren't pulling their weight.



Similar to the New vs Returning slide, harvest by hunter type was normalized to 1.0 for each hunter type. This shows the relative contribution to harvest, and removes the bias of the larger number of Local Hunters. Thus, Local hunters harvested more per hunter for both antlerless and antlered individuals (> 1.0).



Percentage of hunters, by type, harvesting X number of antlerless. Thus, just over 20% of Local hunters did not harvest a deer in 2012, where as 5% of Local hunters harvested 4 antlerless.

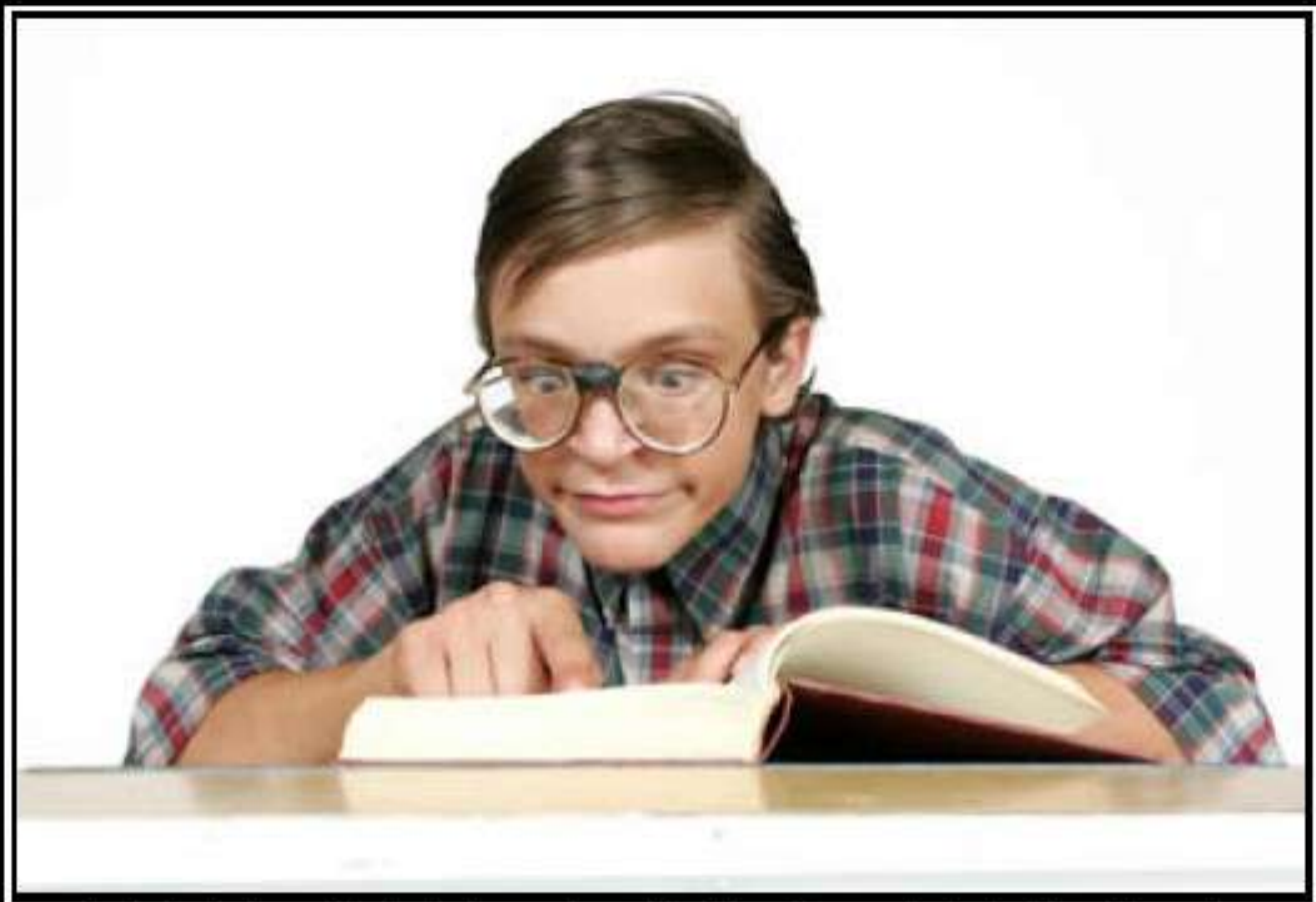


- This shows the relative percentages of each hunter type that harvested X number of antlerless. Thus, of all Local hunters, approximately 40% harvested 1 antlerless. Of all Out-of-State hunters, almost 70% of them harvested one antlerless.

Icky Stats



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



I HAVE NO LIFE

and I can PROVE it mathematically.

Locals vs. Non-Locals

- Locals harvested 1.38 0.13 antlerless deer
- Non-locals harvested 1.02 0.27 antlerless
 - $z = 2.417$, $P = 0.0156$, thus there was a significant difference between the two groups of hunters. Non-locals harvested slightly fewer antlerless deer per hunter than did local hunters.
 - For this analysis, non-locals and out-of-state hunters were combined to increase sample size of that group.
 - This may have a lot to do with the higher cost of tags for out-of-State hunters, and the time required to invest in stand time. Likely non-local hunters only have weekends to hunt, whereas locals have mid-week to devote to their hobby.

More differences between Locals and non-Locals

- Locals harvested 1.65 ± 0.15 total deer
- Non-locals harvested 1.14 ± 0.32 total deer
 - $z = 2.864$, $P = 0.0042$, thus there is a significant difference in the total harvest of deer in Duluth in 2012, with Local hunters harvesting significantly more deer per hunter than non-locals.
 - This suggests that locals may have a “home field” advantage, and probably have more time to devote to scouting, moving areas, and targeting deer than those that don’t live locally.



New vs. Returning Hunters

- Returning hunters harvested 1.38 0.13
antlerless deer (same as locals coincidentally)
- New Hunters harvested 1.09 0.33
antlerless
 - $z = 1.6982$, $P = 0.0895$, thus there was no significant difference between the two groups of hunters. In other words, New Hunters harvested antlerless at the same per hunter rate as Returning Hunters, though the absolute harvest number was much higher for Returning hunters due to their much higher numbers.

New vs. Returning Hunters

- Returning hunters harvested 1.67 ± 0.15 total deer
- New Hunters harvested 1.18 ± 0.35 total deer
 - $z = -2.518$, $P = 0.01$, thus there is a significant difference in the total harvest of deer in Duluth in 2012, with Returning hunters harvesting significantly more bucks per hunter than New hunters.
 - This might further suggest the “home field advantage” hypothesis for Returning Hunters relative to New ones.

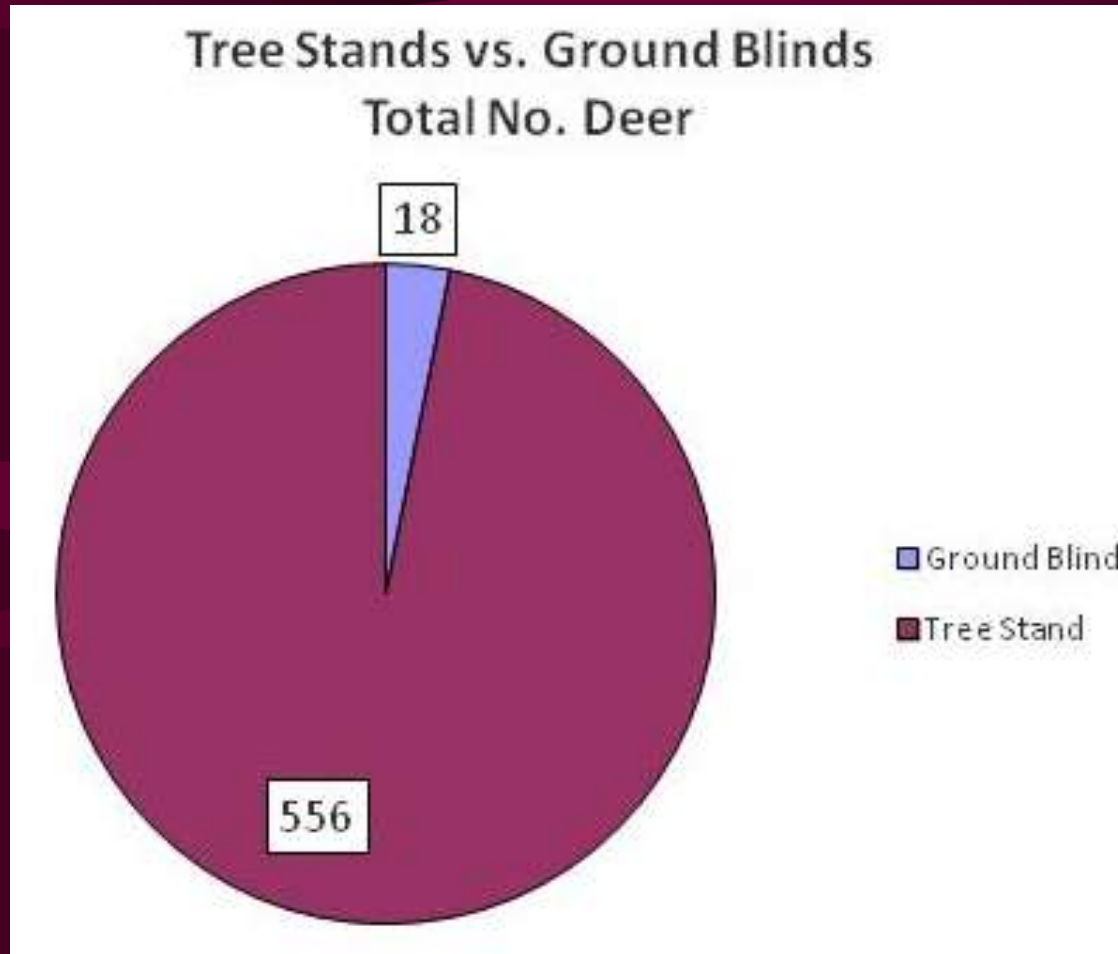
New vs. Returning Hunters

- Again, these differences are no doubt due to the learning curve for New hunters. Returning hunters have the advantage of 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, demonstrated by their equal harvest rate of antlerless deer compared to the Returning Hunters.

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!
- I'm sick that way . . . ☺
- Now back to more interesting summaries . . .

Harvest from Tree Stands vs. Ground Blinds



Many asked for ground blinds, few used them. Fewer used ground blinds in 2012 than in 2011 (N = 25).

Zero incidents reported. Thank you for staying safe!!

Venison Donation

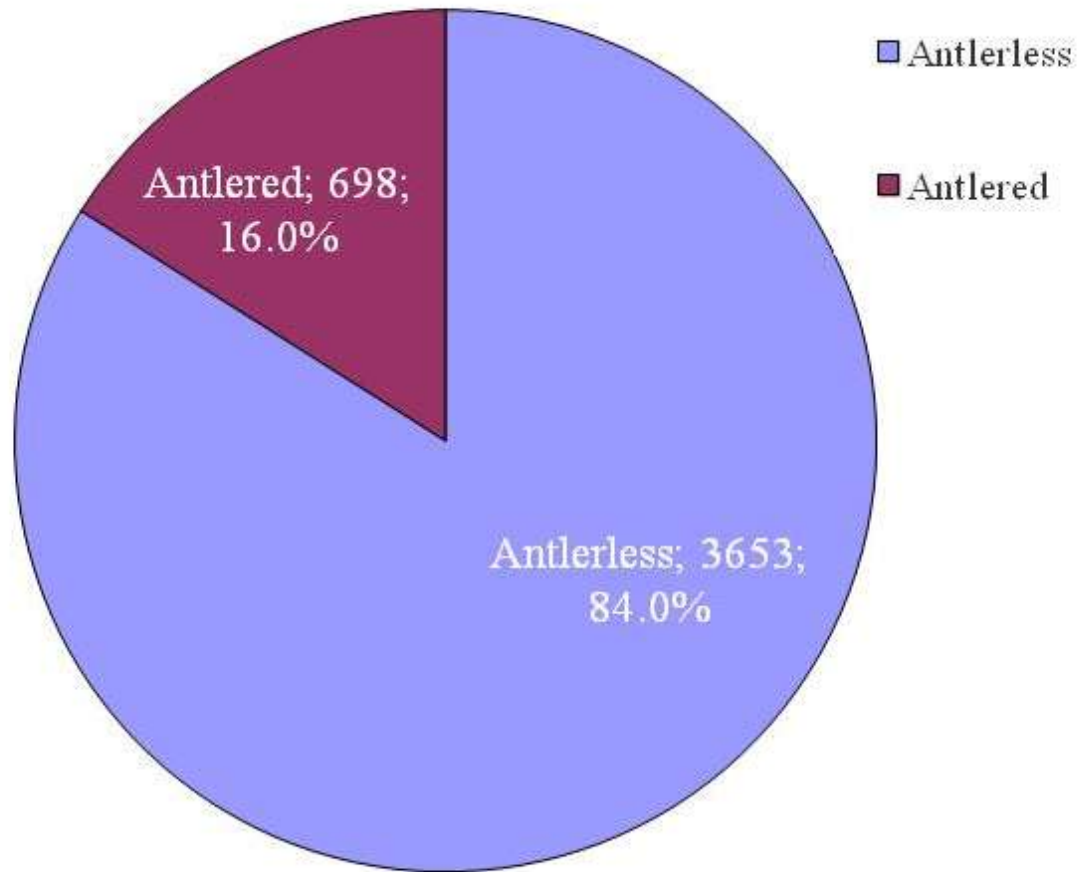
- 308 harvested deer were reported as “Donated”
 - Includes Food Shelf, friends, family, etc.
 - 304 in 2009
 - 373 in 2010
 - 340 in 2011
- All or part of 53.8% of harvested deer were donated.



Lottery Results

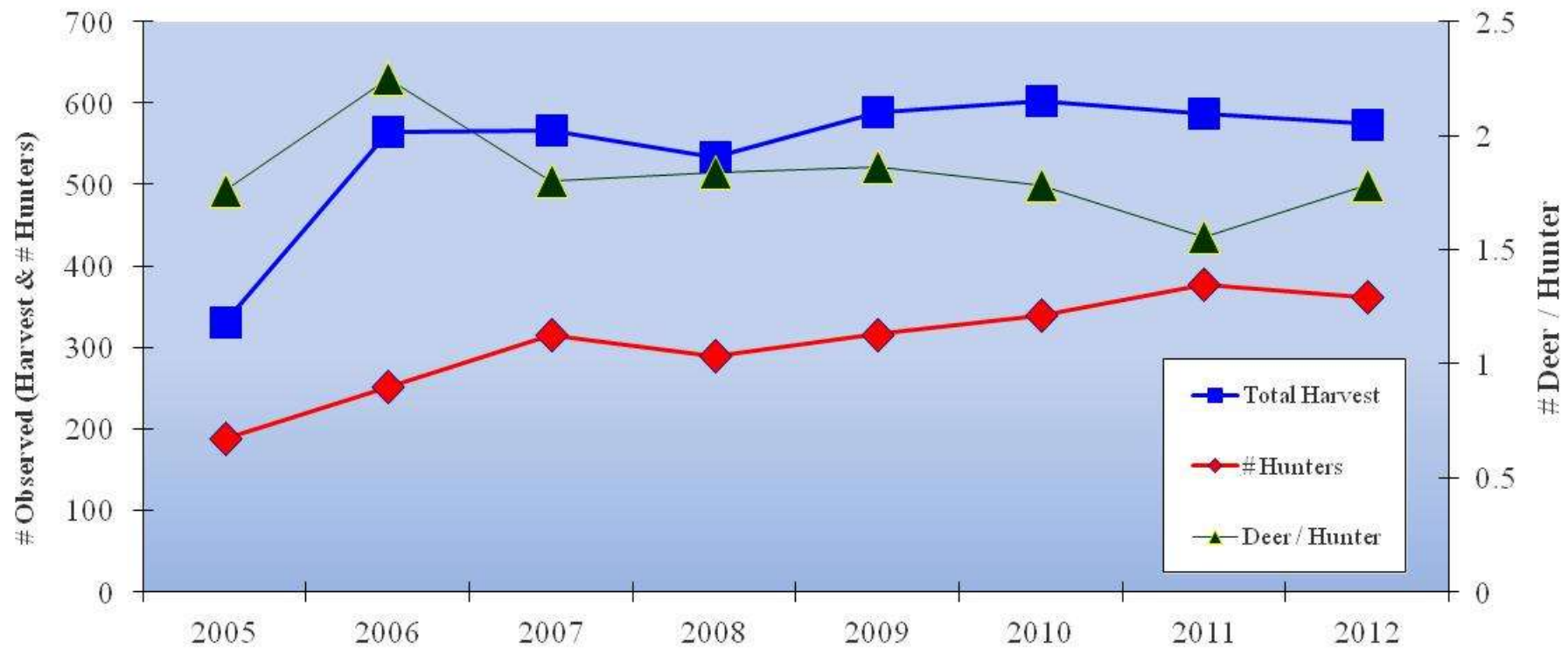
- **81.1%** of Returning Hunters received their 1st Choice DHA!
 - 147 returning hunters, or 49% got their first choice, and **DID NOT** have to attend the Lottery!
 - 97 Returning Hunters received their First Choice at the Lottery
 - 244 of the Hunters received their First Choice DHA
- 3.3% received 2nd Choice DHA (N=12 Hunters)
- 85.0% of Returning Hunters got to hunt where they wanted to!
- 8 New Hunters got their first choice, and 8 their second choice, in the Lottery. 29.6% 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 third year in the last four, I didn't get **ANY** of my DHA choices!

Harvest Summary 2005 - 2012



8-Year Total Harvest

4351 Deer in eight Years!!!!



- Total Harvest per season has been essentially flat since 2006, maybe down a small amount over last two seasons.
- # deer / hunter appears to have risen a bit in 2012, though not significantly ($P = 0.7622$).
- # Hunters participating actually fell for the first time since the Hunt began in 2005. With approximately the same number of deer harvested with the lower participation rate, this accounts for the slight rise in the deer / hunter metric.

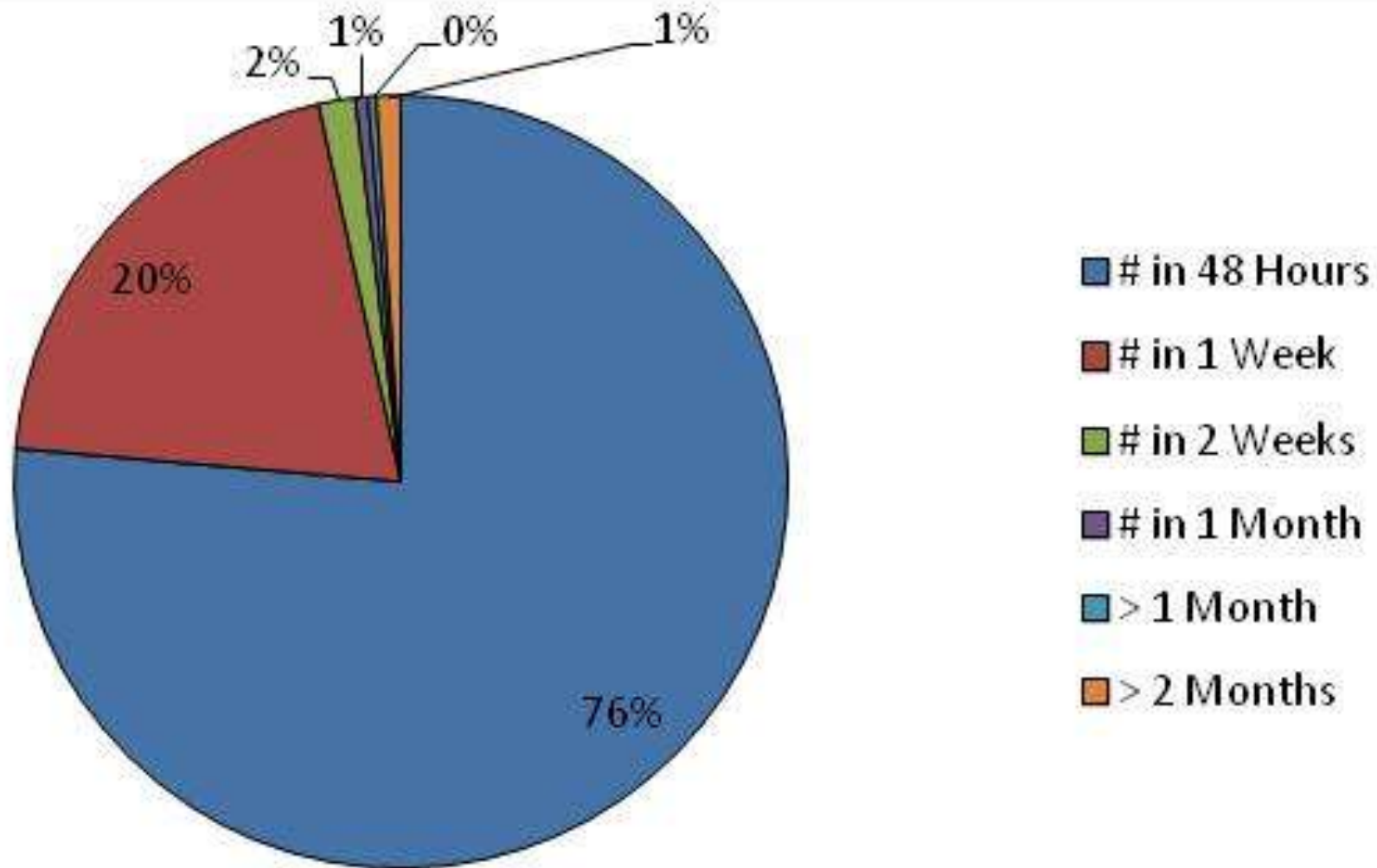
Compared to State Average

- Harvest / Hunter increased slightly to 1.59 / Hunter
 - 1.55 Deer / Hunter in 2011
 - 1.78 Deer / Hunter in 2010
 - 1.86 Deer / Hunter in 2009
- Total Duluth harvest down **2.3%** from 2011 (574 vs. 587)
- Total Permit 182 Harvest increased 17.8% in 2012
 - 2182 in 2012 vs 1811 in 2011
 - 26.3% of Permit 182 harvest was in Duluth, down from 32.5% in 2011
- Still not a bad showing by Duluth Bowhunters, but not as strong as in years' past. Again, harder hunting in Duluth than before?

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!





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.

- 76.4% deer registered within 48 hours.
 - Up from 60.2% in 2008, 70.8% in 2009, and 76.2% in 2010, but down slightly from 77.8% in 2011.
- I can live with the 20.2% that did so within 1 week
- I'm pleased that we only had 6.0% registered late.
 - Only 8 deer registered > 30 days late
 - 0 deer registered > 90 days late, which has NEVER happened in the past!
 - This has improved greatly, and for that the ABA is very thankful.
 - Only 4 deer not registered until HCs called to remind!
 - Down from 35 in 2008, 16 in 2009, and 19 in 2010, and 5 in 2011
 - 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.

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 265 responses from the 359 participating hunters.



SCIENCE

Because figuring things out is always better than making junk up

	Survey Response Rate		
	# Survey Responses	265	
	# Hunters Placed	359	
	Response Rate	73.8%	
	Responsible for % harvest	79.44%	
	Final Total Harvest	574	
	<p><i>Therefore, if hunter harvested deer, they were much more likely to fill in the Year End Survey. But that said, there were many individuals that failed to harvest a deer that DID participate. Thank you for your time.</i></p>		

Response Rate by Hunter Type			
# Returning Hunters Surveyed			221
# New Hunters Surveyed			44
# Returning Hunters Placed			306
# New Hunters Placed			56
Response Rate of Returning Hunters			72.2%
Response Rate of New Hunters			78.6%

- New hunters were more apt to give a rip and to go online and fill out the Year End Survey. Perhaps Returning hunters are getting calloused and just don't care anymore?

Who Resonded to Survey?						
					#	%
Survey Respondents Harvesting a deer					216	78.5%
Survey Respondents that did not Harvest a Deer					49	17.8%
Total Hunters that Harvested a Deer					274	72.7%
Total that Did Not Harvest a Deer					88	23.3%

- No real difference in the response rate between those that were successful and those that were not. Maybe if you harvested a deer, you might have been slightly more apt to go online and complete the survey.

Wounding Rates

Total # Deer Reported:	456
Total # Wounded:	60
Total # shots:	516
Total # that did not die:	29
General Wounding Rate:	11.6%
Adjusted Wounding Rate:	6.0%

Overall wounding was just over 11%, about the average for MN archery. This rate has been nearly constant for all but the first year of the Duluth Bowhunt. Removing the deer that folks reported being 100% sure survived, our wounding drops to 6.0%, again right in line with past estimates for Duluth bowhunters.

After being given a DHA, did you Hunt in Duluth in 2012?

Yes I did!	257
No, I did not.	8
Total	265
% that did hunt	97.0%

Approximately 97% of hunters placed at Lottery did actually hunt in 2012. This is identical to the estimate from the 2011 Hunt. Thus, most folks that go thru all of the ABA hoops and Rules, actually do end up in the woods.

**If you Bowhunted, did you bowhunt
anywhere in MN other than Duluth in
2012?**

Yes I did.	171
No, I only hunted in Duluth.	94
Total	265
% Seeking other Hunting Spots	64.5%

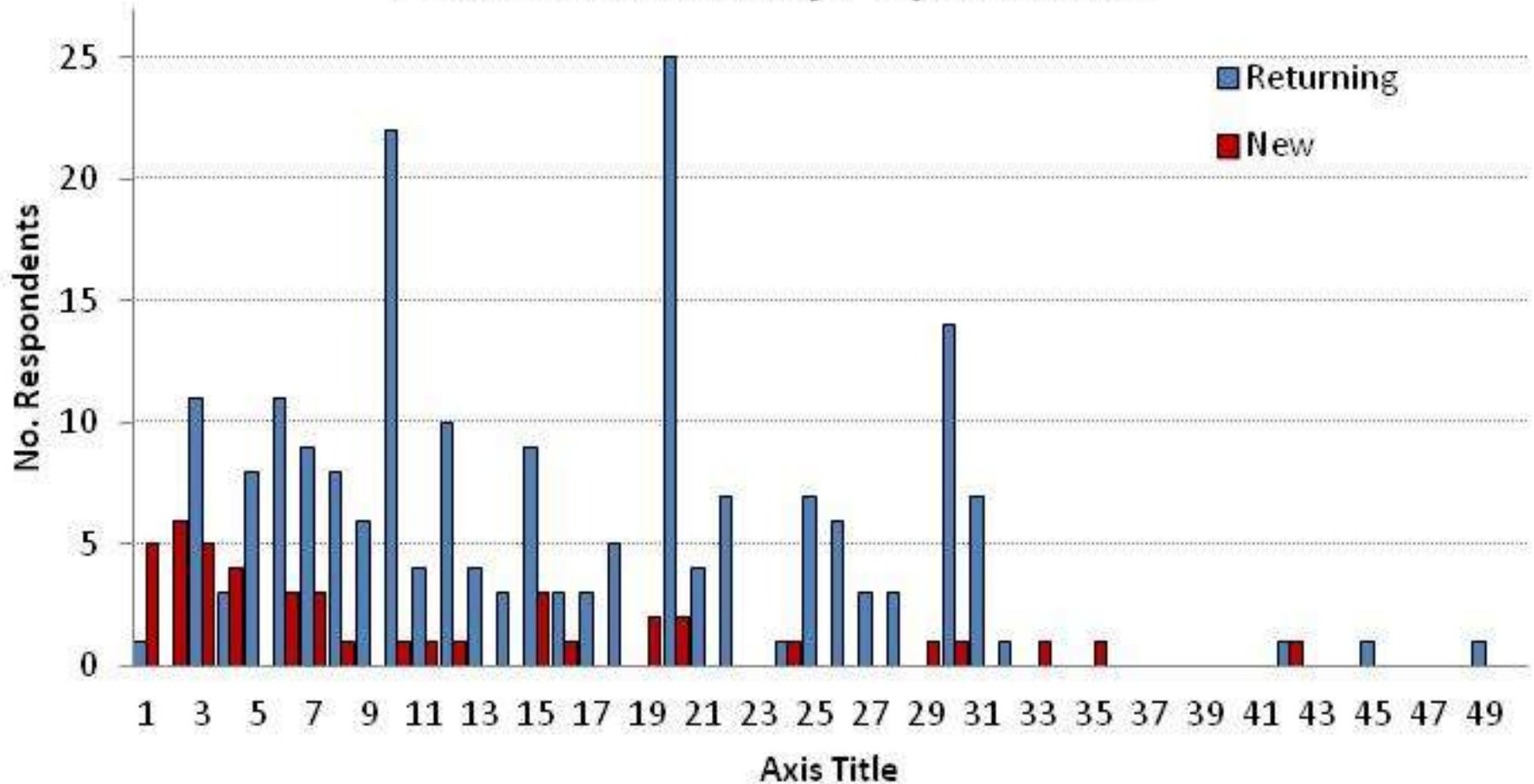
- Note that this includes several individuals that reported that they just never got out into the woods to participate in 2012. This estimate is also down by 10% from the 2011 estimate. Thus, more folks in 2012 invested all of their hunting time in the Duluth woods, rather than elsewhere.

Do you plan on participating again in the Duluth Hunt in 2013?

Yes	261
No	4
Total	265
% planning on hunting in 2013	98.49%

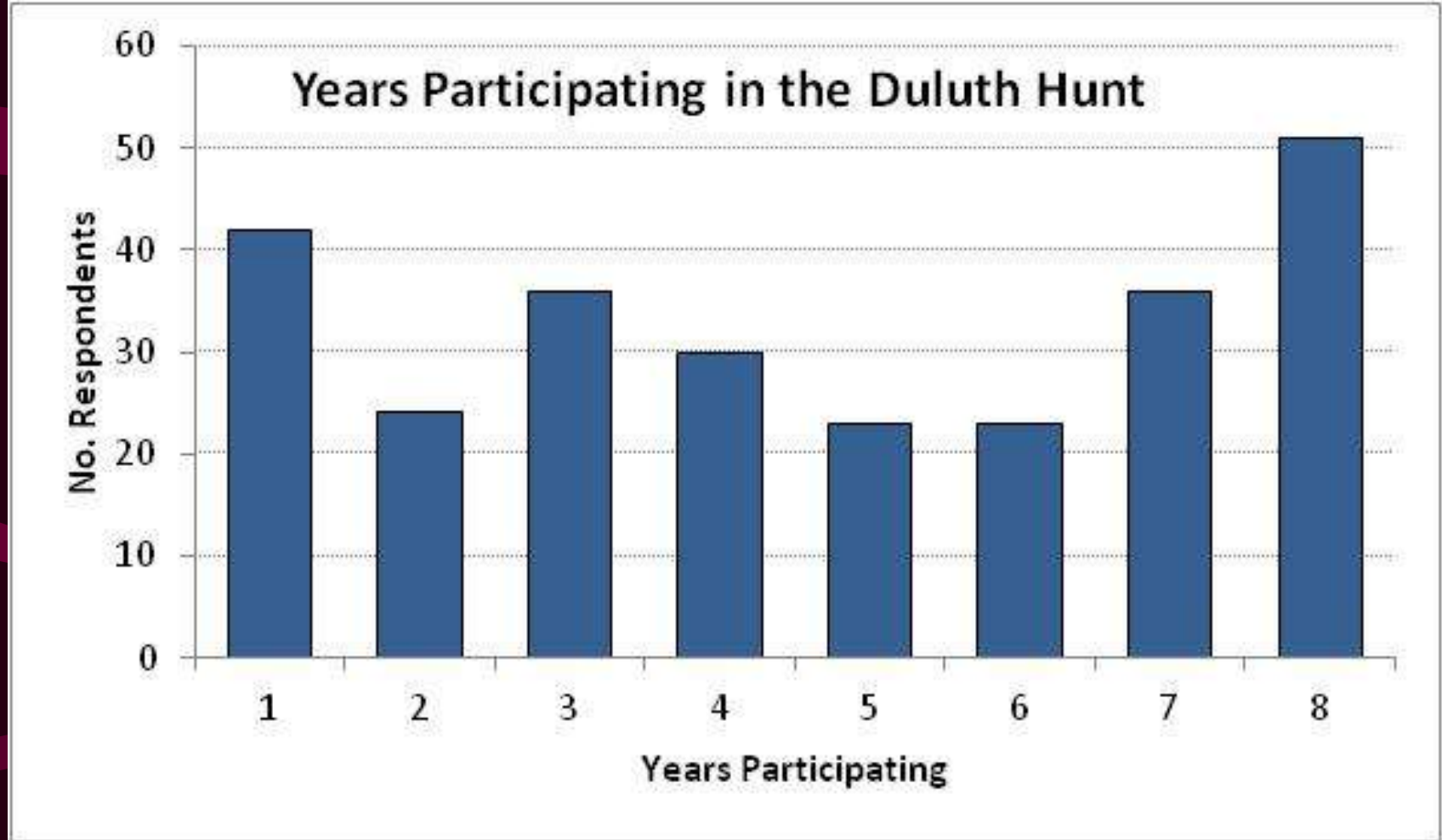
- This means that the ABA will not need to hold hands and encourage you to get all of your materials in by the 30 June 2013 deadline, as it looks like we'll have another full roster of hunters. Incidentally, this estimate of returning hunters next year is virtually identical to last year's estimate.

Years of Archery Experience

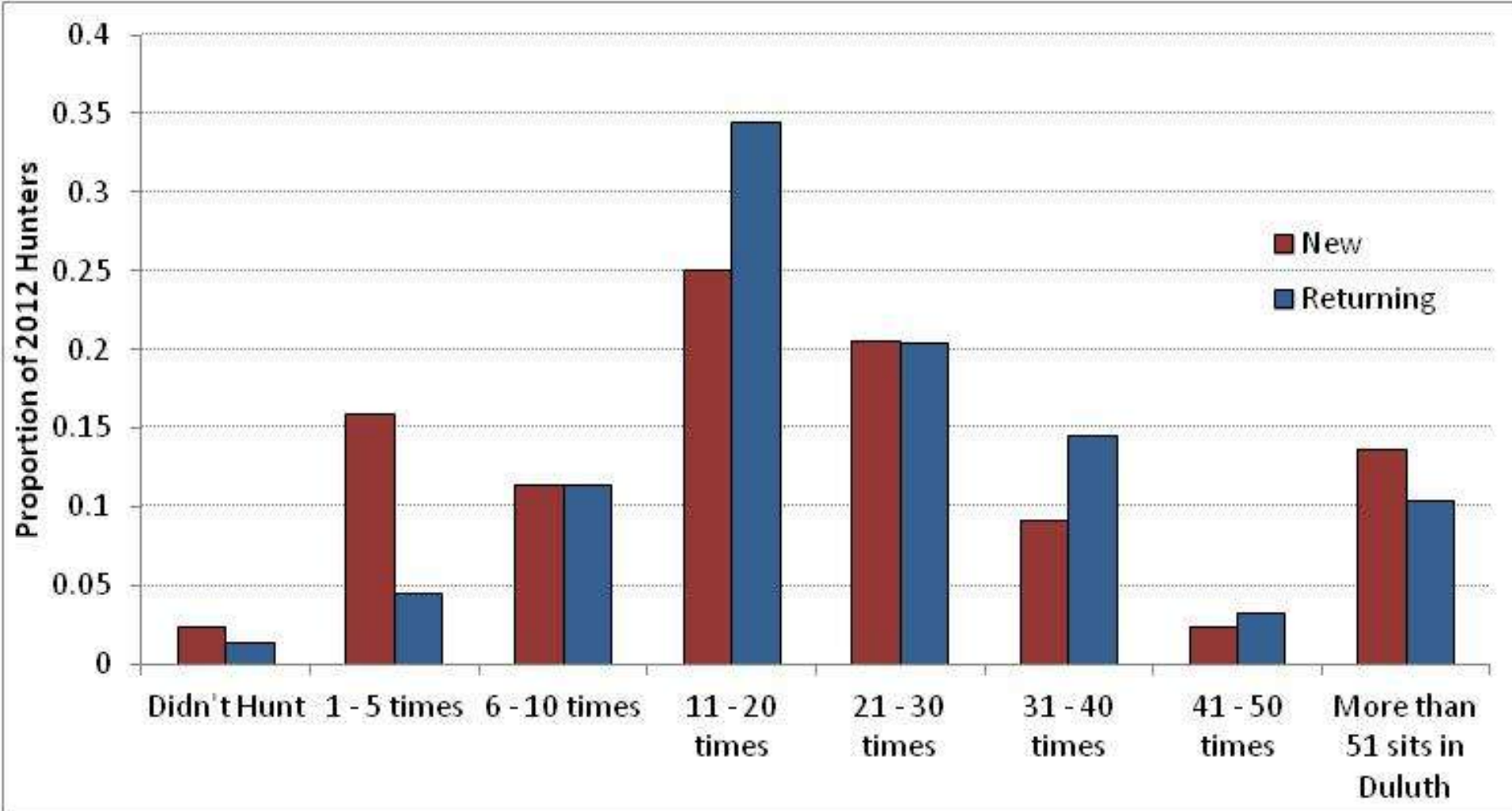


From this graph, the data suggests that overall experience in bowhunting is greater for returning hunters. Obviously there are exceptions, but as a group, new hunters in Duluth are relatively new to the sport. Welcome!

- Archery experience for our New Hunters was 10.4 ± 3.2 years of participating in this sport.
- For Returning hunters, average years of experience was 18.0 ± 1.4 .
- There were significant differences observed in these two means (averages) ($z = 4.26$, $P < 0.0001$), suggesting that more new hunters 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.

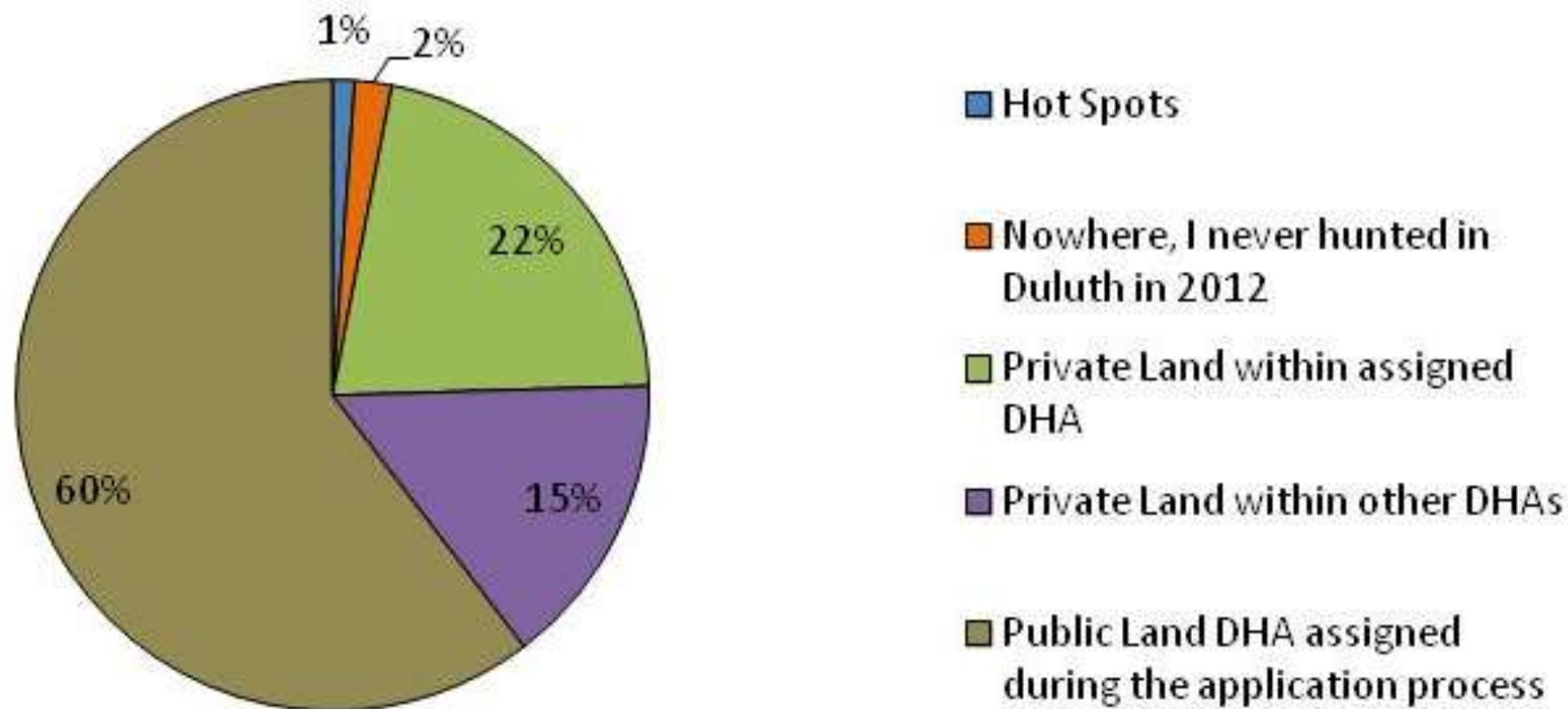


Average participation experience for Duluth hunters in 2012 was 4.6 ± 0.3 years. I'm encouraged that more than 50 of our survey participants have been Duluth hunters all 8 years of the hunt. So apathy in filling these surveys out and complying with all of the extra hunt rules of this urban management hunt hasn't infected everyone Yet!



To gauge how avid our hunters are, respondents were asked to estimate the number of times they headed out into the woods to hunt. We have no data to compare this to (I know, can you believe it!! No stats here!). But anecdotally, it sure seems as though Duluth hunters spend a lot of time in the woods. Aren't we spoiled at this wonderful opportunity?

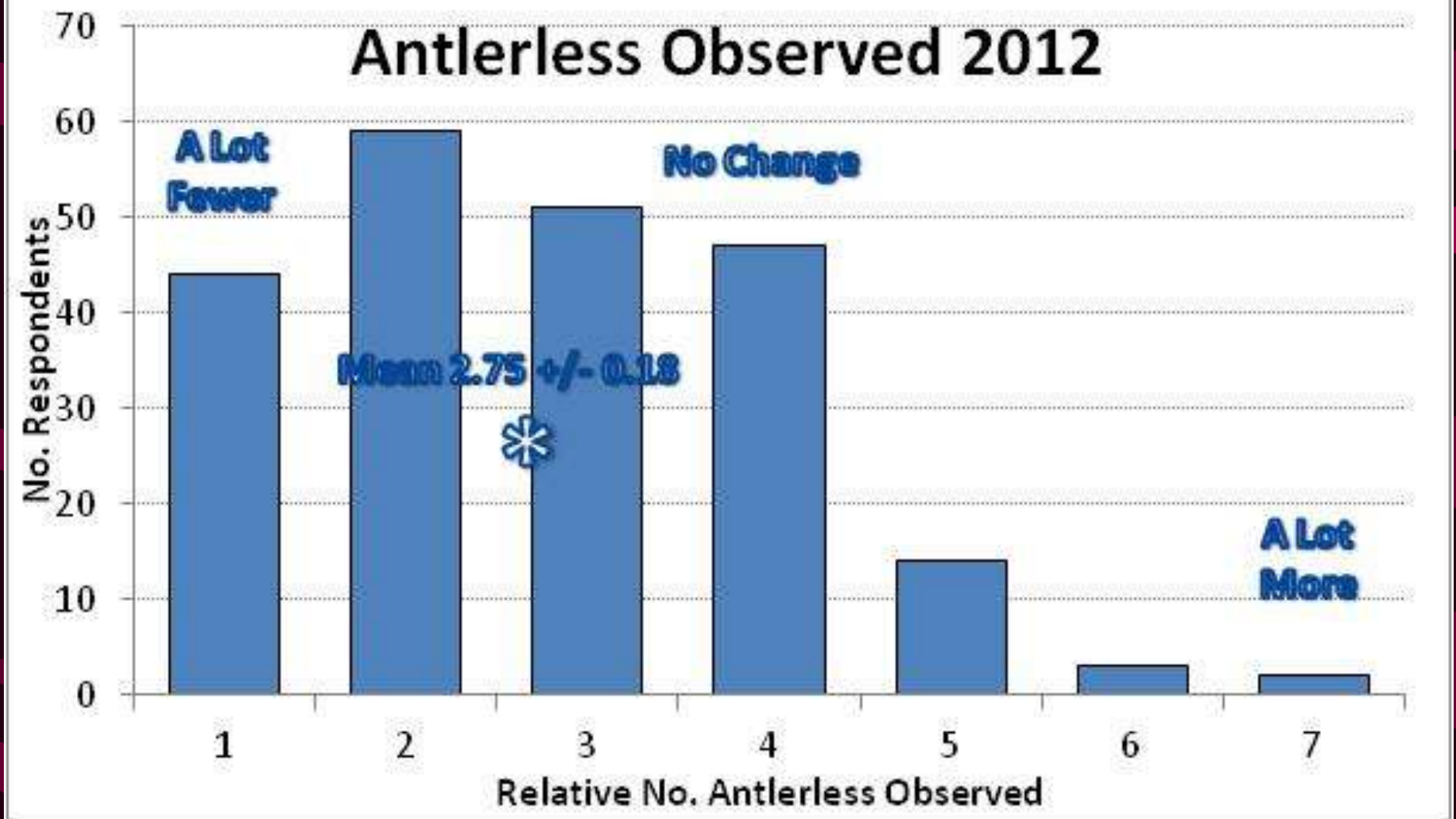
Where did Hunters Spend the Majority of their Stand Time?



It appears as though DHA selection in the Lottery provides the majority of the hunting opportunities within Duluth. So please do show up in 2013, 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?

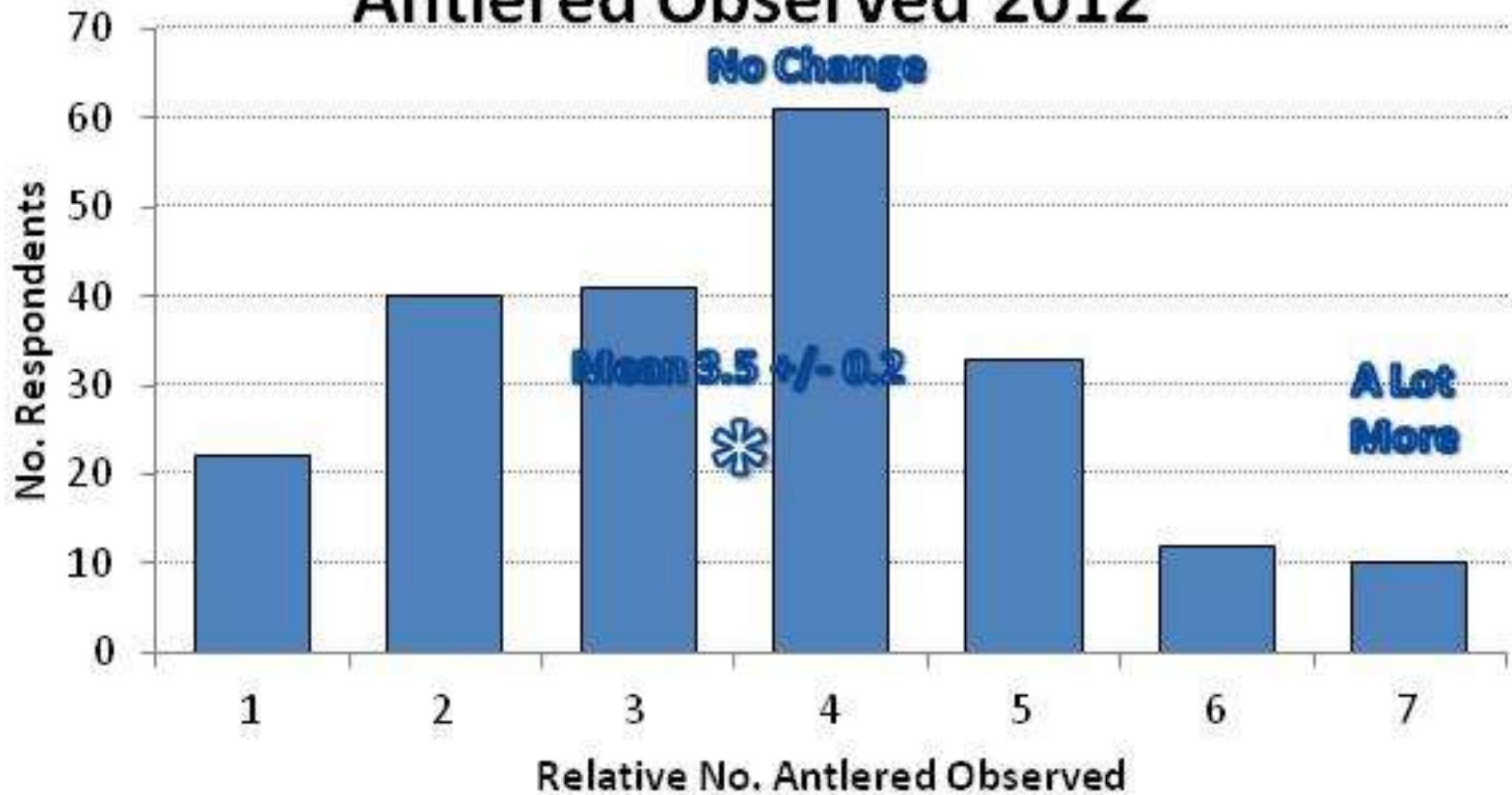
Relative Deer Numbers

- 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.

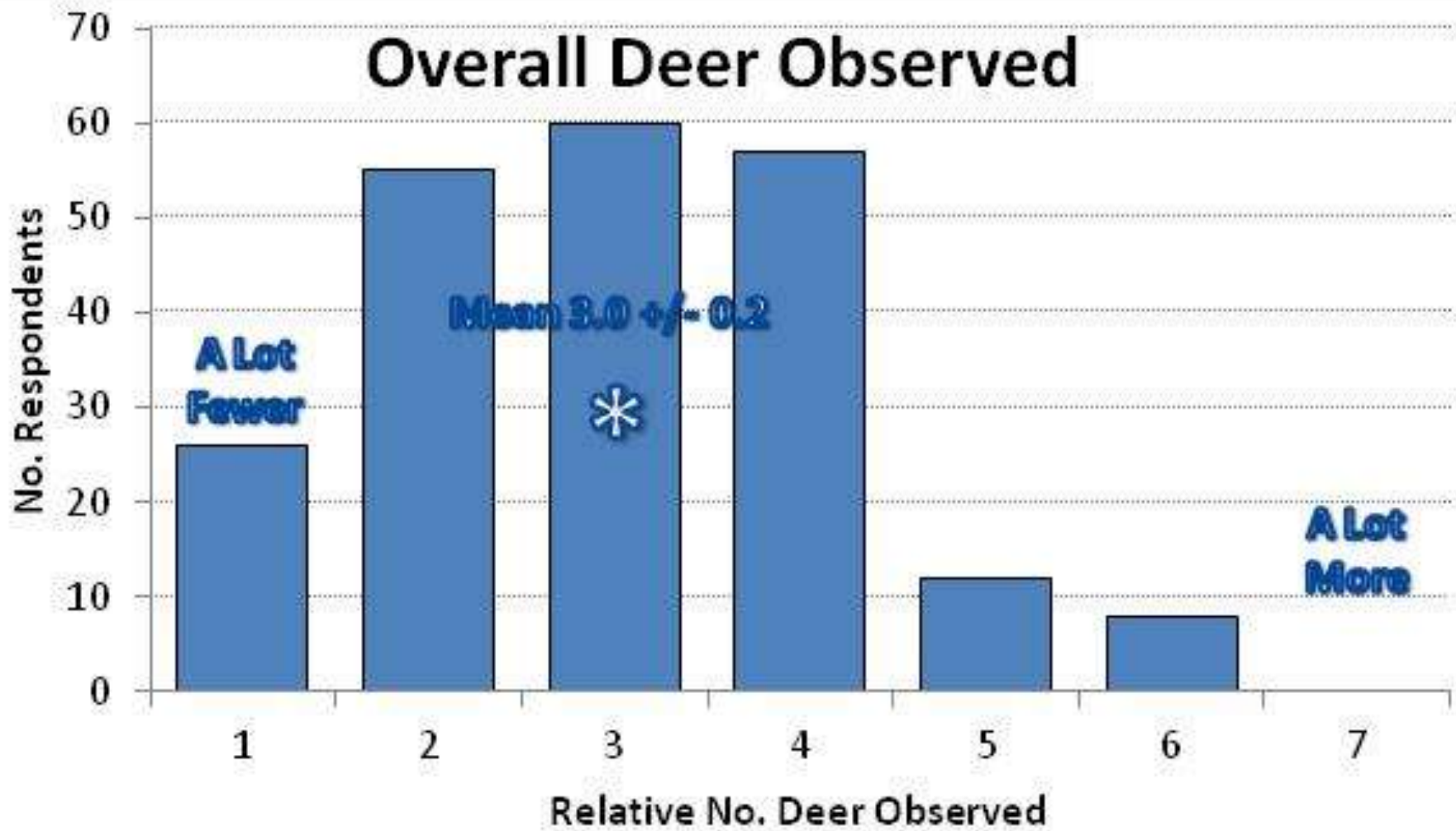


Returning hunters reported that they saw 2.75 +/- 0.18, indicating that returning hunters observed fewer antlerless deer than in years past. This number is a bit higher than reported in 2011 (2.51), but not statistically different ($P = 0.072$).

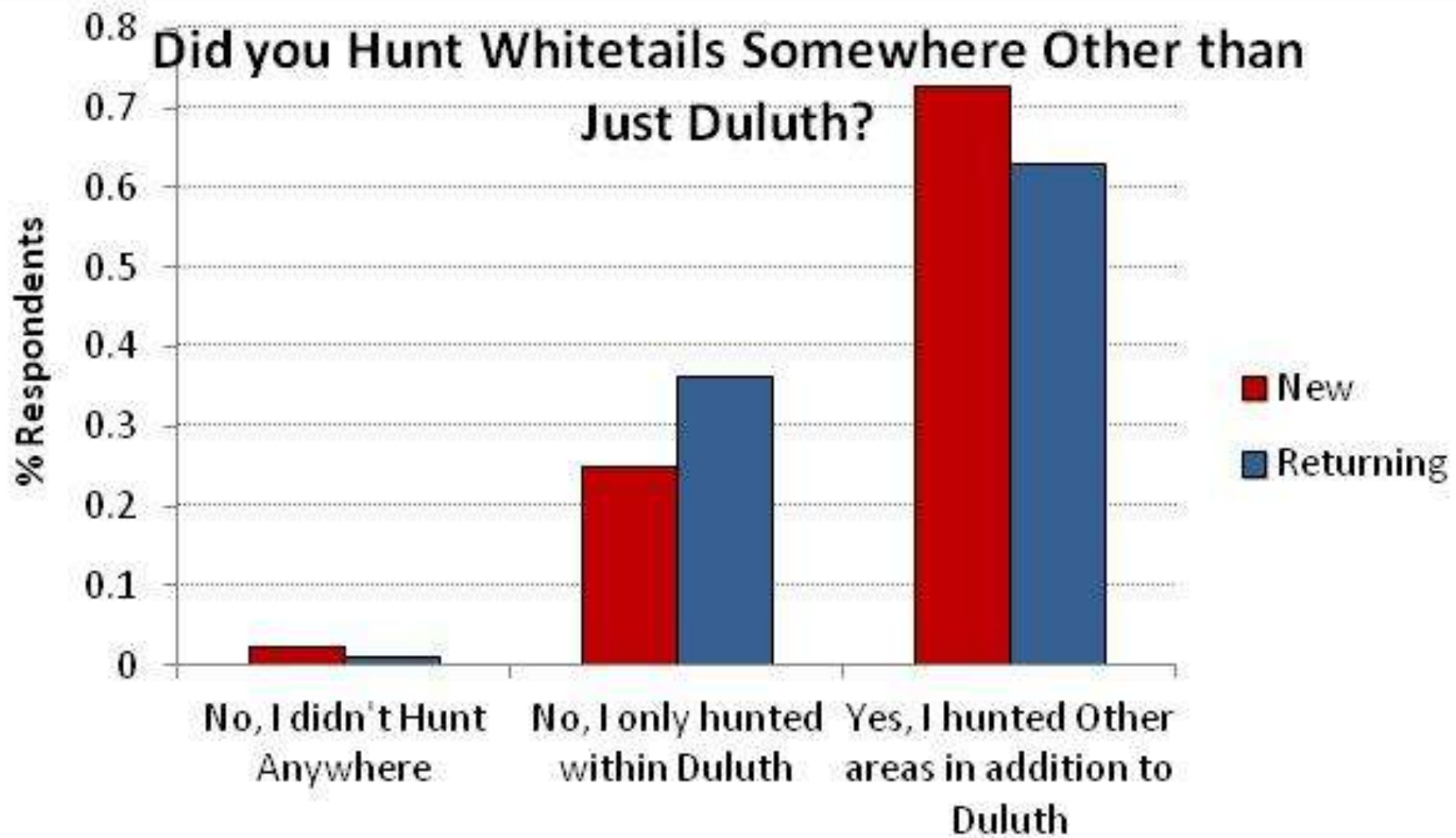
Antlered Observed 2012



Returning hunters reported antlered observations at 3.5 ± 0.2 , indicating that returning hunters saw about the same number of antlered individuals as in years past. There was no significant differences in reported bucks between 2011 and 2012 ($P = 0.057$).

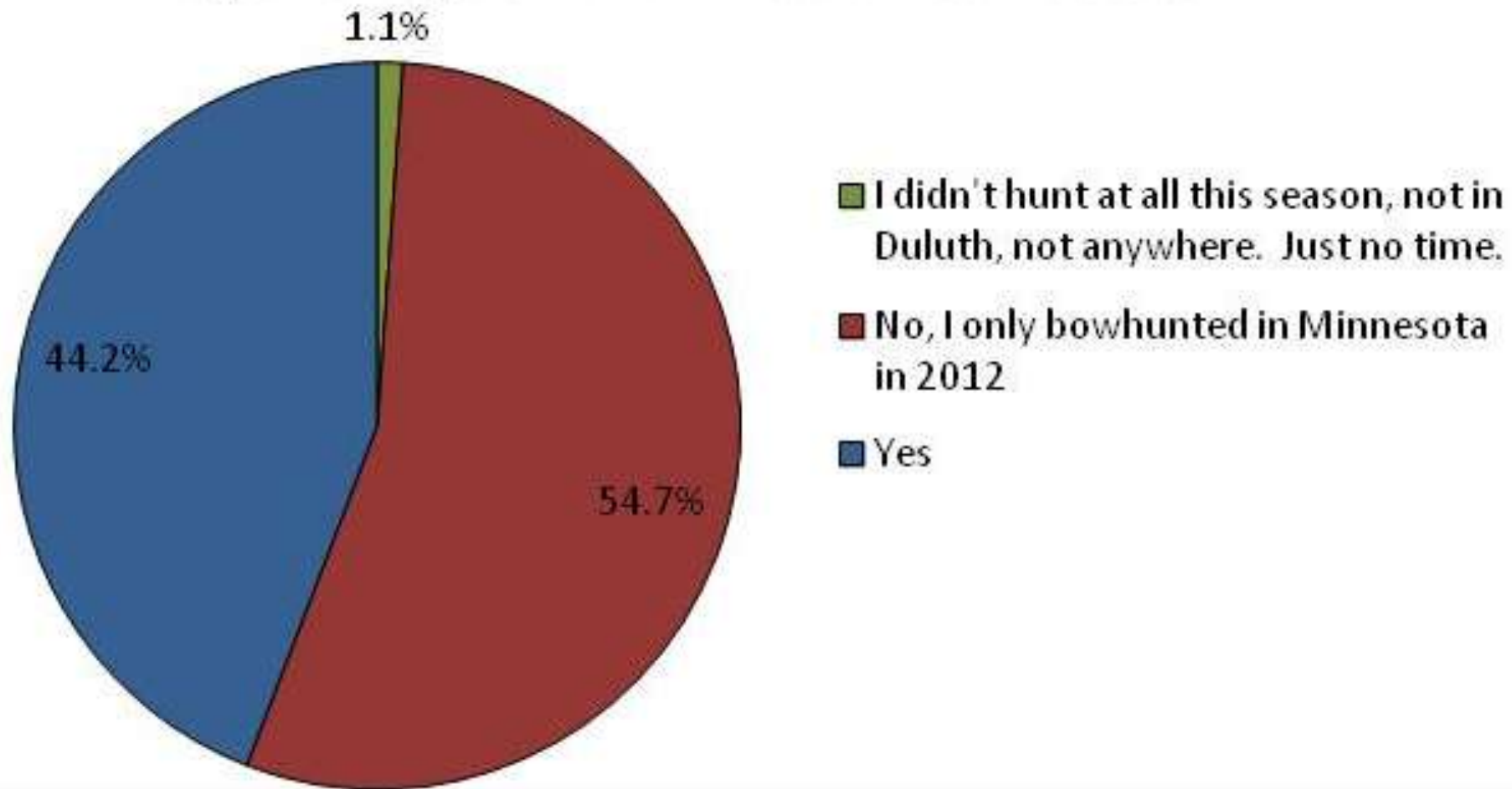


Average reported deer density was 3.0 ± 0.2 , indicating that returning hunters saw slightly less deer than in years past, and not significantly different than the value reported in 2011 (mean = 2.8, $P = 0.23$).



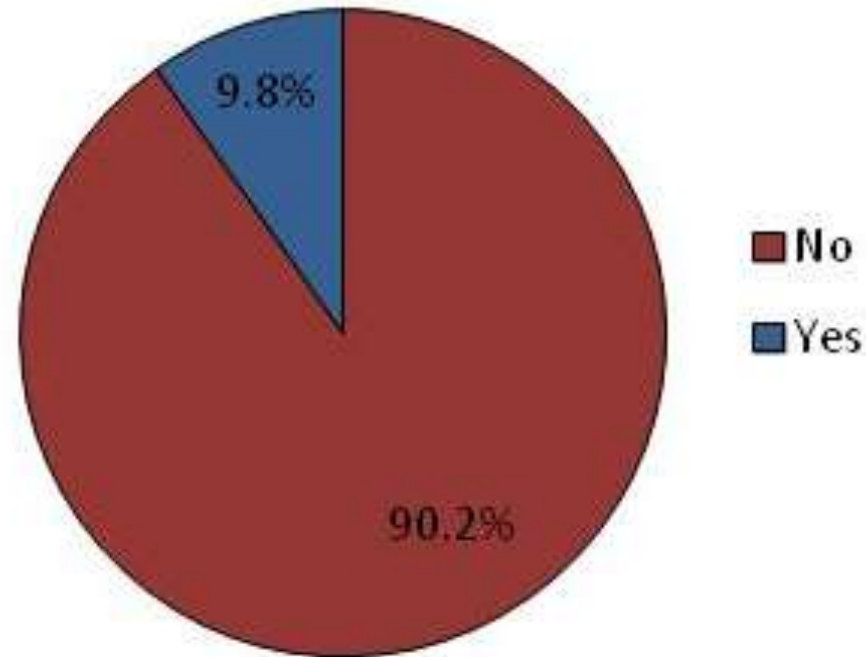
Even New hunters had other stand locations outside of Duluth that they spent time pursuing white-tailed deer in 2012.

Did you Participate in the MN State Firearms Season?



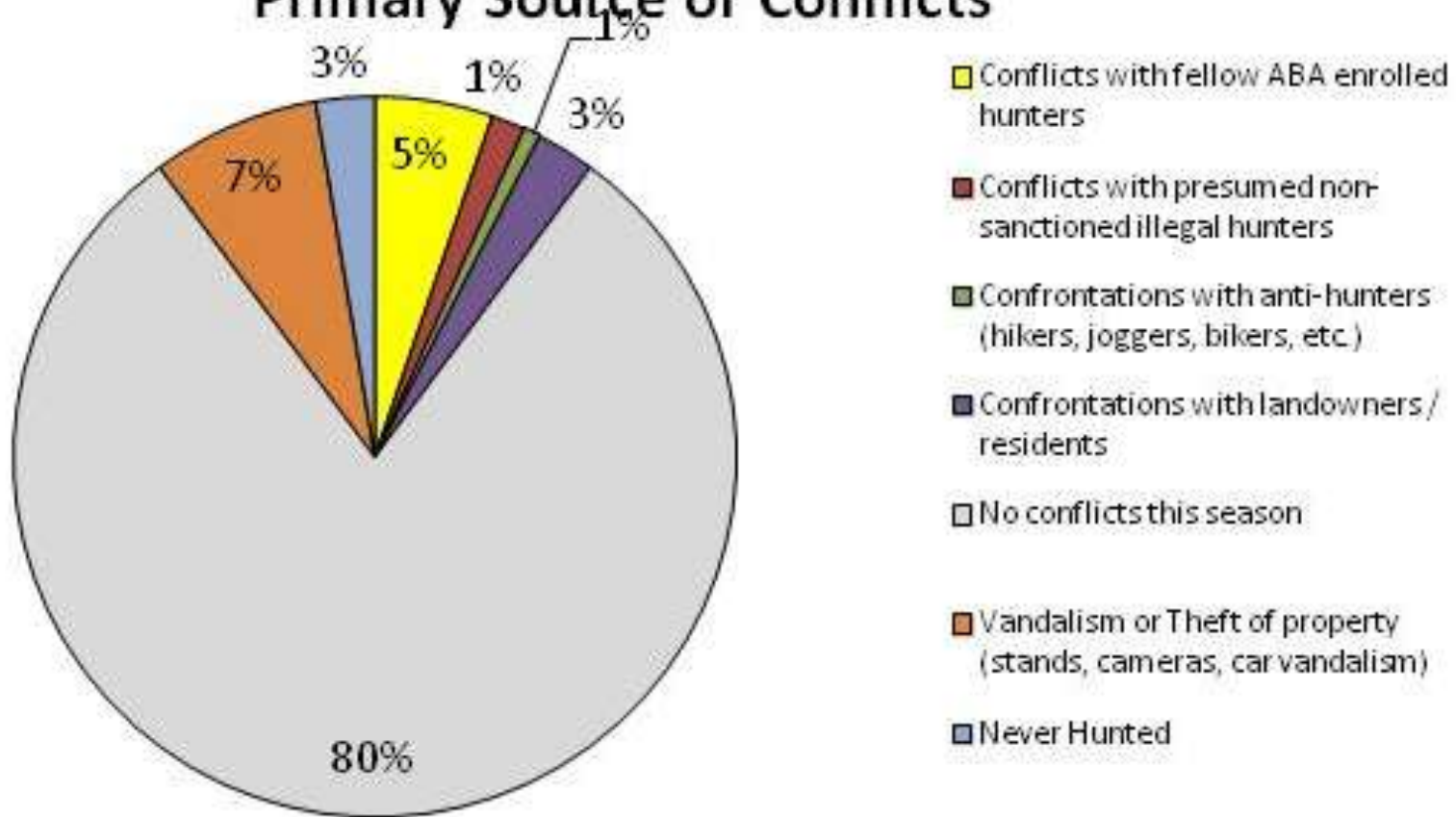
Survey participants were asked about their rifle hunting in 2012. Reason for this was that the ABA has been asked why our hunters don't shoot more bucks. We wondered if this was due to firearm hunting activity. 44.2% of our hunters reported participation in the MN State Firearms Season in 2012.

Did you Harvest a Buck in the MN State Firearms Season?



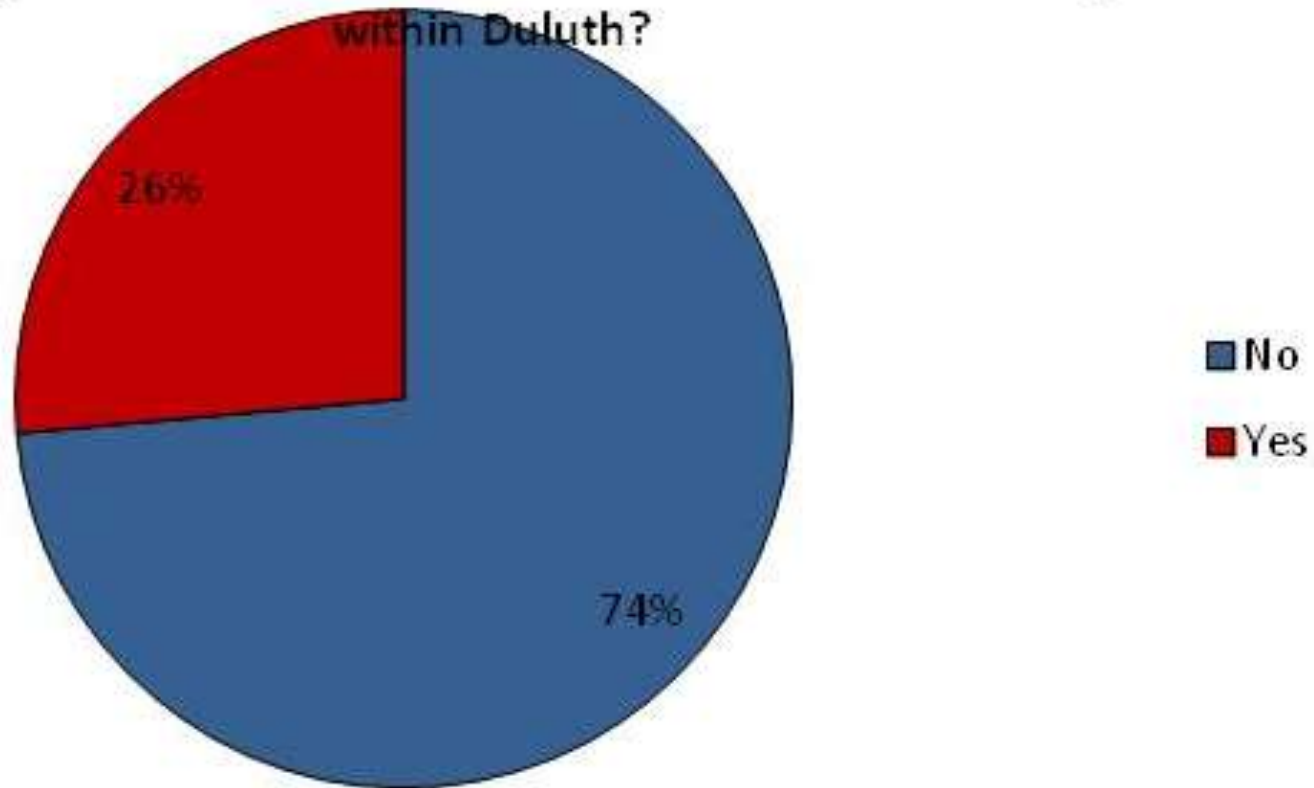
Of those hunters that participated in the State Firearms season, just under 10% reported harvesting a buck during the firearms season. Which is fine. This gives us some insight as to why more antlered individuals aren't harvested in Duluth.

Primary Source of Conflicts



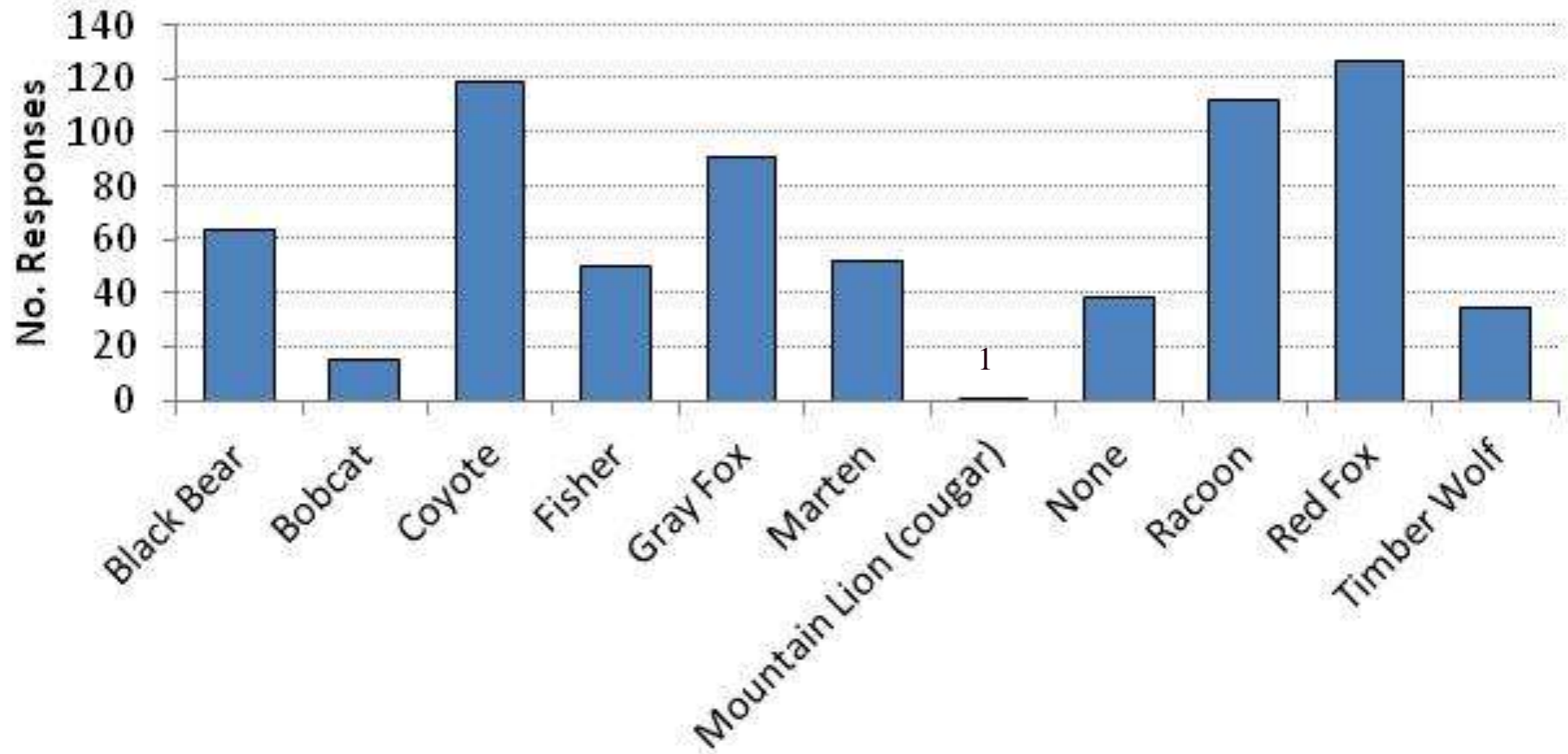
80% of respondents reported zero incidents in the woods in 2012. 1% reported issues with presumed non-ABA hunters. The Board can't do anything about that. You need to contact Duluth PD when you run into these hunters. But 5% of you reported having problems with other ABA hunters. You were instructed at Orientation Night to play nicely with each other. Please do so in 2013! This value really should be very close to 0%.

Could you have Harvested a Black Bear while Bowhunting within Duluth?



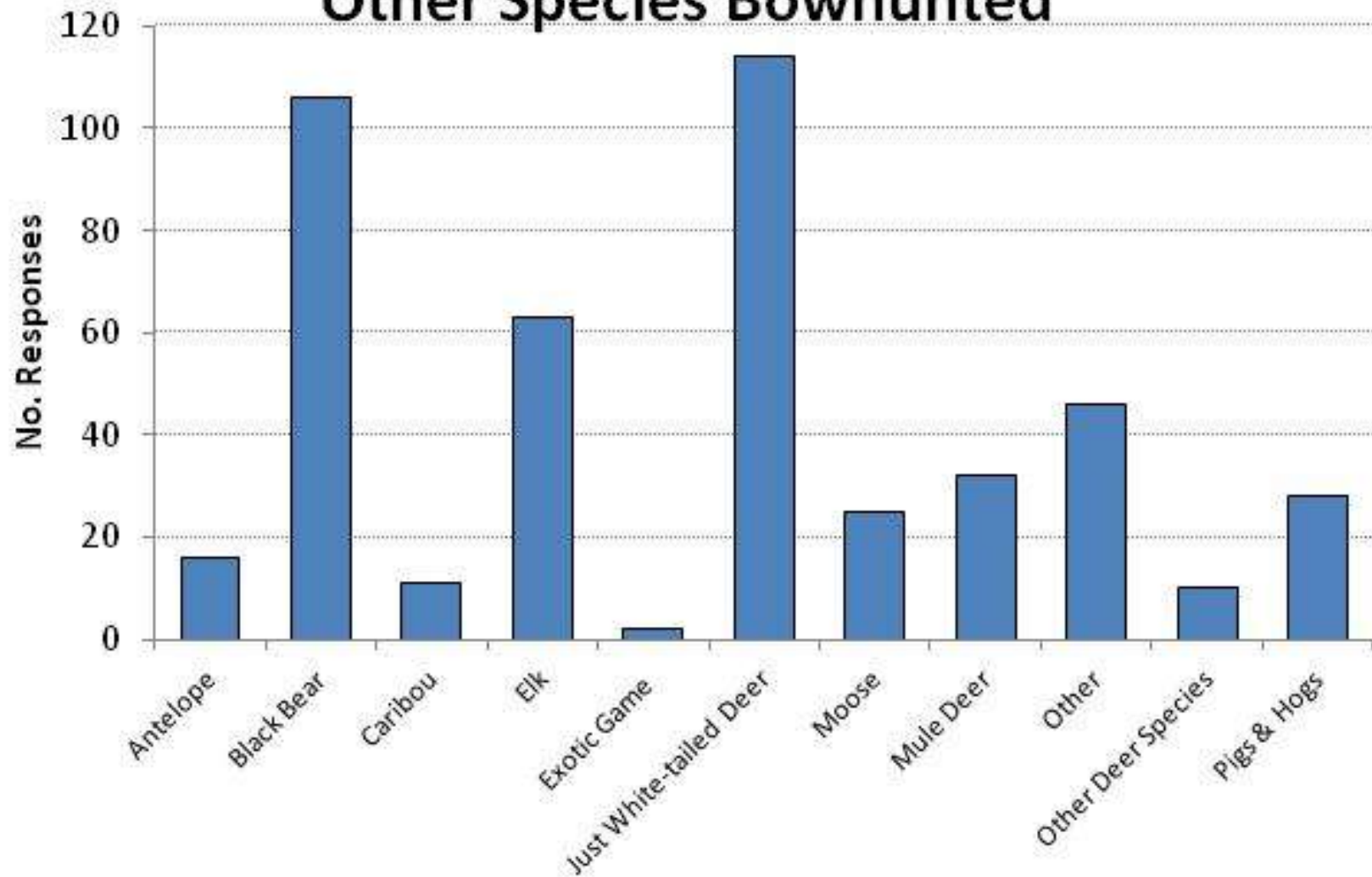
This estimate is lower than last year's reported number, but suggests that $\frac{1}{4}$ of respondents saw bear at close enough range to arrow, or 69 of the 265 survey respondents.

Other Critters Observed in 2012 Within Duluth



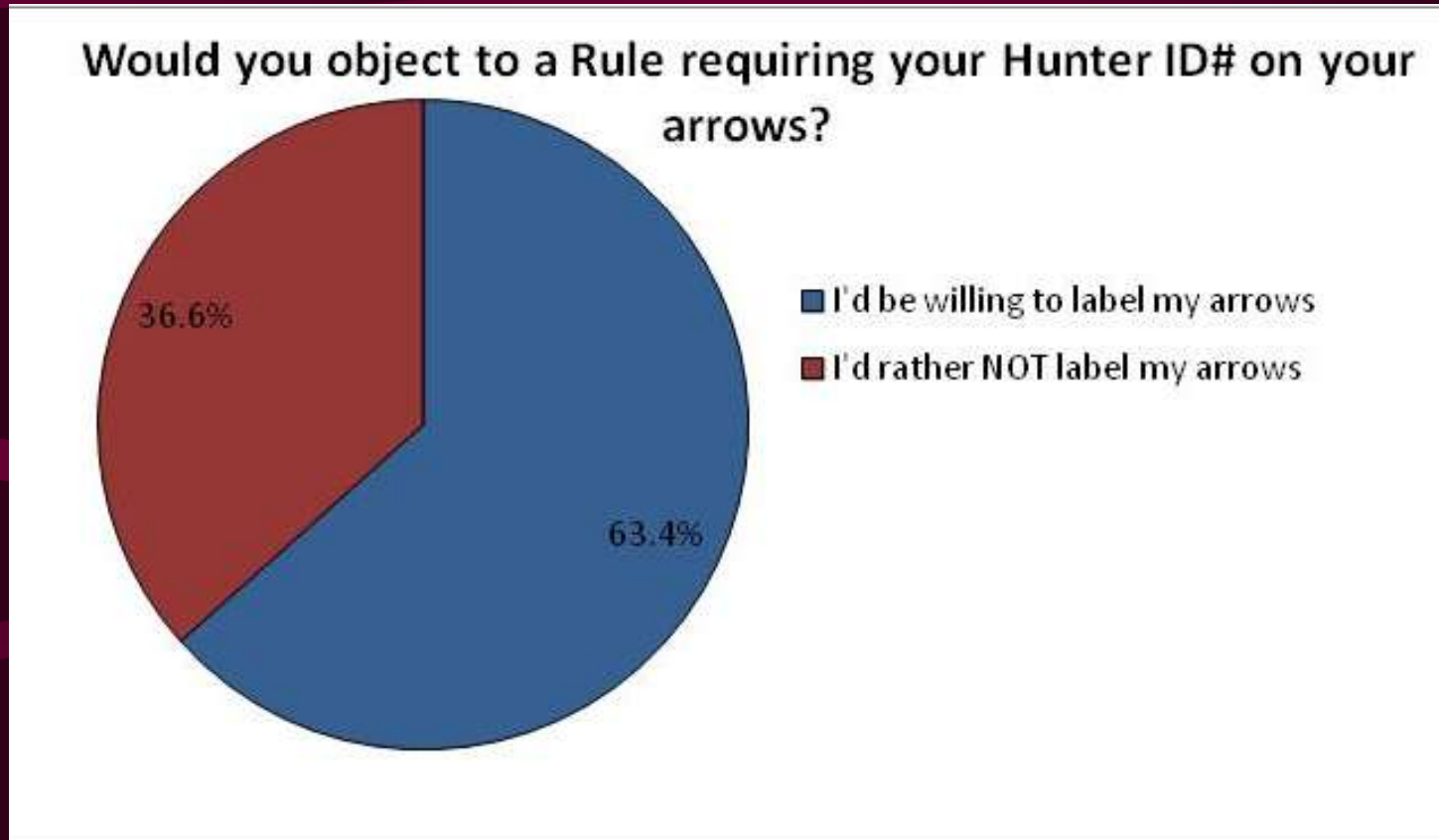
Observations from a tree stand or trail cameras . . . Lots of neat critters out there to see when the deer aren't cooperating!

Other Species Bowhunted



Duluth bowhunters appear to have a lot of collective bowhunting experience for game other than just Duluth deer.

Rules, Rules, and More Potential Rules



To be honest, the ABA is considering this new rule change. This consideration is NOT to make this even more onerous on our hunters. We really try to have justification for all of the urban hunt rules.

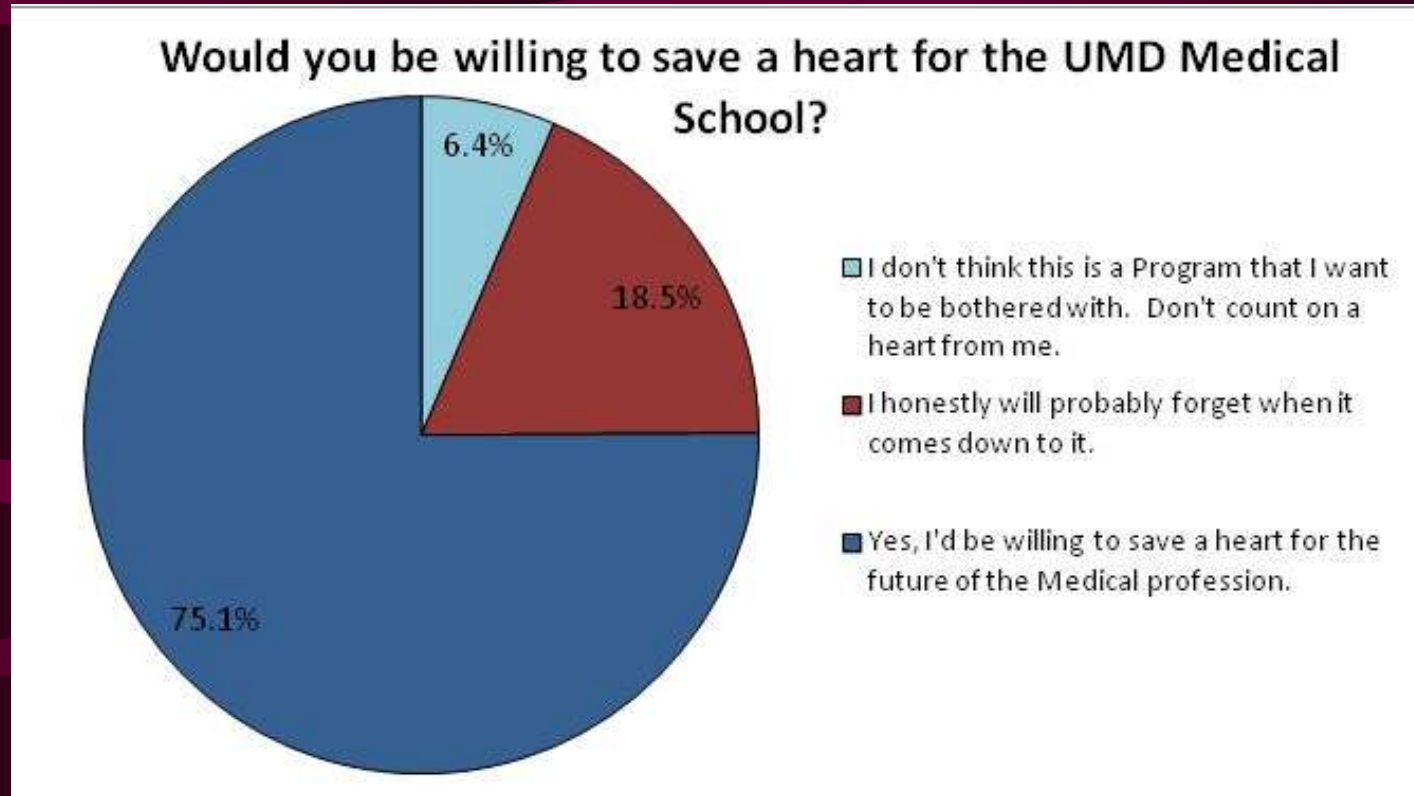
ID# on Arrows

Every season several dead deer are found by hunters and landowners with an arrow sticking out. Wouldn't it be great to have someone find your deer AND call you about it?

Another issue we run into is arrows being found OUTSIDE of legal hunting areas. The ABA would LOVE to tell authorities that these arrows are non-ABA illegal hunters, rather than illegal ABA hunters.

And lastly, one individual bemoaned that this rule isn't ANYWHERE in the world, so why Duluth? You'd be wrong here. Most urban hunts actually do have this requirement, and many Western States do as well. So Duluth would not be setting a precedence. We'd be following the lead of others.

Do you have a Heart?



As you know, the UMD Medical School has requested hearts from us for the past three 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. The ABA wanted to gauge interest prior to committing to doing this again in 2013. Perhaps we will still commit. Thanks!

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

