

The Incidence of Daytime Road Hunting During the Dog and No-Dog Deer Seasons in Mississippi: Comparing Recent Data to Historical Data

Preston G. Sullivan, *Coalition for Ethical Deer Hunting, ethicaldeerhunting@gmail.com*

Elizabeth A. Swoope, *Coalition for Ethical Deer Hunting, ethicaldeerhunting@gmail.com*

Abstract: To investigate whether the incidence of road hunting during the dog and no-dog portions of the Mississippi deer season continues to be the problem that it was during the 1980-1981 and 1982-1983 deer seasons, the number of road hunting citations from the 2012-2013, 2013-2014, and 2014-2015 deer hunting seasons was analyzed. Road hunting violations were significantly more common during the dog seasons than during the no-dog seasons, by a 3.8 to 1 ratio when standardized to average tickets per day. The average number of tickets per day for road hunting did not decrease by as high a percentage as the average number of paid hunting licenses during the two comparison periods.

Introduction

Road hunting continues to be both a public safety hazard and a public nuisance in Mississippi during regular gun deer hunting season, especially during dog-deer hunting season. Citations for road hunting are issued at a much higher rate per day during dog-deer hunting splits than during no-dog (still) hunting splits.

Background

In a study of road hunting citations issued during the 1980-1981 and 1982-1983 Mississippi deer hunting seasons, it was determined that the number of road hunting citations issued per day during dog-deer hunting splits was from four to nearly six times as high as the number issued per day during regular gun (still/no dog) seasons, differences that were highly statistically significant (Steffen et al. 1983). The numbers from the paper are presented in tables 7, 8, and 9 in the Appendix.

The authors also discussed the negative public image that road hunting presented to the non-hunting public and the public safety risk associated with road hunting. They reported that road hunting was perceived by the public as being unethical, unsafe, unsporting and illegal.

Furthermore, the authors stated that the road hunting problem was not due to the use of dogs for deer hunting, per se, but to the unethical and unsafe behavior by some dog-deer hunters during dog-deer season. They also stated that negative public perception of dog-deer hunting because of road hunting could result in the prohibition of dog-deer hunting, which would deprive ethical dog-deer hunters of their sport or even negatively affect the sports of deer hunting or hunting in general.

Over 30 years later, little has changed.

Methods

To compare recent daytime road hunting citation rates to those from over 30 years ago, we obtained the road hunting and headlighting citations issued in the 2012-13, 2013-14 and the 2014-15 deer seasons

from the Mississippi Dept. of Wildlife, Fisheries and Parks (MDWFP). We compared the incidence of daytime road hunting citations between the dog and no-dog portions of the last three deer seasons.

The data contained both road hunting and headlighting citations. We excluded any nighttime road hunting citations (i.e., a road hunting citation for which there was a headlighting citation for the same hunter on the same date) because nighttime road hunting was probably not associated with dog-deer hunting. This appears to match the criteria used in the 1983 paper. We also analyzed only the citations issued during the regular gun/dog and gun/no-dog seasons (i.e., no citations issued during archery, primitive, or non-deer seasons were included).

During routine data exploration, we discovered that for several hunters, there were from two to five citations issued for the same offense (either road hunting or headlighting) on the same day. In those cases, only one citation per offense type was included in the analyses (i.e., second and subsequent citations were deleted).

A flow chart documenting how the data were prepared for processing is shown on page 8.

The data analyses were generated using Base SAS software, Version 9.4 of the SAS System for Windows¹. To test differences in road hunting violation rates between the dog and no-dog portions of the deer season, a chi-square goodness-of-fit test was used. Expected violation rates were based on the total number of days available for dog and no-dog deer hunting during each season.

Results

Deer hunters were involved in 240, 252, and 199 road hunting cases during FY13 (2012-2013), FY14 (2013-2014), and FY15 (2014-2015) gun deer seasons, respectively. Table 1 summarizes the number of hunting days available and the number and rate of road hunting citations that occurred for the dog and no-dog portions of the combined FY13, FY14, and FY15 gun deer seasons. Tables 2, 3 and 4 present the same data shown in Table 1 by individual year.

Table 1. The number of hunting days available, road hunting citations issued, and the daily citation rate during the dog and no-dog portions of the FY13, FY14, and FY15 Mississippi gun deer seasons combined.

FY 13-14-15		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	117	82.4	654	94.6	5.6
	First split	33	23.2	218	31.6	6.6
	Second split	84	59.2	436	63.1	5.2
No-dog		25	17.6	37	5.4	1.5
Total gun deer season		142		691		4.9

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Table 2. The season dates, number of hunting days, citations issued, and the daily citation rate during the dog and no-dog portions of the FY13 Mississippi gun deer season.

FY 13		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	39	81.3	225	93.8	5.8
	11/17/2012-11/20/2012	14	29.2	80	33.3	5.7
	12/24/2012-01/17/2013	25	52.1	145	60.4	5.8
No-dog	12/15/2012-12/23/2012	9	18.8	15	6.3	1.7
Total gun deer season		48		240		5.0

Table 3. The season dates, number of hunting days, citations issued, and the daily citation rate during the dog and no-dog portions of the FY14 Mississippi gun deer season.

FY 14		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	39	83.0	241	95.6	6.2
	11/23/2013-12/01/2013	9	19.1	83	32.9	9.2
	12/24/2013-01/22/2014	30	63.8	158	62.7	5.3
No-dog	12/16/2013-12/23/2013	8	17.0	11	4.4	1.4
Total gun deer season		47		252		5.4

Table 4. The season dates, number of hunting days, citations issued, and the daily citation rate during the dog and no-dog portions of the FY15 Mississippi gun deer season.

FY 15		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	39	83.0	188	94.5	4.8
	11/22/2014-12/01/2014	10	21.3	55	27.6	5.5
	12/24/2014-01/21/2015	29	61.7	133	66.8	4.6
No-dog	12/16/2014-12/23/2014	8	17.0	11	5.5	1.4
Total gun deer season		47		199		4.2

Road hunting violations were more common, relative to the days available, during the dog season for deer than during the no-dog season. Across the three years, there were nearly 3.8 times as many citations written per day during dog season as compared to no-dog season. The rates were 3.4, 4.4, and 3.4 for FY13, FY14, and F15, respectively.

Assuming that citations represented a random sample of all illegal road hunting activities occurring during the deer season, violations of the Mississippi statute occurred significantly more often during the dog hunting seasons than during still hunting seasons: overall ($\chi^2_1=71.45$, $P<0.0001$), FY13 ($\chi^2_1=24.68$, $P<0.0001$), FY14 ($\chi^2_1=28.51$, $P<0.0001$), and FY15 ($\chi^2_1=28.51$, $P<0.0001$).

We also looked at average number of citations per day of the week for both dog and no-dog seasons and found that the ratio varied considerably by day of the week. As expected, the number of citations

per day was generally higher on Friday, Saturday, and Sunday than on the other days of the week. Table 5 shows the comparison in table format and Figure 1 presents the same data in a graph.

Table 5. Combined citations per day by day of the week and the ratios for dog to no-dog seasons over the three years.

Day	Dog	No-Dog	Dog/No-Dog Ratio
Mon	4.1	1.8	2.3
Tue	2.2	1.0	2.2
Wed	3.4	0.3	11.3
Thu	3.4	0.3	11.3
Fri	6.7	3.0	2.2
Sat	13.1	3.0	4.4
Sun	6.5	0.8	8.1
Overall	5.6	1.5	3.8

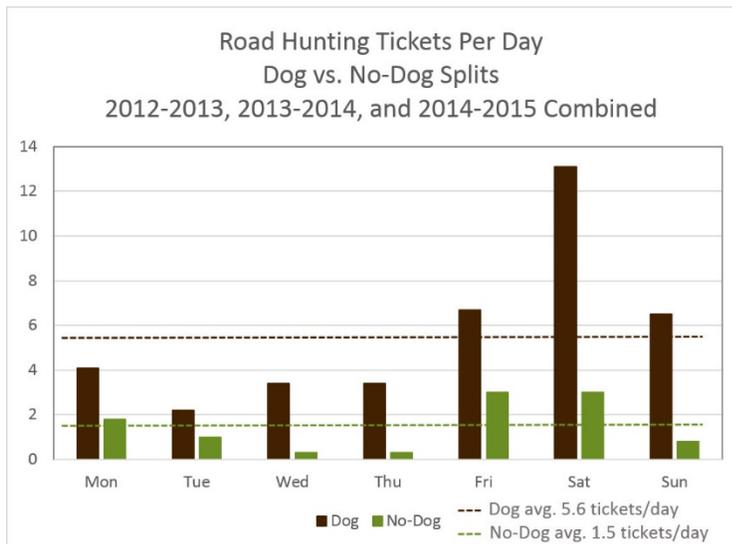


Figure 1. Combined citations per day by day of the week and the ratios for dog to no-dog seasons over the three years (the data from table 5 presented in graphical form).

Discussion

It is clear that road hunting citations were issued at a far higher rate per day during the dog-deer season than during still hunting season. There were 3.4, 4.4 and 3.4 times as many road hunting citations issued per day during the dog-deer season than during the still-hunting season during the FY 13, 14, and 15 deer seasons, respectively, and the average over the three seasons was 3.8 times as many for dog-deer as compared to still-hunt seasons. This difference can be partially explained by an increased number of hunters during the gun/dog season, but there certainly are not three or four times as many dog-deer hunters as still hunters; dog-deer hunters are likely overrepresented in the road hunting citation numbers because their method of hunting makes them far more likely to hunt from the road than still hunters do.

Members of the Mississippi Hunting Dog Association complain that the disagreement between dog-deer hunters and still hunters gives anti-hunting groups ammunition to use against all hunters. However, we suggest that road hunting and other common dog-deer hunter behavior provides anti-hunting groups with tangible evidence of a legitimate public safety hazard. Road hunting is perceived by the public as being unethical, unsafe, unsporting and illegal (Steffen et al., 1983). Despite the fact that these problems were identified by Mississippi Department of Wildlife Conservation personnel over 30 years ago, little, if anything, has been done to change this situation.

The Future

What is the cost to the law enforcement section of the Mississippi Department of Wildlife, Fisheries and Parks for policing dog-deer hunters as compared to still hunters? Certainly almost every Mississippi resident, as well as many out-of-state visitors, would benefit from less road hunting. Game wardens would have more time to pursue other violations, the public would be safer by having fewer armed hunters shooting on public roads and blocking public roads, and the public perception of hunting in general by the non-hunting public traveling rural roads would improve.

Since the original study was done over 30 years ago, the average number of road hunting incidents per day has declined somewhat, from 5.7 citations per day (FY 81 and 83 combined) to 4.9 citations per day (FY 13, 14, and 15 combined).

There is no way to quantify how many hunters hunted deer during the study years. However, data are available for the number of paid hunting licenses for four of the five years (“US Fish And Wildlife Service National Hunting License Report”). While those numbers are not specifically for deer hunting licenses, they do provide some information on the trend in the total number of hunters in those years.

Table 6. The number of paid hunting license holders in Mississippi in selected years.

Year	Licenses
1980	288,510
1982	288,973
Avg.	288,742
2012	226,940
2013	220,266
Avg.	223,603

Although the average number of paid licenses for 2012 and 2013 is about 77% of the average number of paid licenses for 1980 and 1982, the average road hunting citations per day for FY13-FY15 are 86% of the average rate for 1980 and 1982. The citation rate per day has decreased by a smaller percent than the number of paid licenses decreased. If the citations for FY15 are excluded because the paid license numbers for 2015 are not available, the average citations per day for FY13-FY14 is 5.2, or 91% of the FY81/FY83 average citations per day.

What is the future of deer hunting in Mississippi? Does Mississippi have any chance of becoming a premier destination for out-of-state deer hunters when the risk of road hunting and deer-dog

trespass onto private land remain serious problems? Will the higher enforcement cost of accommodating road-hunting dog-deer hunters continue just because dog-deer hunters are willing to buy a hunting license? Will the safety hazard and public nuisance to travelers caused by dog-deer hunters be allowed to continue?

Literature Cited

Steffen, D. E., D. M. Lewis, and P. J. Strong, 1983. The Incidence and Implications of Road Hunting During the Dog and No-Dog Deer Seasons in Mississippi. Proc. Annu. Conf. Southeast. Assoc. Fish and Wildl. Agencies. 37:513-581.

U.S. Fish & Wildlife Service National Hunting License Report,
<http://wsfrprograms.fws.gov/Subpages/LicenseInfo/Hunting.htm>

Appendix

Table 7. The number of hunting days available, road hunting citations issued, and the daily citation rate during the dog and no-dog portions of the FY1981 and FY1983 Mississippi gun deer seasons combined.

FY 1981, 1983		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	71	71.0	541	92.3	7.6
No-dog		29	29.0	45	7.7	1.6
Total gun deer season		100		568		5.7

Table 8. The season dates, number of hunting days, citations issued, and the daily citation rate during the dog and no-dog portions of the FY1981 Mississippi gun deer season.

FY 1981		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	30	68.2	267	92.7	8.9
	11/22/1980-12/01/1980	10	22.7	153	53.1	15.3
	12/27/1980-01/15/1981	20	45.5	114	39.6	5.7
No-dog	12/13/1980-12/26/1980	14	31.8	21	7.3	1.5
Total gun deer season		44		288		6.6

Table 9. The season dates, number of hunting days, citations issued, and the daily citation rate during the dog and no-dog portions of the FY1983 Mississippi gun deer season.

FY 1983		Days Available		Citations		
Hunting season	Season dates	N	% of Total	N	% of Total	Citations per day
Dog	All dog days	41	73.2	274	91.9	6.7
	11/20/1982-12/01/1982	12	21.4	109	36.6	9.1
	12/18/1982-01/15/1983	29	51.8	165	55.4	5.7
No-dog	All no-dog days	15	26.8	24	8.1	1.6
	11/13/1982-11/19/1982	7	12.5	21	7.0	3.0
	01/16/1983-01/23/1983	8	14.3	3	1.0	0.4
Total gun deer season		56		298		5.3

Assuming that citations represented a random sample of all illegal road hunting activities occurring during the deer season, violations of the Mississippi statute occurred significantly more often during the dog hunting seasons than during still hunting seasons: overall ($\chi^2_1=129.37$, $P<0.0001$, not calculated or reported by Steffen, et. al.), FY1981 ($\chi^2_1=78.74$, $P<0.0001$) and FY 1983 ($\chi^2_1=52.39$, $P<0.0001$).

The FY 1981 and FY 1983 numbers were reanalyzed using SAS and the probabilities were the same, although the chi-square values were slightly different, probably due to the difference between using manual methods and tables to calculate the original values and using more precise computer algorithms to recalculate the values (1981: manual $\chi^2_1=78.74$, SAS $\chi^2_1=79.76$, 1983: manual $\chi^2_1=52.39$, SAS $\chi^2_1=53.38$).

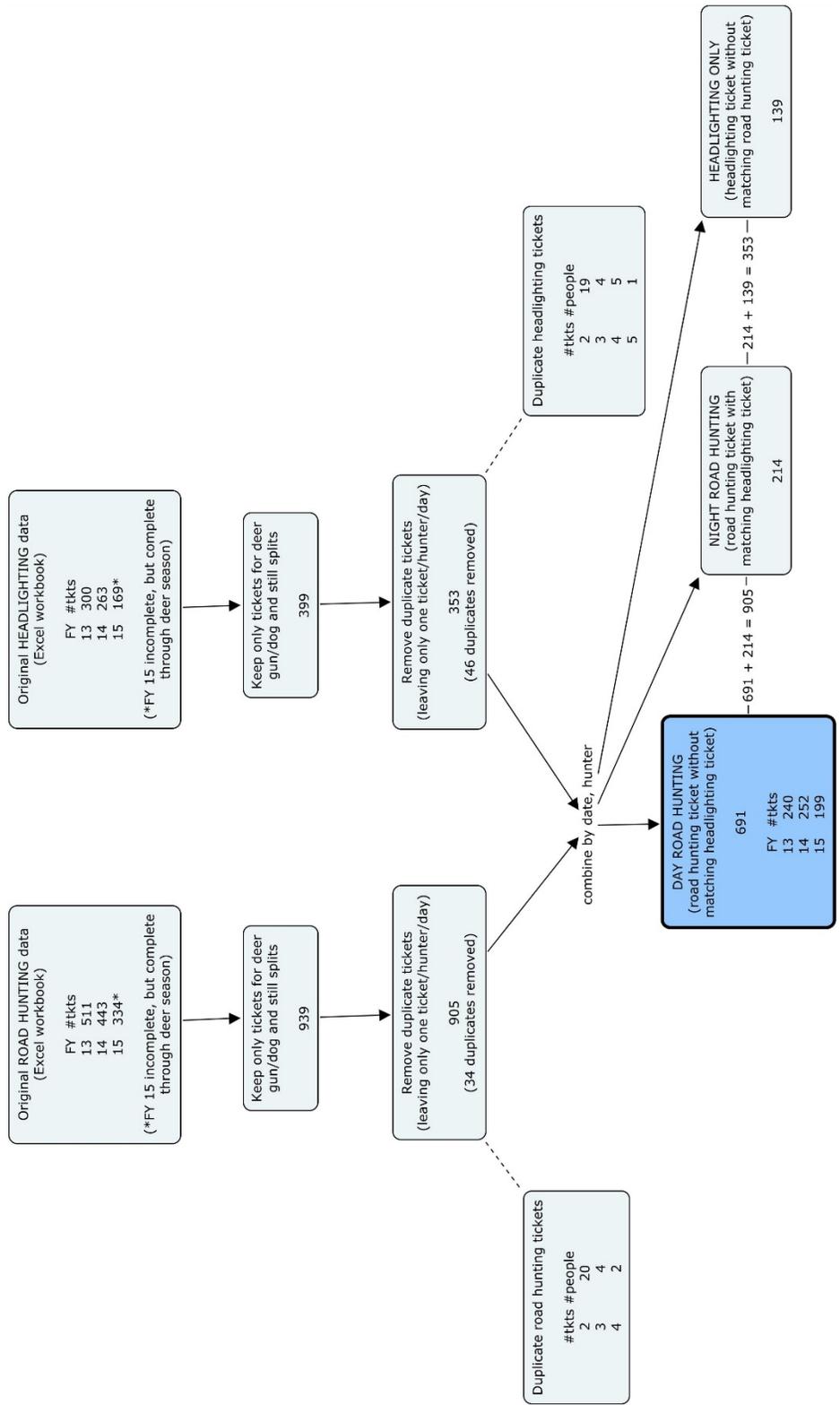


Figure 2. Flow Diagram Documenting Preparation of Citation Data for Statistical Analysis