2004 SOUTH CAROLINA DEER HARVEST REPORT



SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES DEER RESEARCH & MANAGEMENT PROJECT



Submitted by

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INTRODUCTION

The white-tailed deer is the most popular, sought after, economically important, and controversial game animal in South Carolina. The 2004 Big Game Hunter Survey represents the South Carolina Department of Natural Resources' (DNR), Wildlife Section's ongoing commitment to conduct pertinent research related to the state's white-tailed deer resource. The primary objectives of this survey research were to obtain valid estimates of; (1) the statewide deer harvest in 2004, (2) the harvest of deer in the constituent counties of the state, (3) hunting effort related to deer, (4) resident and non-resident hunter activities, and (5) weapons use, weapons preference, and harvest rates by weapon type. Information on hunter opinion related to certain aspects of the deer resource as well as estimates of the wild hog and coyote harvest in the state is also presented.

Due to the importance of deer as a state resource, DNR believes that accurately assessing the harvest of deer, as well as hunter participation in deer hunting, is key to the management of this species. Proposed changes in deer-related laws and regulations should have foundations in biology, therefore, the population dynamics associated with annual hunting mortality cannot be ignored. Similarly, when issues arise that do not involve biological parameters, it is important to have information related to deer hunter activities afield because they too form an important basis for managing deer.

Since the inception of the Statewide Deer Research and Management Project (Deer Project) the methods used to document the state's deer harvest have changed. Historically, deer harvest figures were developed using a system of mandatory deer check stations in the 18 county Upstate (Game Zones 1, 2, & 4) in conjunction with reported harvests from properties enrolled in the Antlerless Deer Quota Program (ADQP) in the 28 county Coastal Plain (Game Zones 3 & 5-11). This system yielded an actual count of harvested deer and was, therefore, an absolute minimum harvest figure. Shortcomings in this system included deterioration of check station compliance in the Upstate and failure to report by ADQP cooperators in the Coastal Plain. Also, since the acreage enrolled in the ADQP tends to be about one-half of the deer habitat in the Coastal Plain, past harvest figures have not documented deer harvests on non-quota lands (4.8 million acres) because there was no legal requirement to report harvested deer in the Coastal Plain. Therefore, it is suspected that historic deer harvest figures only accounted for about one-half of the total deer harvest that occurred annually in the state.

Survey Methodology

The 2004 Big Game Hunter Survey represents a near random mail survey that involved a single mailout. The questionnaire for the 2004 Big Game Hunter Survey was developed by Wildlife Section personnel
(Figure 1). The mailing list database was constructed by randomly selecting 25,000 known Big Game Permit
holders that included 5 license types, the first 3 of which have a Big Game Permit included. The license types
included: (1) Resident Sportsman's, (2) Resident Combination, (3) Resident Junior Sportsman's, (4) Resident
Big Game Permit, and (5) Non-resident Big Game Permit. The number of individuals associated with each
license type was based on an attempted sampling rate of 15 percent for licenses purchased through December of
2004. Since deer seasons statewide end on January 1 there was no need to sample individuals that were licensed
thereafter.

Experience gained from past survey efforts indicated that even though licenses used to construct the database for each license type are randomly selected, there are biases associated with counties being either under or over-represented. In order to avoid this identified form of bias, a minimum number of each type of license from every county was randomly selected and entered. The final mailing list for each license type was then randomly selected from each license type database.

Statistical analysis was conducted using Statistix 7 (Analytical Software, Tallahassee, FL)

Acknowledgments

Special thanks are due DNR Licensing personnel for their cooperation in building the licensee database and data entry associated with the completed surveys. Specifically, thanks go to Billy McTeer for his overall cooperation as Licensing Coordinator and Vanessa Calhoun for her outstanding data entry. Thanks to Jay Butfiloski, DNR Furbearer Project supervisor, for his considerable efforts in data entry form design.

Thanks to South Carolina deer hunters. Funding for this report, as well as all activities related to the Statewide Deer Research and Management Project, is made possible through hunters' participation in antlerless deer tag programs.

Results and Discussion

As with any mail survey, a portion of the attempted sample (25,000) was returned as undeliverable mail (763). Therefore, the actual attempted sample was 24,237 representing 14.8 percent of the entire population (162,815) of license holders. A total of 9,234 completed surveys were returned yielding a 38.1 percent response rate and 5.7 percent sampling rate on the entire licensee population. Response rates for resident hunters was less (36.1 percent) than for non-residents (51.7 percent).

Deer Harvest

During the 2004 deer season it is estimated that a total of 125,550 bucks and 124,655 does where harvested for a statewide total of 251,205 deer (Table 1). This figure represents an 8.1 percent decrease in harvest from 2003 (273,504) and a 21.5 percent decrease from the record harvest established in 2002 (319,902). After many years of rapid increase, the deer population in South Carolina has been stable since about 1997 and the reduction in harvest seen in both 2003 and 2004 can likely be attributable to several factors. (1) The state experience a very significant drought 1998-2002, and although rainfall has been more normal the last 2 years, any reduction in reproduction, recruitment, and survival of deer during the drought would result in reduced deer numbers in years immediately following the drought. (2) The good rainfall that was experienced in spring/ summer 2004 produced an abundance of natural foods for deer (including acorns) which worked to keep deer movements low during the fall hunting season. (3) Fall temperatures in 2004 were unseasonably warm which also contributed to decreased daytime movements of deer during the hunting season.

The bottom line is that deer movements in 2004 were suppressed by food availability and warm weather during the hunting season. Deer movements are directly linked to hunter success, i.e. hunters are less likely to be successful if deer movements are low. Finally, if the drought decreased reproduction, recruitment, and survival of deer, it would likely be expressed in terms of fewer young deer available to harvest in 2003 and 2004 and evidence appears to indicate this. Therefore, it is reasonable to expect that harvest rates of deer in the affected age classes will be low until those age classes are replaced by cohorts born following the effects of the drought.

Harvest Per Unit Area County Rankings

Comparisons can be made between deer harvests from the various counties in South Carolina if a harvest per unit area is established. Harvest per unit area standardizes the harvest among counties regardless of the size of individual counties. One measure of harvest rate is the number of deer taken per square mile (640ac. = 1 mile²). When considering the estimated deer habitat that is available in South Carolina, the deer harvest rate in 2004 was 12.0 deer per square mile over the entire state (Table 2). This harvest rate should be considered extraordinary and is one of the highest statewide deer harvest rates ever documented anywhere. Three counties recorded harvest rates in excess of 20 deer per square mile with the top counties including; Bamberg (29.0 deer/mile²), Allendale (26.7 deer/mile²), Abbeville (21.1 deer/mile²), Union (19.8 deer/mile²), and Hampton (18.5 deer/mile²) (Table 2).

Deer Harvest Rankings by County

Total deer harvest from a county is not comparable among counties because there is no standard unit of comparison, i.e. counties vary in size and are, therefore, not directly comparable. However, it has become customary to rank the counties based on number of deer harvested (Table 3). The top 5 counties during 2004 were Orangeburg, Fairfield, Colleton, Hampton, and Allendale.

Deer Harvest on Wildlife Management Areas

Deer hunting on Wildlife Management Areas (WMAs) remains popular in South Carolina with approximately 46,000 licensees having a WMA Permit. Wildlife Management Areas represent lands owned by DNR, other state owned lands enrolled in the WMA Program, US Forest Service lands enrolled in the WMA Program, and private and/or corporate lands that are leased by DNR as part of the WMA Program. Deer harvest figures for coastal WMAs are from check stations and are presented only for those WMA properties that have a deer check-in requirement. Deer harvest figures for upstate WMAs (Mountain and Central and Western Piedmont Hunt Units) were estimated by extrapolating the county deer harvest rates (deer/mi²) to the acreage of WMA land that falls within the respective counties comprising the WMA. This assumes that hunters on WMA lands exhibit effort and deer harvest patterns similar to those of the general licensee database that was surveyed. Finally, the estimated deer harvest on WMA lands is included in, not additive to, the county and statewide estimates found throughout this report.

During the 2004 season it is estimated that 4,425 bucks and 4,108 does were harvested for a total deer harvest on Wildlife Management Areas of 8,533 (Table 4). This figure represents a decrease of approximately 23.2 percent from 2003. If hunter effort and deer harvest patterns of hunters on WMAs are similar to that of the general licensee database then it would require approximately 4,739 hunters 139,837 days to harvest that number of deer on WMAs in South Carolina in 2004. If this assumption holds true, then approximately 4 percent of South Carolina's deer hunting activities (number of hunters, hunting effort, and deer harvest) takes place on WMAs.

Hunter Opinion Regarding Deer Numbers

In addition to biological parameters, hunter opinions also form an important basis for managing deer in South Carolina. The 2004 Big Game Hunter Survey asked participants their opinion regarding one topic; compared to past years, how would you describe the number of deer in the area that you hunt most often.

Response rates to this opinion question were high, averaging 98.6 percent among survey respondents that actually hunter deer. About half (51.5%) of hunters indicated that the number of deer in the area they hunted most often was about the same as in past years (Table 5). More hunters (31.1%) believed that the deer population was decreasing than increasing (17.4%). Significantly more residents (18.3%) than non-residents (13.0%) indicated that the population was increasing and fewer residents (30.1%) than non-residents (35.7%) indicated that the population was decreasing. On a scale of 1 to 3 with 1 being increasing, 2 being neutral, and 3 being decreasing, the overall rank mean of 2.15 suggests that hunters viewed the deer population as slightly decreasing.

Number of Deer Hunters

Even though all individuals receiving a survey were licensed to hunt deer, only 86.2 percent actually hunted deer. For residents, 84.4 percent of sampled licensees hunted deer and for non-residents 95.2 percent hunted deer. Extrapolating to the respective licensee populations yields 122,158 residents (Table 6) and 17,279 non-residents (Table 7) for a total of 139,437 deer hunters statewide during 2004. This figure is a modest 3.4 percent decline from the 144,291 hunters in 2003. Counties with the highest estimates for individual hunters include Fairfield, Orangeburg, Aiken, Colleton, and Laurens for resident hunters (Table 6) and Hampton, Allendale, Chester, Bamberg, and Fairfield for non-residents (Table 7).

Hunting Success

For determination of hunting success only those individuals that actually hunted deer were included in the analysis and similarly, success was defined as harvesting at least one deer. Overall hunting success in 2004 was 73.5 percent, which should be considered extraordinary. For the first time since the inception of the survey in 1997, residents were less successful (72.5%, Table 6) than non-residents (78.1%, Table 7). In past years, residents tended to have higher success rates primarily due to the fact that they spent nearly twice as many days hunting as non-residents. However, in 2004 non-residents spent about the same number of days afield per hunter as residents (see Hunter Effort section). Estimates for resident and non-resident success rates for all counties are presented in Tables 6 and 7. Success rates for resident hunters were highest in Jasper, Marion, Bamberg, Union, and Sumter and Williamsburg (tie). Non-residents experienced the highest success in Dillon, Greenville, Lexington, Marlboro, and Oconee counties. However, these counties had very few non-resident hunters.

Hunter Effort

For the purposes of this survey hunter effort was measured in days with one day being defined as any portion of the day spent afield. Resident hunters averaged 16.4 days afield for a total of 1,995,401 days deer hunting and non-residents averaged 16.2 days for a total of 279,858 days (Table 8). Compared to 2003, these figures represent a 4.1 percent decrease in effort for residents and a 10.2 percent increase in effort for non-residents. Total effort expended deer hunting in South Carolina during 2004 was estimated at 2,275,259 days (Table 8), down approximately 5.7 percent from 2003. Although hunting effort was down in 2004, the number of days devoted to deer hunting in South Carolina is very significant and points not only to the availability and popularity of deer as a game species, but to the obvious economic benefits related to this important natural resource. Previous surveys (2001) conducted by the United States Fish and Wildlife Service indicate that approximately 200 million dollars in direct retail sales are related to deer hunting in South Carolina annually.

The top 5 South Carolina counties for overall days of deer hunting during 2004 were Orangeburg, Aiken, Fairfield, Colleton, and Hampton (Table 8). Resident hunters expended the most hunting effort in Aiken, Orangeburg, Fairfield, Colleton, and Abbeville counties. Non-residents hunted the most in Hampton, Allendale, Chester, Jasper, and Bamberg counties and these 5 counties totaled 46 percent of all the non-resident deer hunting effort that took place in South Carolina in 2004. For the second consecutive year, there was more non-resident deer hunting effort in Hampton County than resident hunting activity.

Resident hunters who were successful at harvesting at least one deer averaged nearly three times as many days (22.2 days) afield as unsuccessful residents (7.8 days) (Table 8). Similarly, successful non-residents (19.6 days) averaged about 2 times the days afield when compared with unsuccessful non-residents (8.6 days).

The amount of effort required to harvest a deer varied between residents and non-residents and by the county hunted. On the average it took less time for non-residents to harvest a deer (7.57 days, Table 7) compared to residents (9.31 days, Table 6). This may be due to the fact that many non-residents hunt commercially where considerable preparation is done prior to the hunter's arrival. Also, there may be less selectivity with respect to deer harvested by non-residents. Counties requiring the least effort to harvest a deer included Beaufort, Jasper, Laurens, Clarendon, and Williamsburg for resident hunters (Table 6). On the other hand, non-residents spent less time to harvest a deer in Georgetown, Williamsburg, Lexington, Darlington, and Marlboro counties (Table 7), however, none of these counties exhibited what should be considered a high level of non-resident hunting activity.

Deer Harvest by Weapon Type and Weapons Utilization and Preference

All areas of South Carolina have long and liberal firearms seasons and the majority (79.8%) of deer are harvested with centerfire rifles (Table 9). Shotguns (10.6%) and archery equipment (5.2%) also contribute significantly to the overall deer harvest in the state, whereas, muzzleloaders, crossbows, and handguns combine to contribute less than 5 percent of the total harvest (Table 9).

Although rifles are used by approximately 90 percent of hunters, approximately two-thirds of hunters use multiple weapons during the course of the deer season (Table 10, Table 11). Resident hunters appear to be more flexible than non-residents in their use of multiple weapons and significantly more residents use archery equipment (22.8%) and shotguns (35.5%) than non-residents (15.8% and 18.2%) (Table 11). Two points can likely be made on this outcome. First, since most aspects of deer hunting (travel, accommodations, etc.) are typically more convenient for residents, they may have more time to devote to becoming comfortable or proficient with additional weapons, in this case archery equipment. Second, shotguns are the customary weapon related to hunting deer with dogs and the argument can be made that dog hunting is being practiced more by residents than non-residents. The weapons utilization data supports this contention.

On the other hand, non-residents (25.4%) used muzzleloaders more frequently than residents (18.1%). Keep in mind that muzzleloader or primitive weapons seasons are only available in Game Zones 1, 2, and 4 (the Upstate). It is suspected that the high utilization of muzzleloaders by non-residents is related to the availability

of this special season at an earlier date in South Carolina than in neighboring states. Also, the argument can be made that muzzleloaders require less commitment than archery equipment and would allow non-residents a comparatively easy method of harvesting deer during the special season.

Unlike weapons utilization, weapons preference is the single weapon that a hunter prefers. Obviously, a majority (79.5%) of deer hunters prefer rifles (Table 12). However, there are several interesting points that can be made about preferences for other weapons based on residency. Archery equipment and shotguns are preferred significantly more by residents (10.6% and 9.0%) than non-residents (7.5% and 3.3%) and muzzleloaders are preferred more by non-residents (3.1%) than by residents (1.3%) (Table 12). The explanation of this situation is likely similar to that for weapons utilization in that, (1) hunting is more convenient for residents and they can devote the time needed for archery, (2) the idea that residents do most of the dog hunting in the state and tend to use shotguns, and (3) non-residents use muzzleloaders to take advantage of a special season that is not available as early in their home state. Finally, non-residents (85.4%) prefer rifles significantly more than residents (78.2%), however, this is likely an artifact of the idea that non-residents participate less in dog hunting than residents, favoring rifles and still hunting.

Wild Hog and Coyote Harvest

The 2004 Big Game Hunter Survey also asked hunters to provide information on their wild hog and coyote harvesting activities. Documenting the harvest of these species has been difficult to accomplish in South Carolina, however, both wild hogs and coyotes are commonly taken incidental to deer hunting. On the one hand, wild or feral hogs are often though of as "game" and there is a certain amount of sport associated with harvesting hogs. Wild hogs provide quality meat for the hunter and mature hogs can make a highly sought-after "trophy". Wild hogs are not native to South Carolina or any part of the North American continent. They are descendants of European domestic hogs that escaped or were released dating back as far as the early Spanish explorers. Also, closed-range or fencing requirements for livestock did not arise until the 1900's and letting hogs "free-range" was common prior to fencing laws. Wild hogs were historically associated with the major river flood plain systems in Coastal South Carolina. Unfortunately, recent relocations of wild hogs by hunters appear to be responsible for the species populating areas where they were not found in the past. Wild hogs directly compete with native species like deer and wild turkey for habitat and food, and hogs can do significant damage to the habitat and agricultural production through their rooting activities. Legislation passed during the 2005 session of the South Carolina General Assembly prohibits the release of hogs in the state (SC Code Section 50-16-25).

During 2004 an estimated 23,932 wild hogs were harvested by deer hunters in South Carolina (Table 13), a 19.9 percent increase from 2003. It is important to note that the 2003 hog harvest was down about 14 percent from 2002. This decline was likely linked to heavy rainfall during winter, spring, and summer of 2003 which created flooded conditions in many river swamps systems during hog farrowing season. Results from 2004 likely represent a recovery of hog populations in areas that experienced flooding in 2003. Evidence of the presence of hogs in 44 of 46 counties was made by hunter harvest activities. Statewide, approximately 1.09 hogs/mile² were harvested and the top 5 counties for wild hog harvest per unit area were Allendale (7.01 hogs/mile²), Calhoun (3.50 hogs/mile²), Richland (3.44 hogs/mile²), Hampton (3.15 hogs/mile²) and Sumter (2.65 hogs mile²). With respect to river drainage systems, top counties for wild hog harvest per unit area include Allendale, Hampton, and Jasper in the lower Savannah River drainage and Calhoun, Richland, and Sumter counties in the Congaree/Wateree drainage.

On the other hand, coyotes are typically thought of as varmints that pose a threat to native game species. Like wild hogs, coyotes are a non-native species in South Carolina. However, the occurrence of coyotes in the state is more recent and they appear to have gotten to the state by two methods, (1) natural movements from western states and (2) illegal importation. Coyotes were first documented in Oconee and Pickens Counties in 1978 and were thought to be linked to animals that were illegally imported for hunting purposes. Evidence for this includes an illegal importation case that was made and the fact that coyotes had not been document in adjacent counties in Georgia and North Carolina. Within a few years coyotes began to appear in the western piedmont counties of Anderson, Abbeville, McCormick, etc. indicating a southeastern expansion from the original site. In the early 1980's coyotes were documented in Allendale County and were thought to be natural immigrants from Georgia since they had previously been documented in the adjacent Georgia counties. Coyotes from this source apparently populated to the Northeast until they encountered the Santee Cooper Lakes. In the late 1980's coyotes were documented in the Pee Dee Region, again associated with illegal imports. In any event, by the mid-1990's coyotes had been documented in all South Carolina counties.

Sportsmen often voice concern over the presence of coyotes and the potential impact they have on game species such as deer. Though coyotes are one of the most adaptable animals, they are not designed to prey on big game. The coyote's diet is chiefly composed of small mammals (rats and mice), insects, and a variety of vegetable matter including fruits. Clearly, coyotes will take very young deer and deer that are sick or injured, however, there is no reason to believe that coyotes constitute a threat to the deer population in South Carolina. On the other hand, since coyotes share the same habitat and food requirements as foxes, competition between

them can be important. For example, there has been a documented decline in the red fox population index as the coyote population has increased.

Coyotes are not protected animals in South Carolina and hunters are allowed to harvest them throughout the year during daylight hours. During 2004 it is estimated that approximately 22,379 coyotes were harvested by deer hunters in South Carolina (Table 13), an increase of 19.5 percent from 2003. There was evidence of coyotes being harvested in all counties and the substantial harvest increase in 2004 is likely related to the continued expansion of coyotes into habitats not formerly occupied. Although some may question this harvest figure, it is important to consider that this level of harvest can be achieved if only 16 of every 100 deer hunters kill a single coyote. Statewide approximately 1.02 coyotes/mile² were harvested and the top 5 counties for coyote harvest per unit area included Allendale (3.53 coyotes/mile²), Saluda (2.67 coyotes/mile²), Anderson (2.56 coyotes/mile²), Bamberg (2.51 coyotes/mile²), and Calhoun (2.38 coyotes/mile²).

Supplementary Information

The following section is not related to the 2004 Big Game Hunter Survey, but is offered as information relevant to the state's deer population.

According to the South Carolina Department of Public Safety (SCDPS), the number of reported deervehicle collisions for 2004 was 1,401 (Table 14). This figure is down 11.6 percent from 2003 (1,585 collisions) and is the lowest number of reported deer-vehicle collisions since prior to 1990. Since reporting of deer vehicle collisions is contingent upon notification of some law enforcement agency and then SCDPS, this figure should be considered a minimum. Also, the reader should bear in mind that reporting criteria have changed over time.

Average body weights and antler characteristic of deer vary among the constituent counties in South Carolina and are dependent on deer density and available nutrition (Tables 15 and 16). Statewide averages for male deer indicate that 1.5 year old bucks average about 107 lbs. and 3.6 antler points while bucks 2.5 years old and older average about 138 lbs. and 6.5 antler points. Yearling (1.5 years old) females average approximately 88 lbs. while does 2.5 years old and older average nearly 101 lbs. This information is based on sampling completed between 1987 and 1994.

Peak breeding in the Upstate and Coastal Plain occurs during late October and early November (Figure 2). Harvest dates for deer in the piedmont mirror the breeding season with the vast majority of deer being harvested during the relatively short peak of breeding (Figure 3). In the Coastal Plain, however, the relationship

between peak breeding and hunter harvest appears to be undermined by the early opening buck only seasons found in Coastal Game Zones. Opening early, coastal plain buck only seasons find deer in summer movement and behavior patterns, therefore, the animals are not as vulnerable to harvest as they are during the breeding season when movements are greatest. It is suspected that hunter disturbance during the early buck only season leads to a suppressed harvest during the breeding season when deer movements and hunter harvests should be greatest.

List of Tables

Table	Title	Page
1	Estimated statewide deer harvest in South Carolina in 2004.	15
2	County rankings based on deer harvest per unit area in South Carolina 2004	16
3	County rankings based on total deer harvest in South Carolina in 2004	17
4	Estimated deer harvest on Wildlife Management Areas in South Carolina in 2004	18
5	Hunter opinion (percent) regarding the number of deer in the area hunted most often in South Carolina in 2004 compared to previous years	18
6	Resident deer hunter and deer harvest statistics in South Carolina in 2004	19
7	Non-resident deer hunter and deer harvest statistics in South Carolina in 2004	20
8	Hunting effort (man/days) by county for successful and unsuccessful resident and non-resident hunters in South Carolina in 2004	21
9	Estimated deer harvest by weapon type in South Carolina in 2004	22
10	Number of deer hunters using each type of weapon in South Carolina in 2004	22
11	Weapons utilization (percent) among deer hunters in South Carolina in 2004	22
12	Weapons preference (percent) among deer hunters in South Carolina in 2004	22
13	Estimated wild hog and coyote harvest by deer hunters in South Carolina in 2004	23
14	Number of deer-vehicle collisions reported by the South Carolina Department of Transportation 2000-2004	24
15	Average live body weights of deer from South Carolina counties, based on historic data	25
16	Antler characteristics of male deer from South Carolina counties, based on historic data	26

List of Figures

Figure	Title	Page
1	South Carolina Department of Natural Resources 2004 Big Game Hunter Survey	27-28
2	Percent of female deer conceiving by week in South Carolina, based on historic data	29
	Percent of deer harvested by week of hunting season in South Carolina, based on historic data	29

Table 1. Estimated statewide deer harvest in South Carolina in 2004.

County	Acreage*	Square	Buck	Doe	Total	Harves		% Change
		Miles	Harvest	Harvest	Harvest	Ac/Deer	Deer/Mi. ²	from 2003
Abbeville	223,113	349	3,586	3,756	7,341	30.4	21.1	12.1
Aiken	500,546	782	4,102	3,677	7,779	64.3	9.9	29.6
Allendale	216,455	338	4,261	4,762	9,023	24.0	26.7	11.7
Anderson	219,068	342	2,730	2,398	5,128	42.7	15.0	44.3
Bamberg	196,573	307	4,345	4,564	8,910	22.1	29.0	33.2
Barnwell	281,764	440	3,056	3,090	6,145	45.9	14.0	-3.5
Beaufort	147,441	230	1,268	2,368	3,637	40.5	15.8	23.4
Berkeley	567,530	887	3,138	2,505	5,642	100.6	6.4	-18.9
Calhoun	190,584	298	2,254	1,655	3,909	48.8	13.1	-21.4
Charleston	288,732	451	2,600	2,826	5,426	53.2	12.0	-3.9
Cherokee	156,664	245	2,051	2,135	4,186	37.4	17.1	-4.9
Chester	300,589	470	3,984	4,331	8,315	36.1	17.7	-26.4
Chesterfield	372,478	582	2,856	2,183	5,039	73.9	8.7	13.9
Clarendon	298,087	466	2,445	2,524	4,969	60.0	10.7	-28.8
Colleton	502,666	785	5,565	4,750	10,315	48.7	13.1	20.8
Darlington	286,228	447	801	677	1,478	193.7	3.3	42.2
Dillon	214,069	334	785	699	1,485	144.2	4.4	1.6
Dorchester	302,717	473	2,425	1,852	4,277	70.8	9.0	4.3
Edgefield	246,543	385	2,629	1,913	4,542	54.3	11.8	-18.3
Fairfield	384,607	601	4,809	6,085	10,894	35.3	18.1	-18.7
Florence	397,888	622	2,435	3,231	5,666	70.2	9.1	-7.5
Georgetown	399,638	624	2,091	2,531	4,623	86.5	7.4	16.6
Greenville	294,257	460	697	463	1,160	253.6	2.5	-34.2
Greenwood	204,400	319	2,139	2,222	4,361	46.9	13.7	-18.4
Hampton	324,840	508	4,745	4,665	9,410	34.5	18.5	-1.8
Horry	533,336	833	2,009	1,261	3,270	163.1	3.9	-9.4
Jasper	309,889	484	3,107	3,377	6,484	47.8	13.4	-3.9
Kershaw	360,485	563	3,187	2,989	6,176	58.4	11.0	-26.2
Lancaster	266,382	416	2,977	3,341	6,318	42.2	15.2	-19.5
Laurens	317,916	497	3,689	4,055	7,744	41.1	15.6	-25.7
Lee	220,106	344	1,994	2,112	4,107	53.6	11.9	-9.4
Lexington	280,742	439	1,206	613	1,819	154.3	4.1	-25.7
McCormick	212,021	331	2,425	2,162	4,587	46.2	13.8	1.1
Marion	216,907	339	2,356	2,334	4,690	46.2	13.8	5.4
Marlboro	281,271	439	1,808	1,340	3,149	89.3	7.2	-28.3
Newberry	317,761	497	3,195	3,101	6,296	50.5	12.7	-40.6
Oconee	284,348	444	505	382	886	320.8	2.0	-36.0
Orangeburg	504,516	788	5,788	6,062	11,850	42.6	15.0	-1.7
Pickens Pickens	219,926	344	973	453	1,426	154.2	4.2	34.0
Richland	340,121	531	2,714	2,309	5,023	67.7	9.5	-8.2
Saluda	192,173	300	2,017	1,638	3,654	52.6	12.2	-39.2
Spartanburg	265,939	416	2,108	2,359	4,467	59.5	10.8	-2.7
Sumter	338,968	530	2,271	2,373	4,644	73.0	8.8	-18.5
Union	258,111	403	4,065	3,916	7,982	32.3	19.8	-6.1
Williamsburg	513,851	803	4,416	4,594	9,011	57.0	11.2	-17.9
York	276,650	432	1,941	2,022	3,963	69.8	9.2	-35.4
Total	14,028,896	21,920	126,550	124,655	251,205	74.8	12.0	-33.4 - 8.1
95% Confiden			(+ -) 3,583	(+ -) 3,848	(+ -) 6,232	/4.0	12.0	-0.1

^{*} Acreage shown represents the acreage of forested land and acreage of row crops considered to be significant deer habitat within each county. 15

Table 2. County rankings based on deer harvested per unit area in South Carolina in 2004.

County	Buck Harvest	Doe Harvest	Total Harvest	Harvest Ac/Deer	Rates Deer/Mi. ²	2,004 Rank	2,003 Rank	% Change from 2003
Bamberg	4,345	4,564	8,910	22.1	29.0	1	4	33.2
Allendale	4,261	4,762	9,023	24.0	26.7	2	2	11.7
Abbeville	3,586	3,756	7,341	30.4	21.1	3	11	12.1
Union	4,065	3,916	7,982	32.3	19.8	4	6	-6.1
Hampton	4,745	4,665	9,410	34.5	18.5	5	9	-1.8
Fairfield	4,809	6,085	10,894	35.3	18.1	6	3	-18.7
Chester	3,984	4,331	8,315	36.1	17.7	7	1	-26.4
Cherokee	2,051	2,135	4,186	37.4	17.1	8	12	-4.9
Beaufort	1,268	2,368	3,637	40.5	15.8	9	26	23.4
Laurens	3,689	4,055	7,744	41.1	15.6	10	7	-25.7
Lancaster	2,977	3,341	6,318	42.2	15.2	11	9	-19.5
Orangeburg	5,788	6,062	11,850	42.6	15.0	12	15	-1.7
Anderson	2,730	2,398	5,128	42.7	15.0	12	31	44.3
Barnwell	3,056	3,090	6,145	45.9	14.0	14	18	-3.5
McCormick	2,425	2,162	4,587	46.2	13.8	15	23	1.1
Marion	2,356	2,334	4,690	46.2	13.8	15	40	5.4
Greenwood	2,139	2,222	4,361	46.9	13.7	17	13	-18.4
Jasper	3,107	3,377	6,484	47.8	13.4	18	21	-3.9
Colleton	5,565	4,750	10,315	48.7	13.1	19	29	20.8
Calhoun	2,254	1,655	3,909	48.8	13.1	19	13	-21.4
Newberry	3,195	3,101	6,296	50.5	12.7	21	5	-40.6
Saluda	2,017	1,638	3,654	52.6	12.2	22	8	-39.2
Charleston	2,600	2,826	5,426	53.2	12.0	23	27	-3.9
Lee	1,994	2,112	4,107	53.6	11.9	24	25	-9.4
Edgefield	2,629	1,913	4,542	54.3	11.8	25	19	-18.3
Williamsburg	4,416	4,594	9,011	57.0	11.2	26	22	-17.9
Kershaw	3,187	2,989	6,176	58.4	11.0	27	17	-26.2
Spartanburg	2,108	2,359	4,467	59.5	10.8	28	28	-2.7
Clarendon	2,445	2,524	4,969	60.0	10.7	28	16	-28.8
Aiken	4,102	3,677	7,779	64.3	9.9	30	36	29.6
Richland	2,714	2,309	5,023	67.7	9.5	31	32	-8.2
Florence	2,435	3,231	5,666	70.2	9.1	32	33	-7.5
Dorchester	2,425	1,852	4,277	70.8	9.0	33	34	4.3
Sumter	2,271	2,373	4,644	73.0	8.8	34	30	-18.5
Chesterfield	2,856	2,183	5,039	73.9	8.7	35	37	13.9
Georgetown	2,091	2,531	4,623	86.5	7.4	36	38	16.6
Marlboro	1,808	1,340	3,149	89.3	7.2	37	24	-28.3
Berkeley	3,138	2,505	5,642	100.6	6.4	38	35	-18.9
Dillon	785	699	1,485	144.2	4.4	38	41	1.6
Pickens	973	453	1,426	154.2	4.2	40	44	34.0
Lexington	1,206	613	1,420	154.3	4.1	40	39	-25.7
Horry	2,009	1,261	3,270	163.1	3.9	42	42	-9.4
Darlington	801	677	1,478	193.7	3.3	43	46	42.2
Greenville	697	463			2.5	43	43	
			1,160	253.6				-34.2
Oconee	505	382	886	320.8	2.0	45	44	-36.0
York	1,941	2,022	3,963	69.8	9.2	46	20	-35.4
Total	126,550	124,655	251,205	74.8	12.0	NA	NA	-8.1

Table 3. County rankings based upon total deer harvest in South Carolina in 2002.

County	Buck Harvest	Doe Harvest	Total Harvest	Harvest Ac/Deer	Rates Deer/Mi. ²	2,004 Rank	2,003 Rank	% Change from 2003
Orangeburg	5,788	6,062	11,850	42.6	15.0	1	2	-1.7
Fairfield	4,809	6,085	10,894	35.3	18.1	2	1	-18.7
Colleton	5,565	4,750	10,315	48.7	13.1	3	8	20.8
Hampton	4,745	4,665	9,410	34.5	18.5	4	7	-1.8
Allendale	4,261	4,762	9,023	24.0	26.7	5	11	11.7
Williamsburg	4,416	4,594	9,011	57.0	11.2	6	4	-17.9
Bamberg	4,345	4,564	8,910	22.1	29.0	7	16	33.2
Chester	3,984	4,331	8,315	36.1	17.7	8	3	-26.4
Union	4,065	3,916	7,982	32.3	19.8	9	9	-6.1
Aiken	4,102	3,677	7,779	64.3	9.9	10	22	29.6
Laurens	3,689	4,055	7,744	41.1	15.6	11	6	-25.7
Abbeville	3,586	3,756	7,341	30.4	21.1	12	17	12.1
Jasper	3,107	3,377	6,484	47.8	13.4	13	15	-3.9
Lancaster	2,977	3,341	6,318	42.2	15.2	14	12	-19.5
Newberry	3,195	3,101	6,296	50.5	12.7	15	5	-40.6
Kershaw	3,187	2,989	6,176	58.4	11.0	16	10	-26.2
Barnwell	3,056	3,090	6,145	45.9	14.0	17	18	-3.5
Florence	2,435	3,231	5,666	70.2	9.1	18	20	-7.5
Berkeley	3,138	2,505	5,642	100.6	6.4	19	14	-18.9
Charleston	2,600	2,826	5,426	53.2	12.0	20	24	-3.9
Anderson	2,730	2,398	5,128	42.7	15.0	21	38	44.3
Chesterfield	2,730	2,398	5,039	73.9	8.7	22	32	13.9
	 		- 	67.7	9.5	23	26	-8.2
Richland	2,714	2,309	5,023				_	
Clarendon	2,445	2,524	4,969	60.0	10.7	24	13	-28.8
Marion	2,356	2,334	4,690	46.2	13.8	25	30	5.4
Sumter	2,271	2,373	4,644	73.0	8.8	26	23	-18.5
Georgetown	2,091	2,531	4,623	86.5	7.4	27	36	16.6
McCormick	2,425	2,162	4,587	46.2	13.8	28	34	1.1
Edgefield	2,629	1,913	4,542	54.3	11.8	29	25	-18.3
Spartanburg	2,108	2,359	4,467	59.5	10.8	30	29	-2.7
Greenwood	2,139	2,222	4,361	46.9	13.7	31	27	-18.4
Dorchester	2,425	1,852	4,277	70.8	9.0	32	35	4.3
Cherokee	2,051	2,135	4,186	37.4	17.1	33	33	-4.9
Lee	1,994	2,112	4,107	53.6	11.9	34	31	-9.4
York	1,941	2,022	3,963	69.8	9.2	35	19	-35.4
Calhoun	2,254	1,655	3,909	48.8	13.1	36	28	-21.4
Saluda	2,017	1,638	3,654	52.6	12.2	37	21	-39.2
Beaufort	1,268 2,009	2,368	3,637	40.5 163.1	15.8 3.9	38	39	23.4 -9.4
Horry Marlboro	1,808	1,261 1,340	3,270	89.3	7.2	40	41	-9.4
Lexington	1,206	613	1,819	154.3	4.1	41	40	-28.3
Dillon	785	699	1,485	144.2	4.4	42	43	1.6
Darlington	801	677	1,478	193.7	3.3	43	46	42.2
Pickens	973	453	1,426	154.2	4.2	44	45	34.0
Greenville	697	463	1,160	253.6	2.5	45	42	-34.2
Oconee	505	382	886	320.8	2.0	46	44	-36.0
Total	126,550	124,655	251,205	74.8	12.0	NA	NA	-8.1

Table 4. Estimated deer harvest on Wildlife Management Areas in South Carolina in 2004.

Area	Acreage	Bucks	Does	Total	Deer/Mi. ²
Mountain Hunt Unit	193,566	550	317	867	2.9
Central Piedmont Hunt Unit	159,793	2,056	2,088	4,144	16.6
Western Piedmont Hunt Unit	119,077	1,191	1,033	2,224	12.0
Subtotal for Upstate WMA's	472,436	3,797	3,438	7,235	9.8
Coastal WMA's*					
Bear Island WMA	1,519	17	19	36	15.2
Crackerneck WMA	10,470	45	38	83	5.1
Cross Generating Station WMA	654	13	19	32	31.3
Donnelley WMA	8,048	23	31	54	4.3
Edisto River WMA	1,400	1	0	1	0.5
Francis Marion WMA	252,578	312	260	572	1.5
Hickory Top WMA	1,836	2	8	10	3.5
Manchester State Forest WMA	16,000	63	74	137	5.5
Moultrie WMA	9,480	24	38	62	4.2
Oak Lea WMA	2,000	3	12	15	4.8
Palachucola WMA	5,947	39	32	71	7.6
Santee Coastal Reserve WMA	5,000	7	6	13	1.7
Santee Cooper WMA	1,928	18	29	47	15.6
Santee State Park WMA	2,500	14	18	32	8.2
Tillman Sand Ridge WMA	952	2	2	4	2.7
Victoria Bluff WMA	800	5	9	14	11.2
Webb Wildlife Center WMA	5,866	40	75	115	12.5
Subtotal for Coastal WMA's	326,978	628	670	1,298	2.5
Total	799,414	4,425	4,108	8,533	6.8

^{*} Check Station Data

Table 5. Hunter opinion (percent) regarding the number of deer in the area hunted most often in South Carolina in 2004 compared to previous years.

	Increasing	About the Same	Decreasing
Residents	18.3*	51.6	30.1*
Non-Residents	13.0	51.3	35.7
Overall	17.4	51.5	31.1

^{*} Significant difference in hunter perception of deer herd based on residency.

Table 6. Resident deer hunter and deer harvest statistics in South Carolina in 2004.

County	Number Hunters	Man/Days Hunted	Percent Success	Deer/ Hunter	Days/ Deer	Buck Harvest	Doe Harvest	Total Harvest
Abbeville	4,247	71,863	78.0	1.66	10.19	3,447	3,607	7,053
Aiken	4,764	86,376	71.6	1.46	12.42	3,705	3,250	6,955
Allendale	2,376	34,823	79.8	1.79	8.18	1,810	2,450	4,259
Anderson	3,976	65,094	69.3	1.28	12.74	2,720	2,388	5,108
Bamberg	3,040	56,561	80.6	2.19	8.51	3,065	3,582	6,647
Barnwell	2,179	41,002	79.1	2.21	8.50	2,351	2,474	4,825
Beaufort	1,268	20,262	79.6	2.36	6.77	1,268	1,723	2,991
Berkeley	3,102	58,335	70.6	1.73	10.89	2,979	2,376	5,355
Calhoun	2,302	46,184	75.4	1.68	11.91	2,253	1,625	3,877
Charleston	3,040	47,516	74.1	1.77	8.85	2,560	2,807	5,367
Cherokee	1,366	27,265	79.3	2.54	7.85	1,723	1,748	3,471
Chester	3,003	49,200	77.5	1.86	8.82	2,634	2,942	5,576
Chesterfield	1,994	41,593	71.6	2.23	9.36	2,499	1,945	4,444
Clarendon	2,302	36,804	77.5	2.13	7.51	2,425	2,474	4,899
Colleton	4,308	75,813	72.0	1.97	8.95	4,444	4,025	8,469
Darlington	1,403	19,818	70.2	0.98	14.37	751	628	1,379
Dillon	862	13,848	78.6	1.70	9.45	775	689	1,465
Dorchester	2,216	40,658	73.9	1.89	9.69	2,376	1,822	4,197
Edgefield	3,213	48,818	73.2	1.22	12.43	2,302	1,625	3,927
Fairfield	5,355	79,012	73.3	1.72	8.58	3,976	5,231	9,207
Florence	2,647	49,866	74.0	2.09	9.02	2,376	3,151	5,527
Georgetown	2,105	40,092	80.1	2.09	9.12	1,933	2,462	4,394
Greenville	1,440	13,713	68.4	0.74	12.80	628	443	1,071
Greenwood	2,425	34,061	73.6	1.63	8.59	1,920	2,043	3,964
Hampton	2,423	38,160	79.3	1.73	8.27	2,105	2,511	4,616
Horry	1,773	35,439	76.4	1.73	11.07	1,969	1,231	3,200
Jasper	1,674	29,591	84.6	2.40	7.37	1,846	2,166	4,013
Kershaw	2,659	40,991	78.2	1.99	7.74	2,720	2,573	5,293
Lancaster	2,130	39,328	80.3	2.32	7.74	2,720	2,647	4,948
Laurens	4,259	62,544	74.5	1.69	8.70	3,471	3,717	7,188
Lee	2,117	40,621	76.1	1.09	9.94	1,994	2,093	4,087
Lexington	1,933	22,625	70.1	0.94	12.50	1,206	603	1,809
McCormick McCormick	2,794	33,975	76.2	1.40	8.71	2,117	1,785	3,902
Marion	1,649	33,973	82.1		7.52			
			75.8	2.81	11.74	2,326 1,650	2,314 1,182	4,641 2,831
Marlboro	1,477	33,235		1.92		2,917	-	
Newberry	3,742	54,028	72.3 56.8	1.56	9.28		2,902	5,820
Oconee	1,453	15,128		0.61	17.07	505	382 5 268	10.401
Orangeburg	5,293	85,133	79.5	1.97	8.18	5,133	5,268	10,401
Pickens	1,588	16,408	66.7	0.86	12.01	923	2 280	1,366
Richland	3,188	52,808	75.7	1.54	10.73	2,634	2,289	4,924
Saluda	2,462	36,140	75.5	1.44	10.19	1,957	1,588	3,545
Spartanburg	2,856	42,283	72.4	1.53	9.70	2,019	2,339	4,358
Sumter	2,548	39,994	80.2	1.67	9.42	2,142	2,105	4,247
Union	3,299	49,051	80.5	1.93	7.71	3,311	3,053	6,364
Williamsburg	3,545	62,493	80.2	2.34	7.53	4,099	4,197	8,296
York	2,117	31,955	70.3	1.46	10.34	1,514	1,576	3,090
Total	122,158	1,995,401	72.5	1.75	9.31	107,780	106,473	214,253
% Change from 2003	-2.7	-6.7	-3.7	-7.4	1.2	-8.6	-11.6	-10.1

Table 7. Non-resident hunter and deer harvest statistics in South Carolina in 2004.

County	Number Hunters	Man/Days Hunted	Percent Success	Deer/ Hunter	Days/ Deer	Buck Harvest	Doe Harvest	Total Harvest
Abbeville	169	1,846	70.6	1.71	6.41	139	149	288
Aiken	546	6,878	72.7	1.51	8.35	397	427	824
Allendale	1,886	32,683	82.1	2.53	6.86	2,451	2,312	4,764
Anderson	30	169	66.7	0.67	8.50	10	10	20
Bamberg	943	17,070	84.2	2.40	7.54	1,280	983	2,263
Barnwell	744	10,917	70.7	1.77	8.27	705	615	1,320
Beaufort	268	3,196	88.9	3.37	4.95	0	645	646
Berkeley	179	2,620	55.6	1.61	9.10	159	129	288
Calhoun	69	576	71.4	0.86	18.26	2	30	32
Charleston	89	754	66.7	0.67	12.67	40	20	60
Cherokee	238	4,486	91.7	3.00	6.28	328	387	715
Chester	1,260	21,140	81.1	2.17	7.72	1,350	1,390	2,739
Chesterfield	397	6,709	75.0	1.50	11.27	357	238	595
Clarendon	69	576	57.1	1.00	8.29	20	50	69
Colleton	804	16,068	88.9	2.30	8.70	1,122	724	1,846
Darlington	69	427	71.4	1.43	4.30	50	50	99
Dillon	20	546	100.0	1.00	27.50	10	10	20
Dorchester	89	893	77.8	0.89	11.25	50	30	79
Edgefield	288	4,387	82.8	2.14	7.13	328	288	615
Fairfield	933	12,635	75.5	1.81	7.49	834	854	1,687
Florence	89	645	77.8	1.56	4.64	60	79	139
Georgetown	109	873	90.1	2.09	3.83	159	69	228
Greenville	60	566	100.0	1.50	6.33	69	20	89
Greenwood	169	2,412	88.2	2.35	6.08	218	179	397
Hampton	2,144	39,113	81.9	2.24	8.16	2,640	2,154	4,794
Horry	60	586	66.7	1.17	8.43	40	30	69
Jasper	784	17,765	79.9	3.15	7.19	1,260	1,211	2,471
Kershaw	437	5,994	79.5	2.02	6.79	466	417	883
Lancaster	665	9,657	79.1	2.06	7.05	675	695	1,370
Laurens	218	2,511	77.3	2.55	4.52	218	337	556
Lee	60	407	66.7	0.33	20.50	0	20	20
Lexington	20	40	100.0	0.50	4.00	0	10	10
McCormick	169	3,781	64.7	1.88	11.91	159	159	318
Marion	437	6,977	75.0	1.57	10.19	308	377	685
Marlboro	20	218	100.0	2.50	4.40	30	20	50
Newberry	298	3,831	83.3	1.60	8.04	278	199	476
Oconee	20	268	100.0	0.00	0.00	0	0	0
Orangeburg	536	9,518	88.9	2.70	6.57	655	794	1,449
Pickens	89	824	66.7	0.67	13.83	50	10	60
Richland	119	1,012	66.7	0.83	10.20	79	20	99
Saluda	79	913	75.0	1.38	8.36	60	50	109
Spartanburg	89	863	88.9	1.22	7.91	89	20	109
Sumter	99	2,015	100.0	4.00	5.08	129	268	397
Union	734	13,091	82.4	2.20	8.09	754	863	1,618
Williamsburg	189	2,829	84.2	3.79	3.96	318	397	715
York	496	8,575	84.0	1.76	9.82	427	447	873
	1							
TOTAL	17,279	279,858	78.1	2.16	7.57	18,770	18,182	36,952
% Change from 2003	-7.8	1.6	19.2	15.5	-3.6	5.1	5.5	5.3

Table 8. Hunting effort (man/days) by county for successful and unsuccessful resident and non-resident deer hunters in South Carolina in 2004.

County		dents (man/da	• .	Total Effort		esidents (man/		Total Effort	Total
	Successful	Unsuccessful	Average	Residents	Successful	Unsuccessful	Average	Non-residents	Days
Abbeville	21.7	9.5	16.9	71,863	13.0	8.0	10.9	1,846	73,927
Aiken	26.8	8.0	18.1	86,376	17.5	6.3	12.6	6,878	93,891
Allendale	19.9	8.0	14.7	34,823	20.0	8.5	17.3	32,683	69,628
Anderson	21.7	9.6	16.4	65,094	7.0	3.0	5.7	169	65,311
Bamberg	24.1	8.2	18.6	56,561	19.9	9.7	18.1	17,070	74,717
Barnwell	25.4	6.6	18.8	41,002	17.8	7.6	14.7	10,917	52,779
Beaufort	20.7	8.3	16.0	20,262	13.9	3.4	11.9	3,196	23,782
Berkeley	26.5	8.4	18.8	58,335	23.3	3.9	14.7	2,620	61,194
Calhoun	28.6	7.6	20.1	46,184	11.7	5.8	8.3	576	46,862
Charleston	22.1	7.1	15.6	47,516	11.8	5.8	8.4	754	48,394
Cherokee	24.3	12.3	20.0	27,265	20.1	10.0	18.8	4,486	32,062
Chester	21.1	8.1	16.4	49,200	19.3	10.1	16.8	21,140	71,774
Chesterfield	26.8	11.3	20.9	41,593	17.5	15.8	16.9	6,709	48,790
Clarendon	22.3	5.7	16.0	36,804	15.0	5.6	8.3	576	37,485
Colleton	23.9	8.7	17.6	75,813	22.8	10.9	20.0	16,068	92,820
Darlington	20.7	9.0	14.1	19,818	6.5	5.7	6.1	427	20,340
Dillon	19.9	7.8	16.1	13,848	35.0	20.0	27.5	546	14,498
Dorchester	26.8	7.3	18.4	40,658	11.0	8.8	10.0	893	41,679
Edgefield	20.2	9.0	15.2	48,818	15.9	13.5	15.2	4,387	53,566
Fairfield	19.1	8.1	14.8	79,012	15.8	9.9	13.5	12,635	92,713
Florence	25.1	8.6	18.8	49,866	8.9	1.5	7.2	645	50,627
Georgetown	26.7	6.3	19.0	40,092	9.8	3.3	8.0	873	41,107
Greenville	14.1	6.3	9.5	13,713	12.8	3.0	9.5	566	14,369
Greenwood	19.3	7.1	14.0	34,061	18.3	4.6	14.3	2,412	36,695
Hampton	19.8	5.8	14.3	38,160	21.2	9.5	18.2	39,113	79,681
Horry	27.5	8.9	20.0	35,439	18.0	1.7	9.8	586	36,119
Jasper	21.7	7.4	17.7	29,591	26.1	10.2	22.7	17,765	48,278
Kershaw	20.3	7.0	15.4	40,991	18.1	6.7	13.7	5,994	47,505
Lancaster	23.3	8.3	18.5	39,328	17.8	7.4	14.5	9,657	49,756
Laurens	19.7	8.0	14.7	62,544	14.8	6.7	11.5	2,511	65,328
Lee	25.8		19.2	40,621	7.0	6.8	6.8	407	
Lexington	17.5	7.3	11.7	22,625	2.0	2.0	2.0	40	22,692
McCormick	17.3	5.9	12.2	33,975	19.0	11.6	16.0	6,977	41,479
Marion	25.8	6.8	21.2	34,897	20.0	2.0	11.0	218	35,171
Marlboro	27.5	11.8	22.5	33,235	31.5	9.4	22.4	3,781	37,266
Newberry	19.2	7.8	14.4	54,028	18.1	6.0	12.9	3,831	58,223
Oconee	15.6	7.9	10.4	15,128	0	13.5	13.5	268	15,445
Orangeburg	22.1	6.1	16.1	85,133	21.0	6.6	17.8	9,518	95,286
Pickens	16.0	5.8	10.3	16,408	13.6	3.8	9.2	824	17,356
Richland	23.6	8.2	16.6	52,808	11.0	6.0	8.5	1,012	53,977
Saluda	20.4	7.1	14.7	36,140	19.3	3.8	11.5	913	37,175
Spartanburg	20.4	7.1	14.8	42,283	13.5	2.0	9.7	863	43,269
Sumter	20.3	7.0	15.7	39,994	22.1	4.0	20.3	2,015	42,164
Union	18.9	7.1	14.9	49,051	19.9	10.3	17.8	13,091	62,998
Williamsburg	23.5	6.5	17.6	62,493	18.9	4.0	15.0	2,829	65,567
York	21.3	7.8	15.1	31,955	19.8	10.7	17.3	8,575	41,124
Total	22.2	7.8	16.4	1,995,401	19.6	8.6	16.2	279,858	2,275,259
% Change		7.0	10.7	1,770,701	17.0	0.0	10.2	217,030	<u> </u>
from 2003	15.0	-19.7	-4.1	-6.7	16.7	10.2	10.2	1.60	-5.7

Table 9. Estimated deer harvest by weapon type in South Carolina in 2004.

	Rifle	Bow & Arrow	Shotgun	Muzzle- loader	Crossbow	Handgun	Total
Number of Deer Harvested	200,436	12,937	26,751	9,089	660	1,332	251,205
Percent Total Deer Harvest	79.8	5.2	10.6	3.6	0.26	0.53	100.0
Percent Hunters Taking Deer With Weapon	56.5	5.7	9.9	5.9	0.3	0.8	NA*

^{*} Total is not applicable because individual hunters take deer with multiple weapons.

Table 10. Number of hunters using each type of weapon in South Carolina in 2004.

	Rifle	Bow & Arrow	Shot- gun	Muzzle- loader	Crossbow	Handgun
Residents	113,607	27,852	43,366	22,111	1,710	6,597
Non-Residents	16,571	2,730	3,145	4,389	242	760
Total	130,178	30,582	46,511	26,499	1,952	7,357

^{*} Total across weapons not given because hunters use multiple weapons. Total hunters = 139,437.

Table 11. Weapons utilization (percent) among deer hunters in South Carolina in 2004.

	Rifle	Bow & Arrow	Shotgun	Muzzle- loader	Crossbow	Handgun
Residents	93.0	22.8*	35.5*	18.1*	1.4	5.4
Non-Residents	95.8	15.8	18.2	25.4	1.4	4.4
Total	93.5	21.6	32.4	19.4	1.4	5.2

^{*} Significant difference in weapons use category based on residency.

Table 12. Weapons preference (percent) among deer hunters in South Carolina in 2004.

	Rifle	Bow & Arrow	Shotgun	Muzzle- loader	Crossbow	Handgun	Total
Residents	78.2*	10.6*	9.0*	1.4*	0.2	0.6	100.0
Non-Residents	85.2	7.5	3.1	3.1	0.3	0.7	100.0
Total	79.5	10.1	8.0	1.6	0.2	0.6	100.0

^{*} Significant difference in weapons preference category based on residency.

Table 13. Estimated wild hog and coyote harvest by deer hunters in South Carolina in 2004.

County	Hog Harv.	Harv./ Mile ²	% Change from 2003	2004 Rank	2003 Rank	Coyote Harv.	Harv./ Mile ²	% Change from 2003	2004 Rank	2003 Rank
Abbeville	723	2.07	32.2	9	11	725	2.08	25.0	8	4
Aiken	1,812	2.32	98.9	7	12	1,737	2.22	97.8	6	15
Allendale	2,371	7.01	26.6	1	1	1,193	3.53	166.9	1	10
Anderson	770	2.25	13.4	8	7	876	2.56	120.1	3	12
Bamberg	393	1.28	58.3	16	16	770	2.51	60.4	4	6
Barnwell	408	0.93	251.5	19	29	680	1.54	128.0	11	23
Beaufort	181	0.79	-8.9	23	14	76	0.33	14.4	42	39
Berkeley	302	0.34	-13.2	30	27	408	0.46	206.6	37	42
Calhoun	1,042	3.50	53.5	2	5	710	2.38	-32.0	5	2
Charleston	695	1.54	199.4	12	24	181	0.40	83.0	40	41
Cherokee	0	0.00	-100.0	44	36	211	0.86	-14.8	22	17
Chester	211	0.45	-61.4	26	12	997	2.12	28.1	7	4
Chesterfield	498	0.86	7.4	21	18	423	0.73	41.9	27	31
Clarendon	634	1.36	155.7	14	21	393	0.84	7.9	24	21
Colleton	830	1.06	-41.0	17	9	529	0.67	3.0	29	24
Darlington	634	1.42	74.2	13	16	91	0.20	81.2	44	44
Dillon	211	0.63	-20.2	24	19	151	0.45	202.0	38	42
Dorchester	770	1.63	-36.3	11	3	317	0.67	27.9	29	29
Edgefield	227	0.59	243.2	25	35	725	1.88	-14.2	9	3
Fairfield	257	0.43	-18.5	27	23	966	1.61	57.7	10	16
Florence	846	1.36	535.8	14	33	76	0.12	-62.1	46	38
Georgetown	664	1.06	29.5	17	15	196	0.12	18.3	43	40
Greenville	121	0.26	141.6	35	38	272	0.51	-8.8	32	24
Greenwood	30	0.20	77.7	41	41	272	0.85	36.6	23	26
Hampton	1,601	3.15	-0.4	4	2	770	1.52	32.8	12	14
Horry	680	0.82	36.7	22	20	121	0.15	83.0	45	45
Jasper	936	1.93	8.7	10	10	362	0.13	-15.9	26	18
Kershaw	513	0.91	72.3	20	22	513	0.73	82.1	20	32
Lancaster	136	0.33	37.3	32	31	438	1.05	-17.4	19	11
Laurens	76	0.33	*	40	44	634	1.03	-8.9	16	9
Lee	60	0.13	255.3	37	43	468	1.36	66.0	14	20
Lexington	121	0.18	22.0	33	32	544	1.24	105.1	17	27
McCormick	91	0.28	433.0	34	42	498	1.50	150.4	13	27
Marion	891	2.63	1,249.9	6	34	242	0.71	-51.4	28	7
Marlboro	166	0.38	-79.1	29	8	242	0.71	45.6	34	36
Newberry	15	0.03	-54.2	43	40	664	1.34	14.6	15	12
Oconee	151	0.03	1.3	30	28	196	0.44	-40.7	39	22
Orangeburg	136	0.34		39	30	876	1.11		18	8
			-31.7					-21.1		34
Pickens Pickland	76 1,827	0.22 3.44	51.0 47.1	36	36	166 423	0.48	0.1 70.5	36 25	35
Richland	1,827	0.05	4/.1 *	42	45	800	2.67	-33.8	23	
Saluda	76	0.03	*		45					37
Spartanburg				37 5	-	242	0.58	62.2	33	
Sumter	1,404	2.65	28.5		6	272	0.51	-3.6	35	29
Union	217	0.00	-100.0	44	39	362	0.90	82.1	21	33
Williamsburg	317	0.40	-8.9	28	25	302	0.38	357.6	41	45
York	15	0.04	-91.7	43	26	272	0.63	-28.7	31	19
Total	23,932	1.09	19.9	NA	NA	22,379	1.02	19.5	NA	NA
	(+ -) 1,379					(+ -) 1,027	J			

95% Confidence Interval for harvest

^{*}No indication of hogs harvested in 2003

Table 14. Number of deer-vehicle collisions reported by the South Carolina Department of Public Safety 2000-2004.

County	2000	2001	2002	2003	2004
Abbeville	48	53	39	16	5
Aiken	101	123	121	57	60
Allendale	23	16	12	12	7
Anderson	49	37	76	32	27
Bamberg	27	32	20	10	13
Barnwell	24	27	30	19	13
Beaufort	125	88	102	73	100
Berkeley	137	96	114	63	52
Calhoun	26	25	16	21	6
Charleston	159	154	121	150	159
Cherokee	78	77	100	12	8
Chester	123	103	90	13	5
Chesterfield	34	24	20	4	4
Clarendon	27	34	33	37	29
Colleton	86	65	94	36	48
Darlington	38	53	47	20	10
Dillon	25	27	25	8	4
Dorchester	122	86	127	91	73
Edgefield	42	45	44	24	22
Fairfield	85	78	61	14	16
Florence	152	139	134	40	27
Georgetown	59	44	32	25	13
Greenville	45	80	116	45	53
Greenwood	154	152	131	42	32
Hampton	25	18	6	19	16
Horry	159	160	144	48	46
Jasper	85	68	84	37	38
Kershaw	108	101	82	22	28
Lancaster	127	96	98	16	18
Laurens	146	158	186	65	59
Lee	25	23	39	21	10
Lexington	75	55	65	60	43
McCormick	48	29	17	13	6
Marion	12	15	26	6	7
Marlboro	34	37	51	8	7
Newberry	107	115	112	33	32
Oconee	14	12	26	10	4
Orangeburg	132	109	45	53	35
Pickens	26	27	37	20	17
Richland	130	74	72	75	83
Saluda	62	71	59	18	16
Spartanburg	119	144	186	86	68
Sumter	101	94	95	44	37
Union	43	46	23	10	10
Williamsburg	79	79	65	28	18
York	130	137	151	29	17
Total	3,576	3,326	3,374	1,585	1,401

Table 15. Average live body weights of deer from South Carolina counties, based on historic data.

		Males		Females					
COUNTY	1 5 Ve	ars Old	2.5+ V	ears Old	1.5 Years Old 2.5+ Years Old				
COUNTI	N	Avg. Wt.	N	Avg. Wt.	N	Avg. Wt.	N N	Avg. Wt.	
Abbeville	1,390	111.7	484	145.9	466	90.4	747	102.7	
Aiken	2,667	121.6	1,485	162.6	808	94.9	1,522	109.6	
Allendale	6,175	108.9	3,333	146.0	2,503	87.7	5,606	100.8	
Anderson	30	121.9	17	148.1	4	92.5	8	113.0	
Bamberg	2,414	111.9	1,113	142.4	884	91.4	1,721	103.9	
Barnwell	1,478	119.1	695	156.6	601	94.3	1,071	106.9	
Beaufort	952	101.6	1,236	135.2	690	86.7	1,818	99.8	
Berkeley	3,162	100.6	4,198	127.3	1,086	83.4	3,991	97.2	
Calhoun	1,588	110.2	633	144.1	312	91.4	943	104.6	
Charleston	1,256	97.9	2,088	123.3	422	83.3	1,581	95.8	
Cherokee	1,230	80.0	2,000	139.0	9	77.8	26	89.6	
Chester	1,445	105.9	963	140.1	470	87.4	1,091	99.4	
Chesterfield	79	119.4	140	152.5	27	93.5	1,128	99.4	
Clarendon	13	101.3	29	152.5	42	89.6	1,128 87	103.0	
Colleton	5,822	101.5	6,908	135.5	3,279	87.9	8,920	100.4	
Darlington	334	113.6	273	153.3	216	92.8	573	105.2	
Dillon	74	112.8	46	138.5	13	92.8	50 50	103.2	
Dorchester	1,868	107.2	2,205	137.0	653	88.0	2,055	103.9	
	556		334		159	1	306	96.9	
Edgefield	1	100.9		133.4		84.6			
Florence	2,048	102.1	1,444	136.5	761	86.3	2,021 621	99.2	
Florence	696	110.8	459	139.2	198	89.6		102.8	
Georgetown	1,881	98.7	2,281	126.1	668	85.6	1,961	97.6	
Greenville Greenwood	<u> </u>	122.1	9 527	149.9		79.3	16	98.4	
	1,158	111.4	537 4,710	145.1	313	90.2 87.2	629	103.0	
Hampton	6,103	106.7		140.0	3,034		7,236	100.5	
Horry	302	96.1	311	126.1	129	79.2	<u>301</u>	91.3	
Jasper	3,385	101.8	4,691	135.4	2,142	84.6	5,948	96.9	
Kershaw	603	108.9	588	144.6	251	89.6	758	102.9	
Lancaster	472	113.1	246	153.3	213	91.4	441	105.2	
Laurens	240	104.7	181	132.9	107	87.3	238	96.9	
Lee	472	119.6	187	151.3	162	96.6	330	108.5	
Lexington	20	120.8	9	164.8	6	101.3	1.745	115.8	
McCormick	2,354	101.5	1,056	134.5	877	85.3	1,745	97.3	
Marion	690	108.5	501	138.7	256	88.6	630	98.7	
Marlboro	106	115.0	62	149.8	30	95.0	70	107.8	
Newberry	143	97.1	100	135.6	85	86.0	171	92.7	
Oconee	74	113.1	58	152.6	33	85.3	39	99.6	
Orangeburg	2,293	112.5	1,375	145.0	686	90.8	1,684	103.4	
Pickens	1 220	109.1	41	145.4	18	79.9	1 970	100.5	
Richland	1,320	106.1	1,274	145.2	651	92.7	1,879	106.3	
Saluda	100	115.8	40	148.0	25	93.6	34	105.2	
Spartanburg	34	109.3	22	142.2	13	95.0	31	98.8	
Sumter	666	111.3	353	142.1	188	94.4	509	105.3	
Union	958	101.7	608	135.8	439	87.9	761	97.8	
Williamsburg	469	112.5	559	143.3	150	91.4	478	106.0	
York	13	96.9	30	143.9	20	78.7	41	93.9	
Total	57,958	107.3	47,913	137.9	24,106	88.0	61,879	100.6	

Table 16. Antler characteristics of male deer from South Carolina counties, based on historic data.

	1	.5 Years Ol	d Males	2.5	5+ Years O	% 1.5 Bucks in	
COUNTY	Number	Percent	Outside	Number	Percent	Outside	Antlered Harvest
	Points	Spikes	Spread	Points	Spikes	Spread	
Abbeville	4.2	32		7.2	2		74
Aiken	4.4	28	8.7	7.4	1	14.7	64
Allendale	4.0	36	7.7	7.2	3	13.7	65
Anderson	4.7	28		6.8	0		63
Bamberg	4.0	34	7.6	6.7	4	12.5	68
Barnwell	4.6	21	8.7	7.1	2	13.9	68
Beaufort	3.1	58	7.4	6.4	9	13.0	44
Berkeley	3.0	62	6.6	5.8	12	11.5	43
Calhoun	4.0	33	7.4	7.0	3	13.2	72
Charleston	2.8	69	6.2	5.4	15	10.6	38
Cherokee				7.0	0		50
Chester	3.4	47	8.7	6.7	4	13.9	61
Chesterfield	4.5	21	8.6	7.2			61
Clarendon	2.8	58	6.2	7.7	3	12.9	31
Colleton	3.3	50	6.9	6.4	7	11.7	46
Darlington	3.1	57	7.4	6.7	5	13.7	55
Dillon	3.2	54	8.1	5.7	9	11.6	62
Dorchester	3.3	53	6.6	6.0	9	11.1	46
Edgefield	3.3	50		6.6	5		63
Fairfield	3.1	55	7.5	6.4	6	13.8	59
Florence	3.4	47	7.4	6.1	9	12.1	60
Georgetown	2.8	65	6.6	5.6	13	11.0	45
Greenville	4.7	14		7.6	0		44
Greenwood	3.9	34		6.7	3		68
Hampton	3.9	39	7.7	6.9	4	13.0	56
Horry	3.0	58	6.8	6.2	8	12.1	49
Jasper	3.3	52	7.0	6.6	6	12.8	42
Kershaw	3.6	47	7.7	6.9	7	12.3	51
Lancaster	4.3	27	6.7	7.4	0	15.0	66
Laurens	3.2	53	6.7	6.0	10	13.7	57
Lee	4.3	25	8.4	6.7	2	12.9	72
Lexington	4.1	30	9.1	7.3	0	15.7	69
McCormick	3.5	47		6.8	4		69
Marion	3.3	52	7.3	6.2	10	12.4	58
Marlboro	3.1	53	7.0	6.4	10	12.6	63
Newberry	2.8	54		6.3	8	13.3	59
Oconee	3.4	52		7.3	3		56
Orangeburg	3.8	38	7.6	6.8	5	12.6	63
Pickens	4.0	43		7.2	2		53
Richland	3.3	52	7.3	6.8	5	13.5	51
Saluda	4.0	32	9.0	6.9	0	10.8	71
Spartanburg	4.0	33	6.1	7.1	0		61
Sumter	3.7	41	7.7	6.6	5	12.5	65
Union	3.3	51	7.2	6.6	5	13.6	61
Williamsburg	3.6	43	7.6	6.8	5	12.6	46
York	3.1	60	5.3	7.4	0	13.3	30
Total	3.6	44	7.4	6.5	7	12.4	55

Figure 1. South Carolina Department of Natural Resources 2004 Big Game Hunter Survey.

	2004 South	Caro	lina Big Gam	ne Survey	r		
1. Did you hunt deer in SO If you answered No to	C this past seaso this question plo	on (20 ease g	004)? go to question	# 8.	1. Yes	2. N	lo
2. Did you harvest any de	er in SC this pa	st sea	son?		1. Yes	2. N	Vo.
3. Even if you did not hat number of days hunted hunted the most. If you county. A day of hunt ranges (i.e. 5-10), rathe - not friends, relatives,	in each county harvested deer ing is defined a r provide absolu	this pleases any are nu	past season (2) se record the not portion of the limbers (i.e. 5).	004). <u>Plea</u> number of e day spe	ase begin bucks an ent afield.	with the county d does taken in Please do not	y yo i eac t giv
Counties You Deer	r Hunted	# I	Days Hunted	Num	ber Deer	Harvested	
1	l			# Bucks	#	Does	
2	***************************************			# Bucks	#	Does :	
3				# Bucks	#	Does	
4				# Bucks	. #	Does	
Please record the numb	er of deer taken	with	each weanon	last seaso	on (2004)		
Rifle Bow	Shotgun		luzzleloader	1	sbow	Handgun	1
1. Rifle 2. Bow 6. Please circle the one will be will	3. Shotgun 4, how would yo 2. A 4 sys in SC last sp this question place 4 yest any wild tur	prefe 4 ou des about ring? ease p	. Muzzleloade scribe the num the same	r with. er 5 ber of decentaring, pleas	1. Yes	w 6. Handgurea that you hu 3. Decreasin 2. No	un unt ng
4							
If you harvested a turn If you did not harvest If you harvested any If you did not harvest	any turkeys pleases wild hogs or co	ase g o yotes	o to question in SC in 2004	# 11. 4, please o		2. No the box below.	٠
County	# H		prouse go to q	County	.4.440	# Coyotes	1
1		-0"	1				-
2			2				1
12. Are you a resident of 313. If yes, which county_	SC? 1. Y	es	2. No				T

IMPORTANT DEER & TURKEY RESEARCH

BIG GAME HUNTER SURVEY SCDNR PO BOX 167 COLUMBIA SC 29202-0167

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January, 2005

Dear Sportsman:

White-tailed deer and wild turkeys are two of the most important game species in South Carolina. Therefore, it is important that these species be monitored for population status and harvesting activities. Wildlife resource managers require current and accurate information about deer and turkey harvests to aid in successfully managing these important natural resources and to optimize future hunting potential. To obtain this needed data, the Department of Natural Resources (DNR) is conducting a survey of licensed Big Game Permit holders.

You are one of a group of randomly selected hunters asked to participate in this survey. To draw accurate conclusions it is very important that you complete the survey and return it. Please take time to read each question. Even if you did not hunt deer or turkeys last season please indicate this by answering the appropriate questions and moving on to the next set of questions.

In addition to the questions concerning your deer and turkey hunting activities, there are questions concerning the weapons that you used to harvest deer and questions concerning the number of wild hogs and coyotes that you may have harvested. Not only is this data important to DNR game biologists, many hunters are interested in this type of information so it is important that you answer these questions too.

Please note that complete confidentiality will be given to you. There is no number on your survey form, therefore, there is no way to link your responses to you. Keep in mind that the primary purpose of the survey is to determine the deer and turkey harvest in South Carolina and not to determine whether game laws are observed. By accurately answering the survey questions you will enable DNR biologists to better manage the white-tailed deer and wild turkey resources for you and other citizens of the state.

Please keep in mind that in order to reduce costs, this is the only 2004 Big Game Survey form you will receive. There will be no reminders or second surveys sent to individuals that do not respond to this initial survey. Therefore, it is very important that you take a few minutes to complete this survey and mail it. Return postage is prepaid.

Results of this survey will be posted on the DNR web site once completed (hopefully by June). The results from the 2003 survey can be found at www.dnr.state.sc.us/wild/deer/img/2003DeerHarvestReport.pdf

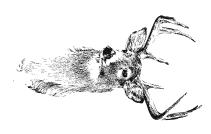
Thank you for your assistance.

Charles Ruth Wildlife Biologist Deer Project Supervisor

PLEASE MAIL YOUR SURVEY AFTER SEPARATING THIS HALF FROM THE SIDE ON WHICH YOUR ANSWERS HAVE BEEN ENTERED. NO POSTAGE IS NECESSARY.

If you have questions regarding this survey, please call 803-734-3886 or write 2004 Big Game Survey, SCDNR, P.O. Box 167, Columbia, SC 29202.

The South Carolina Department of Natural Resources prohibits discrimination on the basis of race, color, sex, national origin, disability, religion or age. Direct all inquiries to the Office of Human Resources, P.O. Box 167, Columbia, SC 29202



BIG GAME HUNTER SURVEY SC DEPARTMENT OF NATURAL RESOURCES PO BOX 167 COLUMBIA SC 29202-9976

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