

Virginia Survey of Hunter Harvest, Effort, and Attitudes

1998-99



**Center for Recreation Resources Policy
George Mason University**

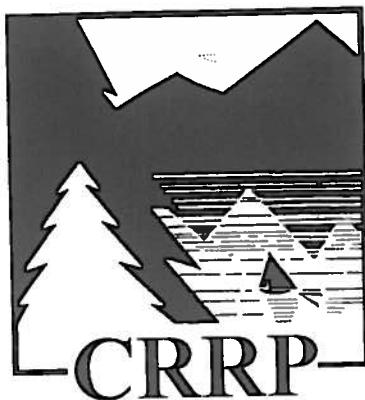
**Virginia Department of Game and Inland Fisheries
January 2000**

Virginia Survey of Hunter Harvest, Effort, and Attitudes 1998-99



Conducted For:

**Virginia Department of Game and Inland Fisheries
Wildlife Division
Richmond, Virginia**



**Center for Recreation Resources Policy
George Mason University
Manassas, Virginia
Brett A. Wright, Director**

January, 2000

Contributors

Brett A. Wright, Ph.D. was the Principal Investigator and is Director of GMU's Center for Recreation Resources Policy.

Neal D. Emerald, Research Associate, Center for Recreation Resources Policy was the Project Director, responsible for day-to-day management, computer applications, and compiled all data into the various tables which illustrate the study.

Crystal Cox, Research Assistant, Center for Recreation Resources Policy and Senior, Recreation Resources Management, assisted with data collection.

Michelle Thomas, Research Assistant, Center for Recreation Resources Policy and Graduate Student, Environmental Science and Public Policy, assisted with data collection.

David E. Steffen, M.S. served as liaison and consultant to the study and is Forest Wildlife Program Manager, Virginia Dept. of Game and Inland Fisheries, Vinton, VA.

Acknowledgments

The authors would like to express their appreciation to the many people who assisted in the conduct of this study. They are: Frances Boswell, Randy Farrar, Jason Fischer, Matt Knox, David Kocka, Dennis Martin, Kim Needham Echols, Sandy Smith, Gary Norman, Ken Perry, Leah Davis Talbott, Bonnie Lockwood, Bob Ellis, and Bob Duncan. We would also like to thank Marilyn Davenport; Robert McFarland of Kwik Kopy Printing in Chantilly, VA; Joanne Murray of Murmack Inc., in Herndon, VA; and Leif Agard of Best Mailing Services in Lynchburg, VA. Without their dedication and perseverance, this study would not have been possible.



This publication was funded in part by funds provided
by
Pittman-Robertson Federal Aid to Wildlife Restoration
Project-WE99R

Table of Contents

	<u>Page</u>
Contributors	ii
List of Tables	iv
Introduction	1
Methods	1
Generation of the Sample	1
Development of Survey Instrument	2
Administration of the Survey	3
Response Rate	3
Results.....	4
References	66
Appendix	67

List of Tables

<u>Table</u>		<u>Page</u>
1	1997-98 Hunting Population and Survey Sample Statistics	2
2	Distribution of Hunting License Holders Among Three License Categories, 1998-99	4
3	Expanded Statewide Summary of the 1998-99 Virginia Survey of Game Harvest Based on 266,585 License Holders	7
4	Expanded Statewide Estimates of Total Harvest (with Standard Errors) for Virginia Game Species During 1998-99	8
5	Expanded Statewide and Regional Summaries of DOVE Hunting in Virginia During the 1998-99 Hunting Season	9
6	Expanded Statewide and Regional Summaries of QUAIL Hunting in Virginia During the 1998-99 Hunting Season	10
7	Expanded Statewide and Regional Summaries of WOODCOCK Hunting in Virginia During the 1998-99 Hunting Season	11
8	Expanded Statewide and Regional Summaries of RUFFED GROUSE Hunting in Virginia During the 1998-99 Hunting Season	12
9	Expanded Statewide and Regional Summaries of CROW Hunting in Virginia During the 1998-99 Hunting Season	13
10	Expanded Statewide and Regional Summaries of RABBIT Hunting in Virginia During the 1998-99 Hunting Season	14

<u>Table</u>		<u>Page</u>
11	Expanded Statewide and Regional Summaries of GRAY SQUIRREL Hunting in Virginia During the 1998-99 Hunting Season	15
12	Expanded Statewide and Regional Summaries of FOX SQUIRREL Hunting in Virginia During the 1998-99 Hunting Season	16
13	Expanded Statewide and Regional Summaries of GROUNDHOG/WOODCHUCK Hunting in Virginia During the 1998-99 Hunting Season	17
14	Expanded Statewide and Regional Summaries of ARCHERY DEER Hunting in Virginia During the 1998-99 Hunting Season	18
15	Expanded Statewide and Regional Summaries of ARCHERY DEER (BUCK) Hunting in Virginia During the 1998-99 Hunting Season	19
16	Expanded Statewide and Regional Summaries of ARCHERY DEER (DOE) Hunting in Virginia During the 1998-99 Hunting Season	20
17	Expanded Statewide and Regional Summaries of MUZZLELOADER DEER Hunting in Virginia During the 1998-99 Hunting Season	21
18	Expanded Statewide and Regional Summaries of MUZZLELOADER DEER (BUCK) Hunting in Virginia During the 1998-99 Hunting Season	22
19	Expanded Statewide and Regional Summaries of MUZZLELOADER DEER (DOE) Hunting in Virginia During the 1998-99 Hunting Season	23
20	Expanded Statewide and Regional Summaries of GUN DEER Hunting in Virginia During the 1998-99 Hunting Season	24

<u>Table</u>		<u>Page</u>
21	Expanded Statewide and Regional Summaries of GUN DEER (BUCK) Hunting in Virginia During the 1998-99 Hunting Season	25
22	Expanded Statewide and Regional Summaries of GUN DEER (DOE) Hunting in Virginia During the 1998-99 Hunting Season	26
23	Expanded Statewide Summary of TOTAL DEER Hunting in Virginia During the 1998-99 Hunting Season	27
24	Expanded Statewide Summary of TOTAL DEER (BUCKS) Hunting in Virginia During the 1998-99 Hunting Season	27
25	Expanded Statewide Summary of TOTAL DEER (DOES) Hunting in Virginia During the 1998-99 Hunting Season	27
26	Expanded Statewide and Regional Summaries of SPRING TURKEY (1998) Hunting in Virginia During the 1998-99 Hunting Season	28
27	Expanded Statewide and Regional Summaries of FALL TURKEY (1998) Hunting in Virginia During the 1998-99 Hunting Season	29
28	Expanded Statewide and Regional Summaries of SPRING TURKEY (1999) Hunting in Virginia During the 1998-99 Hunting Season	30
29	Expanded Statewide and Regional Summaries of BEAR Hunting in Virginia During the 1998-99 Hunting Season	31
30	Expanded Statewide and Regional Summaries of TOTAL DUCK Hunting in Virginia During the 1998-99 Hunting Season	32

<u>Table</u>		<u>Page</u>
31	Expanded Statewide and Regional Summaries of MALLARD DUCK Hunting in Virginia During the 1998-99 Hunting Season	33
32	Expanded Statewide and Regional Summaries of WOOD DUCK Hunting in Virginia During the 1998-99 Hunting Season	34
33	Expanded Statewide and Regional Summaries of BLACK DUCK Hunting in Virginia During the 1998-99 Hunting Season	35
34	Expanded Statewide and Regional Summaries of ALL OTHER DUCK Hunting in Virginia During the 1998-99 Hunting Season	36
35	Expanded Statewide and Regional Summaries of GOOSE: SEPTEMBER Hunting in Virginia During the 1998-99 Hunting Season	37
36	Expanded Statewide and Regional Summaries of GOOSE: NOVEMBER-MARCH Hunting in Virginia During the 1998-99 Hunting Season	38
37	Expanded Statewide and Regional Summaries of RED FOX Hunting in Virginia During the 1998-99 Hunting Season	39
38	Expanded Statewide and Regional Summaries of GRAY FOX Hunting in Virginia During the 1998-99 Hunting Season	40
39	Expanded Statewide and Regional Summaries of COYOTE Hunting in Virginia During the 1998-99 Hunting Season	41
40	Expanded Statewide and Regional Summaries of RACCOON Hunting in Virginia During the 1998-99 Hunting Season	42
41	Expanded Statewide and Regional Summaries of BOBCAT Hunting in Virginia During the 1998-99 Hunting Season	43

<u>Table</u>		<u>Page</u>
42	Expanded Statewide Summary of TOTAL SQUIRREL Hunting in Virginia During the 1998-99 Hunting Season	44
43	Expanded Statewide Summary of TOTAL GOOSE Hunting in Virginia During the 1998-99 Hunting Season	44
44	Perceptions of Deer Hunters Regarding Trends in Number of Deer, 1998-99	45
45	Perceptions of All Hunters Regarding How to Manage The Deer Herd, 1998-99	45
46	Perceptions of Selected Hunter Groups Regarding The Size of the Turkey Population in the Area They Hunted, 1998-99	45
47	Perceptions of 1998 Fall Turkey Hunters Regarding Trends in Number of Turkeys in 1998-99	46
48	Perceptions of 1999 Spring Turkey Hunters Regarding Trends in Number of Turkeys in 1998-99	46
49	Perceptions of 1999 Non-Turkey Hunters Regarding Trends in Number of Turkeys in 1998-99	46
50	Opinions of 1998 Fall Turkey Hunters Regarding How To Manage The Turkey Population	47
51	Opinions of 1999 Spring Turkey Hunters Regarding How To Manage The Turkey Population	47
52	Opinions of Non-Turkey Hunters Regarding How To Manage The Turkey Population	47
53	Perceptions of All Hunters Regarding The Size of The Bear Population in the Area They Hunted, 1998-99	48

<u>Table</u>		<u>Page</u>
54	Perceptions of Bear Hunters Regarding Trends in Number of Bears, 1998-99	48
55	Perceptions of Non-Bear Hunters Regarding Trends in Number of Bears, 1998-99	48
56	Opinions of Bear Hunters Regarding How To Manage The Bear Population, 1998-99	49
57	Opinions of Non-Bear Hunters Regarding How To Manage The Bear Population, 1998-99	49
58	Perceptions of Hunters Regarding Quality of Overall Management of Bears by VDGIF	49
59	Percentage of Bobcats Killed While Hunting	50
60	Percentage of Coyotes Killed While Hunting	50
61	Percentage of Foxes Killed While Hunting	50
62	Statewide and Regional Summaries of Days Spent Squirrel Hunting During Two Segments of the 1998-99 Season	51
63	Preferences of Squirrel Hunters Regarding Options For Opening Date of Squirrel Season	51
64	Percentage of Bear Hunters Utilizing Selected Methods/Seasons	51
65	Opinions of Deer (Gun) Hunters Regarding The Reduction of Antlered Bucks Harvested	51
66	Opinions of Deer (Gun) Hunters Regarding Approaches To Regulating Harvest of Antlered Bucks	52
67	Statewide and Regional Summaries of Average Seasonal Harvest of Button Bucks During 1998-99 Season	52

<u>Table</u>		<u>Page</u>
68	Statewide and Regional Distribution of Hunters That Hunted With a Muzzleloader During The 1998-99 Muzzleloader Season	52
69	Opinions of Muzzleloader Deer Hunters vs. Other Deer Hunters Regarding Designating Certain Areas For Primitive Muzzleloader Hunters Only	52
70	Opinions of Muzzleloader Deer Hunters vs. Other Deer Hunters Regarding Replacing 3 Days of The Early Muzzleloading Season With a Primitive Muzzleloading Season	53
71	Opinions of Muzzleloader Deer Hunters vs. Other Deer Hunters Regarding Replacing 3 Days of The Early Muzzleloading Season West of The Blue Ridge With A Primitive Muzzleloading Season	53
72	Mean Number of Animals Seen By Archery Deer Hunters In 1998-99	53
73	Perceptions of Deer Hunters Regarding Overall Quality of Gun Deer Hunting During 1998-99	54
74	Opinions of Gun Deer Hunters Regarding The Appropriate Policy Regarding Doe Days	54
75	Statewide and Regional Summaries of Distribution of Hunting On Opening Day of Spring 1999 Turkey Season	54
76	Perceptions of Spring Turkey Hunters Regarding Overall Quality of The 1999 Spring Turkey Season	54
77	Perceptions of Fall Turkey Hunters Regarding Overall Quality of The 1998 Fall Turkey Season	55
78	Statewide and Regional Distribution of Fall Turkey Hunting ACROSS EIGHT TYPES OF LAND During The 1998 Hunting Season	55
79	Statewide Summary of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	56

<u>Table</u>		<u>Page</u>
80	Region 1 Summary of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	57
81	Region 2 Summary of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	58
82	Region 3 Summary of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	59
83	Region 4 Summary of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	60
84	Region 5 Summary of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	61
85	Statewide and Regional Summaries of Turkey Hunters' Perceptions of the Importance of Selected Attributes Associated With Hunting Turkeys During Fall 1998	62
86	Selected Demographics of All Respondents	62
87	Responses of Hunters Regarding The Person Who Taught Them How To Hunt	63
88	Responses of Hunters Regarding Game Species First Hunted	63
89	Responses of Hunters Regarding Introducing a Young Person To Hunting and Game Species Hunted	64
90	Statewide Summary of Current and Childhood Residences of All Hunters, 1998-99	64
91	Statewide Summary of Land Ownership Suitable For Hunting 1998-99	65

Virginia Survey of Hunter Harvest, Effort and Attitudes 1998-99

The Department of Game and Inland Fisheries, being the agency primarily responsible for managing the state's fish and wildlife resources, depends upon accurate population indices to monitor the health of wildlife species. Various techniques are used annually to establish indices of population numbers. Walking transects, enumerating the presence of species by counting tracks, droppings, etc. within quadrants, and conducting call counts along highways are excellent examples of these techniques (for a detailed analysis of estimating wildlife populations, see Davis and Winstead 1980).

Another group of indices important to wildlife managers involves precise estimates of harvest and hunter efforts. Game harvest surveys collect data which are used to generate indices that can be used to monitor changes in harvest and hunter effort across seasons. These data, in turn, can be used to regulate harvests, evaluate habitat conditions, and monitor various aspects of the socio-economic environment (Steffen, 1987:7).

Although some researchers have attempted to estimate game harvests through unobtrusive observation techniques (see Jackson and Norton, 1979), and some management areas are conducive to conducting counts at check stations, this is not feasible for producing statewide or regional estimates. Therefore, game harvest surveys are typically conducted through the use of mail questionnaires. Filion (1980) provides an excellent overview of the use of human surveys in wildlife management.

The purpose of this study was to:

- (a) estimate game harvest and hunter effort indices for major game and furbearing species in Virginia; and,
- (b) collect and analyze other socio-psychological data deemed important to the agency, such as hunters' satisfaction, attitudes, beliefs, preferences, and constraints.

Methods

Generation of the Sample

A random sample of 4,848 Virginia hunters was drawn from license records maintained by the Administrative Services Division of the Department of Game and Inland Fisheries. A stratified, random sampling design was developed to select potential survey participants from these files. All persons who purchased a general state resident hunting license, a county-city license, or a senior license for the 1997-98 season were eligible to be drawn ($N = 266,585$). To ensure the representativeness of the sample, the number of license holders within each of the three categories was determined and the number of names selected was proportionate to the number of licenses sold (see Table 1).

Consideration was also given to ensuring the representativeness of the sample geographically across the state. The most preferred method would be to select hunters based on where they hunted; but, there was no way to determine the distribution of hunting across the state. The most feasible strategy, then, was to select hunters proportionately, based on where they purchased their license (i.e., if a license agent sold 2% of the total licenses within one of the

Table 1.
1997-1998 Hunting Population and Survey Sample Statistics

License Type	Population	Sample	Pct.
State Resident Licenses	236,370	4,300	88.7%
County/City Licenses	15,853	286	5.9%
Senior (65+) Licenses	14,362	262	5.4%
<hr/>			
TOTALS	266,585	4,848	100%

three categories, then 100 license holders - 2% of 5,000 - were drawn from that license agent's returned license stubs). The social security number of each hunter selected was entered into a computer file and submitted to the Virginia Department of Motor Vehicles (DMV). The DMV, in turn, provided researchers with names and addresses of all hunters selected. In general, the sampling procedures used in this study were built upon the work described by Steffen (1987) in Mississippi.

Development of Survey Instrument

A survey instrument was developed to collect harvest data for selected Virginia game and furbearing species. The design of this instrument was developed to allow the replication of this data collection effort on an annual basis. Game harvest data served as the core of the survey instrument. However, hunter effort data, preferences for seasons and bag limits, and other socio-economic data were collected as well. VDGIF staff biologists and administrators were polled to determine general areas of needed data and used to refine the instrument (Appendix A).

Administration of the Survey

Procedures outlined by Dillman (1978) were employed to collect the data. A questionnaire, a self-addressed pre-stamped envelope, and a personalized cover letter explaining the importance of the study were mailed to each of the 4,848 study participants. One week after the initial mailing, a post card reminder was sent to each person to encourage early response. Non-respondents to the first mailing were identified and two follow-up mailings were sent, when necessary.

Response Rate

By the end of the data collection period, a total of 207 surveys were returned as undeliverable (persons moved, wrong address given, etc.). They were removed from the original sample. Another 2,788 questionnaires had been returned. Of that total, 393 persons either did not purchase a license in 1997-98 (327 persons/6.7%) or refused to complete the survey (66 persons/1.3%), and were subsequently removed from the sample as well. Consequently, a total of 2,395 usable questionnaires were received, resulting in an effective response rate of 56.4% (effective n = 4,248).

Data Analyses

Data from returned questionnaires were entered into a computer file and analyzed using standard statistical techniques. Estimates of state-wide and regional harvests of each species were generated with the level of precision (std. error) of each estimate specified. Estimates were based on the total licenses sold within the three categories (state resident, county/city, and senior) as depicted in Table 2.

Table 2.
Distribution of Hunting License Holders
Among Three License Categories, 1998-99

	Population	Pct.
State Resident Licenses	230,802	89%
County/City Licenses	14,652	5.7%
Senior (65+) Licenses	13,726	5.3%
TOTALS	259,180	100%

Regional comparisons were made based on the five regions of Virginia depicted in Figure 1. For a detailed account of the statistical formulas used for specific statewide and regional calculations of estimates and standard errors, readers are encouraged to see Steffen (1987).

Results

Results are provided on the following pages in tabular form. Analyses are segmented into two sections of information. The first section provides estimates and standard errors of harvest and effort for 40 game species (or subpopulations of game animals) during the 1998-99 hunting seasons. Statewide summaries are shown in Tables 3 and 4. Regional estimates are provided in Tables 5-43.

The second section assesses hunters' preferences for selected season dates, bag limits, game management strategies, and other data pertinent to management of hunting in Virginia. This information is included in Tables 44-91.

Notes

Several important points should be considered when interpreting the tables. They are summarized below.

1. When considering statistics given in this report, it is important to remember that they should not be viewed as absolute numbers, especially when comparing these statistics with other statistics from other studies. Rather, the data provided here are only indices of harvest and effort, for use in conjunction with past and future mail surveys in this ongoing research project to determine trends. Response and non-response biases exist in all survey efforts. However, when care is taken to fully replicate study methods in subsequent studies, biases should be constant, therefore providing indices of trends over time.
2. Total Harvest and Total Man-Days statistics are derived from a formula utilizing the total number of licenses sold for the 1998-99 hunting season ($n=259,180$). However, the statistics reported for Spring Turkey (1998) used a factor of 266,585 since this season was actually during the 1997-98 hunting season. Total Harvest statistics include all animals harvested regardless of whether or not a hunter was hunting specifically for that animal (incidental kills).
3. Statistics for (a) Average Daily Kill, (b) Average Seasonal Harvest, (c) Percent Successful Hunters, (d) Average Seasonal Days Hunting, (e) Total Hunters, and (f) Percent of Total Licenses/Hunters Per Region were calculated using data only from those hunters who reported hunting specifically for that game animal.
4. Totals may not always total 100 percent due to rounding errors or missing values.
5. Regions were renumbered after the 1993-94 study. The composition of the regions, however, is consistent among studies. Please refer to the map included as part of the survey instrument, included as Appendix A.
6. Missing regional data for each species hunted were treated differently prior to the 1997-98 study. Beginning with the 1997-98 survey, respondents who did not provide information regarding the region where they hunted a particular species were eliminated from the regional estimates provided in Tables 5-41. Compared to previous surveys, this change particularly impacted the regional estimates reported for Average Daily Kill, Average Seasonal Harvest, Pct. Successful, Average Seasonal Days, and Total Hunters. While the parameter estimates for averages and totals remained approximately the same, the standard errors for these estimates generally increased. Care should be taken when comparing these regional data with regional data from previous studies conducted from 1993-94 through 1996-97. The statewide estimators remained unaffected by this change.
7. Parenthetical notations displayed immediately following table number (e.g., Q24) refer to question numbers in the survey instrument.

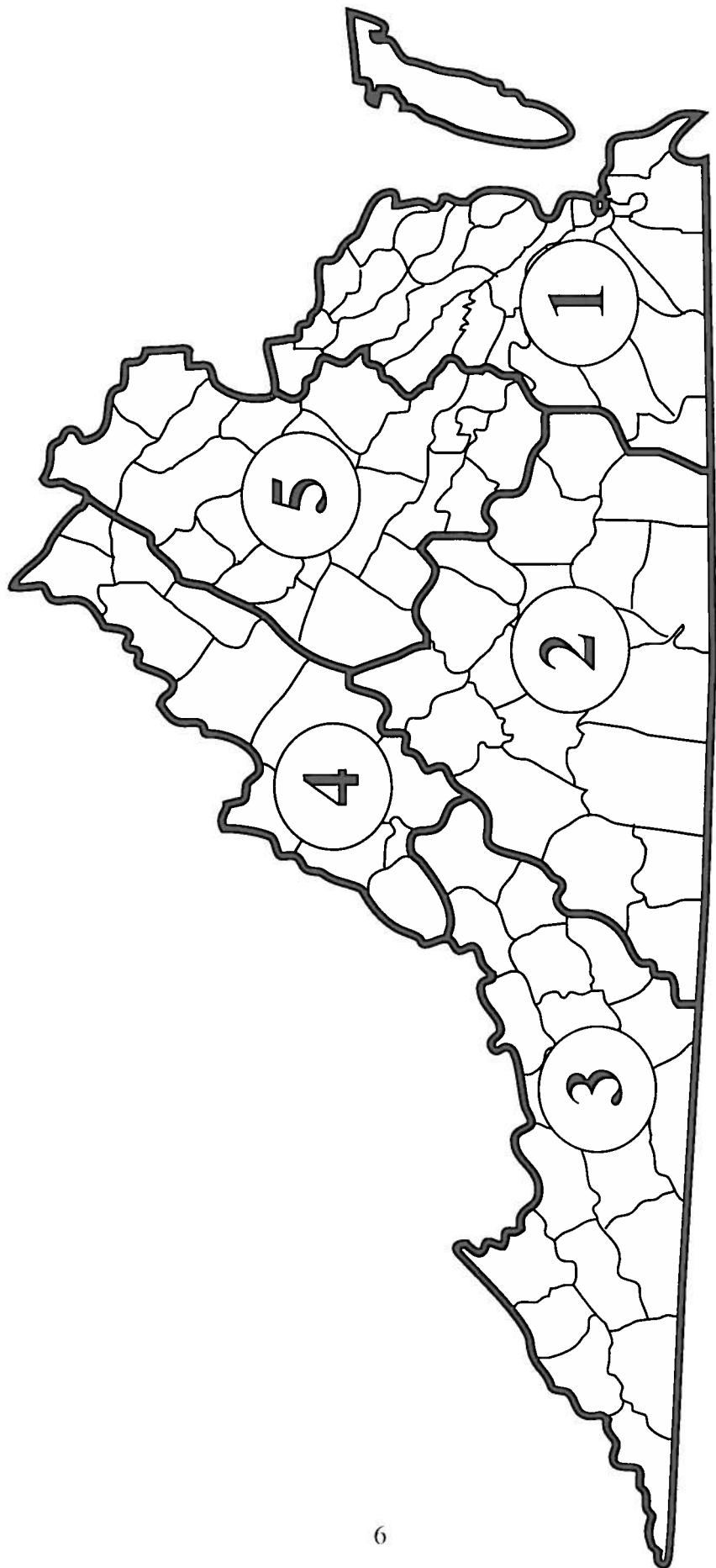


Figure 1

TABLE 3. EXPANDED STATEWIDE SUMMARY OF THE 1998-99 VA SURVEY OF GAME HARVEST BASED ON 259,180 LICENSE HOLDERS.									
SPECIES	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT TOTAL LICENSEES	
DOVE	822,017	4.430	15.80	81.3	181,805	3.57	50,970	19.7	
QUAIL	102,157	1.155	4.98	50.9	81,704	4.31	18,938	7.3	
WOODCOCK	2,705	0.220	0.46	29.2	5,411	2.08	2,597	1.0	
RUFFED GROUSE	49,131	0.344	1.81	47.6	130,293	5.26	24,782	9.6	
CROW	258,422	2.144	12.08	85.8	103,023	5.63	18,289	7.1	
RABBIT	404,299	1.111	6.55	77.4	349,758	5.90	59,303	22.9	
TOTAL SQUIRREL	1,051,329	1.383	10.11	86.0	723,540	7.31	99,019	38.2	
GRAY SQUIRREL	926,663	1.610	9.07	85.7	547,687	5.64	97,179	37.5	
FOX SQUIRREL	124,666	0.604	3.61	71.3	175,853	5.97	29,435	11.4	
GROUNDHOG/WOODCHUCK	475,073	1.017	10.50	92.3	391,097	10.33	37,876	14.6	
TOTAL DEER	284,611	0.077	1.25	57.4	3,555,690	16.24	218,923	84.5	
BUCK	168,494	0.045	0.73	47.8	----	----	----	----	
DOE	116,117	0.032	0.51	31.9	----	----	----	----	
ARCHERY	31,708	0.041	0.40	28.2	693,996	9.84	70,558	27.2	
BUCK	17,748	0.022	0.22	19.0	----	----	----	----	
DOE	13,960	0.019	0.18	15.2	----	----	----	----	
MUZZLELOADER	61,143	0.078	0.49	36.8	745,508	6.26	119,147	46.0	
BUCK	42,421	0.054	0.34	28.4	----	----	----	----	
DOE	18,722	0.024	0.15	12.7	----	----	----	----	
QUN	191,761	0.085	0.86	48.2	2,116,186	10.13	208,967	80.6	
BUCK	108,325	0.048	0.48	36.9	----	----	----	----	
DOE	83,435	0.037	0.38	26.4	----	----	----	----	
TURKEY LY 98-99	45,127	0.053	0.39	27.4	784,141	7.39	106,161	41.0	
SPRING 1998 *	25,267	0.059	0.35	25.5	390,806	5.85	66,785	25.1	
FALL 1998	24,782	0.057	0.27	22.5	376,163	4.70	79,972	30.9	
SPRING 1999	20,345	0.045	0.27	23.0	407,979	5.98	68,177	26.3	
BEAR	1,515	0.013	0.08	6.3	100,858	5.86	17,207	6.6	
TOTAL DUCKS	197,388	1.597	10.91	83.1	118,281	6.83	17,315	6.7	
MALLARD	74,778	0.611	4.18	65.6	----	----	----	----	
WOOD	46,425	0.378	2.58	47.5	----	----	----	----	
BLACK	22,942	0.189	1.29	33.8	----	----	----	----	
ALL OTHERS	53,243	0.418	2.86	39.4	----	----	----	----	
TOTAL GEESE	84,734	1.014	6.21	66.1	82,137	6.12	13,419	5.2	
SEPT.	26,621	1.087	3.31	62.5	23,700	3.04	7,792	3.0	
NOV MARCH	58,113	0.976	5.61	63.8	58,437	5.74	10,172	3.9	
RED FOX	17,315	0.163	1.16	53.4	78,999	7.09	11,146	4.3	
GRAY FOX	28,461	0.349	2.44	53.8	70,341	6.99	10,064	3.9	
COYOTE	6,277	0.058	0.75	37.3	71,423	12.94	5,519	2.1	
RACCOON	96,421	0.572	8.12	79.8	136,895	14.21	9,631	3.7	
BOBCAT	4,004	0.097	0.48	27.1	25,756	4.96	5,194	2.0	

* N 266,585 TOTAL LICENSES 1997-98

TABLE 4. EXPANDED STATEWIDE ESTIMATES OF TOTAL HARVEST (WITH STD ERRORS) FOR VIRGINIA GAME SPECIES DURING 1998-99.

SPECIES	TOTAL HARVEST	STANDARD ERROR		AS % OF TOTAL *	95% CONFIDENCE INTERVAL	
		SE	AS % OF TOTAL *		LOWER LIMIT	UPPER LIMIT
DOVE	822,017	61,912	7.5	7.5	698,194	945,841
QUAIL	102,157	17,105	16.7	16.7	67,946	136,368
WOODCOCK	2,705	973	36.0	36.0	760	4,651
RUFFED GROUSE	49,131	6,509	13.2	13.2	36,113	62,148
CROW	258,422	39,698	15.4	15.4	179,026	337,819
RABBIT	404,299	28,821	7.1	7.1	346,657	461,941
TOTAL SQUIRREL	1,051,329	46,014	4.4	4.4	959,302	1,143,356
GRAY SQUIRREL	926,663	40,814	4.4	4.4	845,036	1,008,290
FOX SQUIRREL	124,666	11,772	9.4	9.4	101,123	148,209
GROUNDHOG/WOODCHUCK	475,073	42,064	8.9	8.9	390,945	559,201
TOTAL DEER	284,611	9,299	3.3	3.3	266,014	303,208
BUCK	168,494	5,473	3.2	3.2	157,548	179,440
DOE	116,117	5,666	4.9	4.9	104,785	127,449
ARCHERY	31,708	2,947	9.3	9.3	25,814	37,601
BUCK	17,748	1,586	8.9	8.9	14,575	20,920
DOE	13,960	1,900	13.6	13.6	10,160	17,760
MUZZLELOADER	61,143	3,211	5.3	5.3	54,721	67,565
BUCK	42,421	2,444	5.8	5.8	37,533	47,309
DOE	18,722	1,657	8.9	8.9	15,407	22,037
GUN	191,761	6,501	3.4	3.4	178,759	204,762
BUCK	108,325	3,984	3.7	3.7	100,358	116,293
DOE	83,435	4,034	4.8	4.8	75,368	91,503
TURKEY LY 98-99	45,127	2,696	6.0	6.0	39,735	50,519
SPRING 1998 **	24,565	2,259	9.2	9.2	20,047	29,084
FALL 1998	24,782	1,840	7.4	7.4	21,101	28,463
SPRING 1999	20,345	1,660	8.2	8.2	17,025	23,665
BEAR	1,515	483	31.9	31.9	549	2,481
TOTAL DUCKS	197,388	22,994	11.6	11.6	151,399	243,377
MALLARD	74,778	10,219	13.7	13.7	54,340	95,217
WOOD	46,425	6,813	14.7	14.7	32,798	60,052
BLACK	22,942	4,224	18.4	18.4	14,493	31,391
ALL OTHERS	53,243	7,958	14.9	14.9	37,328	69,158
TOTAL GEESE	84,734	16,582	19.6	19.6	51,570	117,898
SFTPT.	26,621	6,194	23.3	23.3	14,233	39,010
NOV - MARCH	58,113	11,277	19.4	19.4	35,559	80,666
RED FOX	17,315	2,733	15.8	15.8	11,850	22,780
GRAY FOX	28,461	9,436	33.2	33.2	9,589	47,334
COYOTE	6,277	1,600	25.5	25.5	3,076	9,477
RACCOON	96,421	18,575	19.3	19.3	59,271	133,572
BOBCAT	4,004	1,006	25.1	25.1	1,991	6,017
* % = 100 (SE/TOTAL HARVEST)						
** N=266,585 TOTAL LICENSES 1997-98						

TABLE 5

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF DOVE HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

Region	Statistic	Total Harvest		Average Seasonal Harvest		Percent Successful Hunters		Total Man-days		Average Seasonal Days Hunting		Total Hunters		Percent Hunters per Region	
		Total Harvest	Average Daily Kill												
1	ESTIMATE	187,973	3,939	12.75	79.4	49,888		3,24	14,176						29.3
	(SE)	23,494	0.293	1.24	3.5	5,391		0.25	1,205						2.2
	N	2,395	131	131	131	2,395		131	2,395						447
2	ESTIMATE	242,947	4,378	15.67	84.1	57,463		3.58	14,934						30.9
	(SE)	30,325	0.353	1.55	3.1	6,041		0.26	1,234						2.2
	N	2,395	138	138	138	2,395		138	2,395						447
3	ESTIMATE	99,235	6,078	29.55	65.5	19,263		4.86	3,138						6.5
	(SE)	37,783	1,016	10.88	9.0	4,575		1.09	579						1.2
	N	2,395	29	29	29	2,395		29	2,395						447
4	ESTIMATE	79,972	3,793	15.26	85.7	22,293		4.02	4,545						9.4
	(SE)	15,899	0.391	2.43	5.5	3,930		0.54	695						1.4
	N	2,395	42	42	42	2,395		42	2,395						447
5	ESTIMATE	206,586	4,970	17.14	86.9	43,936		3.45	11,579						23.9
	(SE)	29,032	0.423	1.90	3.3	5,097		0.28	1,094						2.0
	N	2,395	107	107	107	2,395		107	2,395						447

TABLE 6

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF QUAIL HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST		AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
		AVERAGE DAILY KILL	TOTAL HARVEST						
1	ESTIMATE	30,517	0.944	3.97	55.3	22,293	4.21	4,112	24.1
	(SE)	8,881	0.189	1.09	8.2	4,562	0.79	662	3.4
	N	2,395	38	38	2,395	38	2,395	158	158
2	ESTIMATE	42,962	0.974	5.78	34.521	5.93	4,978	29.1	
	(SE)	11,960	0.241	1.74	7.4	8,590	1.47	727	3.6
	N	2,395	46	46	2,395	46	2,395	158	158
3	ESTIMATE	20,345	0.864	3.17	50.0	12,120	3.67	1,948	11.4
	(SE)	7,670	0.276	1.07	12.1	2,791	0.76	457	2.5
	N	2,395	18	18	2,395	18	2,395	158	158
4	ESTIMATE	19,154	0.958	3.07	33.3	10,172	3.20	1,623	9.5
	(SE)	7,780	0.559	1.59	12.6	2,558	0.87	418	2.3
	N	2,395	15	15	2,395	15	2,395	158	158
5	ESTIMATE	43,287	1.868	6.56	58.5	20,561	3.51	4,437	25.9
	(SE)	12,686	0.507	2.14	7.8	3,617	0.48	687	3.5
	N	2,395	41	41	2,395	41	2,395	158	158
PERCENT OF TOTAL LICENSEES									
STATEWIDE									
ESTIMATE	102,157	1.155	4.98	50.9	81,704	4.31	18,938	7.3	
(SE)	17,105	0.154	0.75	3.8	10,505	0.46	1,379	0.5	
N	2,395	175	175	2,395	175	2,395	2,395	2,395	
PERCENT OF TOTAL LICENSEES									

TABLE 7

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF WOODCOCK HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	TOTAL LICENSEES
1	ESTIMATE	1,623	0.267	0.80	60.0	2,164	3.00	541	26.3	
	(SE)	831	0.114	0.37	24.5	892	0.89	242	10.4	
	N	2,395	5	5	5	2,395	5	2,395	19	
2	ESTIMATE	1,298	0.833	1.25	75.0	1,172	1.50	433	21.1	
	(SE)	734	0.398	0.48	25.0	446	0.29	216	9.6	
	N	2,395	4	4	4	2,395	4	2,395	19	
3	ESTIMATE	974	0.500	1.00	50.0	974	2.00	216	10.5	
	(SE)	693	0.250	1.00	50.0	446	1.00	153	7.2	
	N	2,395	2	2	2	2,395	2	2,395	19	
4	ESTIMATE	758	0.000	0.00	0.0	974	1.00	433	21.1	
	(SE)	658	0.000	0.00	0.0	358	0.00	216	9.6	
	N	2,395	4	4	4	2,395	4	2,395	19	
5	ESTIMATE	1,082	0.000	0.00	0.0	1,407	2.00	433	21.1	
	(SE)	734	0.000	0.00	0.0	582	0.71	216	9.6	
	N	2,395	4	4	4	2,395	4	2,395	19	
PERCENT OF TOTAL LICENSEES										
STATEWIDE										
ESTIMATE	2,705	0.220	0.46	29.2	5,411	2.03	2,597	1.0		
(SE)	973	0.080	0.16	9.5	1,440	0.37	528	0.2		
N	2,395	24	24	24	2,395	24	2,395	2,395		

卷之三

RUFFED GROUSE HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

Region	Statistic	Average Seasonal Harvest			Percent Successful Hunters	Total Man-Days	Average Seasonal Days Hunting	Total Hunters	Percent Hunters per Region
		Total Harvest	Average Daily Kill	Average Seasonal Harvest					
1	Estimate	4,653	0.333	0.50	50.0	9,631	1.50	216	1.0
	(SE)	1,404	0.221	0.50	50.0	2,351	0.50	153	0.7
	N	2,395	2	2	2	2,395	2	2,395	193
2	Estimate	5,194	0.133	0.60	40.0	14,176	4.50	1,082	5.2
	(SE)	1,440	0.081	0.27	16.3	3,122	1.36	342	1.6
	N	2,395	10	10	10	2,395	10	2,395	193
3	Estimate	34,846	0.399	2.92	60.4	85,275	7.31	10,389	49.7
	(SE)	6,056	0.060	0.49	5.0	12,206	0.90	1,039	3.6
	N	2,395	96	96	96	2,395	96	2,395	193
4	Estimate	13,635	0.262	1.04	39.1	39,066	3.99	7,467	35.8
	(SE)	2,315	0.056	0.10	5.9	5,057	0.38	886	3.5
	N	2,395	69	69	69	2,395	69	2,395	193
5	Estimate	7,683	0.467	1.75	38	15,800	3.75	1,731	8.3
	(SE)	1,993	0.171	0.72	12.5	2,911	0.39	432	2.0
	N	2,395	16	16	16	2,395	16	2,395	193
Percent of Total Licensees									
Statewide Total Licensees									
Estimate	49,131	0.344	1.81	47.6	130,293	5.26	24,782	9.6	
(SE)	6,509	0.039	0.23	3.3	13,254	0.42	1,558	0.6	
N	2,395	229	229	229	2,395	229	2,395	2,395	

TABLE 9

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF CROW HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	AVERAGE HUNTERS PER REGION
1	ESTIMATE	62,549	2,337	9,08	92.3	16,016	3.88	2,814	17.6	17.6
	(SE)	18,895	0.568	2.20	5.3	3,729	0.94	549	3.1	3.1
	N	2,395	26	26	26	2,395	26	2,395	148	148
2	ESTIMATE	84,301	1,922	13,16	95.6	38,417	6.84	4,870	30.4	30.4
	(SE)	17,705	0.250	2.88	3.1	8,348	1.36	719	3.8	3.8
	N	2,395	45	45	45	2,395	45	2,395	148	148
3	ESTIMATE	75,752	3,127	16,22	81.3	23,050	5.19	3,463	21.6	21.6
	(SE)	26,016	1,473	6.87	7.0	4,819	0.96	608	3.4	3.4
	N	2,395	32	32	32	2,395	32	2,395	148	148
4	ESTIMATE	33,331	1,085	6.85	84.6	13,960	6.31	1,407	8.8	8.8
	(SE)	7,603	0.369	2.28	10.4	4,977	2.97	389	2.3	2.3
	N	2,395	13	13	13	2,395	13	2,395	148	148
5	ESTIMATE	70,558	2,598	14.53	90.6	24,457	5.59	3,463	21.6	21.6
	(SE)	17,614	0.758	4.14	5.2	4,778	0.86	608	3.4	3.4
	N	2,395	32	32	32	2,395	32	2,395	148	148
PERCENT OF TOTAL LICENSEES										
STATEWIDE										
ESTIMATE	258,422	2,144	12.08	85.8	103,023	5.63	18,289	7.1		
(SE)	39,698	0.313	1.76	2.7	12,355	0.53	1,357	0.5		
N	2,395	169	169	169	2,395	169	2,395	2,395		

TABLE 10

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF RABBIT HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE	85,059	0.962	6.50	79.0	87,331	6.75	11,363	21.2
	(SE)	12,930	0.108	0.92	4.0	12,190	0.79	1,085	1.8
	N	2,395	105	105	105	2,395	105	2,395	496
2	ESTIMATE	116,766	1.177	6.83	82.3	99,127	5.80	15,259	28.4
	(SE)	14,676	0.178	0.76	3.2	13,272	0.68	1,247	2.0
	N	2,395	141	141	141	2,395	141	2,395	496
3	ESTIMATE	87,223	1.127	6.73	79.6	77,159	5.97	11,146	20.8
	(SE)	12,890	0.160	0.92	4.0	10,222	0.62	1,075	1.8
	N	2,395	103	103	103	2,395	103	2,395	496
4	ESTIMATE	53,459	1.275	6.84	73.7	43,720	5.37	6,168	11.5
	(SE)	13,069	0.246	1.88	5.9	7,823	0.84	807	1.4
	N	2,395	57	57	57	2,395	57	2,395	496
5	ESTIMATE	74,778	1.252	6.53	74.4	61,035	5.18	9,740	18.1
	(SE)	12,226	0.141	1.02	4.6	9,239	0.67	1,007	1.7
	N	2,395	90	90	90	2,395	90	2,395	496
STATEWIDE	ESTIMATE	404,299	1.111	6.55	77.4	349,758	5.90	59,303	22.9
	(SE)	28,821	0.060	0.42	1.8	22,601	0.31	2,225	0.9
	N	2,395	548	548	548	2,395	548	2,395	2,395

TABLE 11.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GRAY SQUIRREL HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									AVERAGE SEASONAL DAYS HUNTING	AVERAGE SEASONAL DAYS HUNTING
1	ESTIMATE	165,572	1.723	9.06	87.8	93,933	5.26	14,176	16.0	16.0
	(SE)	18,311	0.143	0.84	2.9	9,984	0.47	1,205	1.3	1.3
	N	2,395	131	131	131	2,395	131	2,395	817	817
2	ESTIMATE	245,112	1.835	9.73	92.1	128,995	5.30	20,669	23.4	23.4
	(SE)	21,886	0.114	0.67	2.0	11,468	0.37	1,435	1.5	1.5
	N	2,395	191	191	191	2,395	191	2,395	817	817
3	ESTIMATE	204,747	1.172	7.83	80.7	161,785	6.68	21,319	24.1	24.1
	(SE)	19,838	0.115	0.65	2.8	17,747	0.68	1,455	1.5	1.5
	N	2,395	197	197	197	2,395	197	2,395	817	817
4	ESTIMATE	182,021	1.632	8.82	81.3	103,564	5.40	15,583	17.6	17.6
	(SE)	20,562	0.161	0.89	3.3	10,559	0.46	1,259	1.3	1.3
	N	2,395	144	144	144	2,395	144	2,395	817	817
5	ESTIMATE	220,871	1.993	10.97	90.3	111,139	5.51	16,665	18.8	18.8
	(SE)	22,550	0.191	0.91	2.4	11,574	0.50	1,299	1.4	1.4
	N	2,395	154	154	154	2,395	154	2,395	817	817
STATEWIDE	ESTIMATE	926,663	1.610	9.07	85.7	547,687	5.64	97,179	37.5	37.5
	(SE)	40,814	0.066	0.34	1.2	26,285	0.23	2,564	1.0	1.0
	N	2,395	898	898	898	2,395	898	2,395	2,395	2,395

TABLE 12.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF FOX SQUIRREL HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	LICENSEES
1	ESTIMATE	12,553	0.893	2.27	45.5	9,848	2.55	1,190	4.4	
	(SE)	4,901	0.347	1.02	15.7	3,300	0.55	358	1.3	
	N	2,395	11	11	11	2,395	11	2,395	251	
2	ESTIMATE	12,553	0.271	1.12	52.9	14,393	4.12	1,840	6.8	
	(SE)	4,802	0.087	0.34	12.5	3,863	0.78	445	1.6	
	N	2,395	17	17	17	2,395	17	2,395	251	
3	ESTIMATE	65,363	0.576	3.84	72.4	95,447	6.66	13,311	49.0	
	(SE)	9,225	0.096	0.49	4.0	14,558	0.90	1,169	3.2	
	N	2,395	123	123	123	2,395	123	2,395	251	
4	ESTIMATE	48,806	0.706	3.90	80.5	55,840	5.52	8,874	32.7	
	(SE)	7,395	0.103	0.44	4.4	8,224	0.62	963	3.0	
	N	2,395	82	82	82	2,395	82	2,395	251	
5	ESTIMATE	21,211	0.990	5.44	72.2	17,531	5.50	1,948	7.2	
	(SE)	6,420	0.264	1.88	10.9	4,547	1.15	457	1.6	
	N	2,395	18	18	18	2,395	18	2,395	251	
PERCENT OF TOTAL LICENSEES										
STATEWIDE										
ESTIMATE	124,666	0.604	3.61	71.3	175,853	5.97	29,435	11.4		
(SE)	11,772	0.065	0.30	2.7	17,991	0.51	1,681	0.6		
N	2,395	272	272	272	2,395	272	2,395	2,395		

TABLE 13. ESTIMATED STATEWIDE AND REGIONAL SUMMERS OF GROUNDHOG/WOODCHUCK HUNTING IN VA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	TOTAL LICENSEES
1 ESTIMATE (SE)	103,023	1,018	11.33	96.7	72,614	11.13	3,247		10.5	
	17,565	0.190	2.64	3.3	12,216	1.91	589		1.8	
	N	2,395	30	30	2,395	30	2,395		286	
2 ESTIMATE (SE)	122,069	0.778	9.02	96.6	110,490	11.59	6,385		20.6	
	19,706	0.132	1.90	2.4	17,111	1.83	821		2.4	
	N	2,395	59	59	2,395	59	2,395		286	
3 ESTIMATE (SE)	210,699	0.985	11.12	93.0	158,646	11.29	10,822		35.0	
	29,414	0.103	1.52	2.6	22,160	1.56	1,060		2.8	
	N	2,395	100	100	2,395	100	2,395		286	
4 ESTIMATE (SE)	149,556	1.051	12.08	93.4	112,329	11.49	6,601		21.3	
	22,607	0.145	2.20	3.2	17,410	1.83	835		2.4	
	N	2,395	61	61	2,395	61	2,395		286	
5 ESTIMATE (SE)	125,532	1.777	15.25	91.7	69,908	8.58	3,896		12.6	
	22,432	0.342	3.80	4.7	11,404	1.43	645		2.0	
	N	2,395	36	36	2,395	36	2,395		286	
										PERCENT OF TOTAL LICENSEES
STATEWIDE ESTIMATE (SE)	475,073	1,017	10.50	92.3	391,097	10.33	37,876		14.6	
	42,064	0.070	0.85	1.4	32,627	0.69	1,871		0.7	
	N	2,395	350	350	2,395	350	2,395		2,395	

卷之三

ESTABLISHED STATEWIDE AND REGIONAL DIVISIONS OF ARCHERY DEPT. HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION		
									ESTIMATE	(SE)	N
1	ESTIMATE	5,519	0.034	0.36	25.6	111,788	10.31	9,740	14.7		
	(SE)	1,082	0.008	0.07	4.6	13,974	0.92	1,007	1.4		
	N	2,395	90	90	90	2,395	90	2,395	612		
2	ESTIMATE	7,683	0.042	0.40	27.1	145,985	9.64	13,960	21.1		
	(SE)	1,303	0.008	0.07	3.9	14,580	0.61	1,196	1.7		
	N	2,395	129	129	129	2,395	129	2,395	612		
3	ESTIMATE	10,064	0.043	0.44	29.0	183,103	10.24	16,774	25.3		
	(SE)	2,211	0.012	0.12	3.7	18,435	0.74	1,303	1.8		
	N	2,395	155	155	155	2,395	155	2,395	612		
4	ESTIMATE	6,493	0.034	0.34	30.6	130,185	10.17	11,687	17.6		
	(SE)	1,127	0.006	0.05	4.5	15,188	0.85	1,099	1.5		
	N	2,395	108	108	108	2,395	108	2,395	612		
5	ESTIMATE	8,982	0.050	0.48	32.3	145,552	9.54	14,068	21.2		
	(SE)	1,387	0.009	0.07	4.1	14,743	0.63	1,200	1.7		
	N	2,395	130	130	130	2,395	130	2,395	612		
STATEWIDE	ESTIMATE	31,708	0.041	0.40	28.2	693,996	9.84	70,558	27.2		
	(SE)	2,947	0.001	0.04	1.8	32,415	0.32	2,358	0.9		
	N	2,395	652	652	652	2,395	652	2,395	2,395		
									PERCENT OF TOTAL LICENSEES		

TABLE 15. EXPANDED STATEWIDE AND REGIONAL SUBSAMPLES OF ARCHERY DEER (BUCK) HUNTING IN VA DURING THE 1998-99 HUNTING SEASON

Region	Statistic									Percent Hunters Per Region	
		Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Man-Days	Average Seasonal Days Hunting	Total Hunters	Average Seasonal Days Hunting	Total Hunters	
1	ESTIMATE	4,004	0.023	0.23	25.6	111,768	10.31	9,740	9.740	14.7	
	(SE)	784	0.005	0.05	4.6	13,974	0.92	1,007	1,007	1.4	
	N	2,395	90	90	90	2,395	90	2,395	2,395	612	
2	ESTIMATE	4,112	0.018	0.17	27.1	145,985	9.64	13,960	13,960	21.1	
	(SE)	791	0.004	0.04	3.9	14,560	0.61	1,196	1,196	1.7	
	N	2,395	129	129	129	2,395	129	2,395	2,395	612	
3	ESTIMATE	5,627	0.021	0.22	29.0	183,103	10.24	16,774	16,774	25.3	
	(SE)	973	0.004	0.04	3.7	18,435	0.74	1,303	1,303	1.8	
	N	2,395	155	155	155	2,395	155	2,395	2,395	612	
4	ESTIMATE	4,437	0.020	0.20	30.6	130,185	10.17	11,687	11,687	17.6	
	(SE)	841	0.004	0.04	4.5	15,188	0.85	1,099	1,099	1.5	
	N	2,395	108	108	108	2,395	108	2,395	2,395	612	
5	ESTIMATE	5,844	0.030	0.28	32.3	145,552	9.54	14,068	14,068	21.2	
	(SE)	973	0.005	0.05	4.1	14,743	0.63	1,200	1,200	1.7	
	N	2,395	130	130	130	2,395	130	2,395	2,395	612	
											PERCENT OF TOTAL LICENSEES
STATEWIDE	ESTIMATE	17,748	0.022	0.22	19.0	693,996	9.84	70,558	70,558	27.2	
	(SE)	1,586	0.002	0.02	1.5	32,415	0.32	2,358	2,358	0.9	
	N	2,395	652	652	652	2,395	652	2,395	2,395	2,395	

HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

Region	Statistic	Average Seasonal Harvest		Percent Successful Hunters	Total Man-Days	Average Seasonal Days Hunting	Total Hunters	Percent Hunters Per Region	
		Total Harvest	Average Daily Kill						
1	ESTIMATE	1,515	0.012	0.12	25.6	111,788	10.31	9,740	14.7
	(SE)	483	0.004	0.04	4.6	13,974	0.92	1,007	1.4
	N	2,395	90	90	2,395	90	2,395	612	612
2	ESTIMATE	3,571	0.024	0.23	27.1	145,985	9.64	13,960	21.1
	(SE)	754	0.005	0.05	3.9	14,580	0.61	1,196	1.7
	N	2,395	129	129	2,395	129	2,395	612	612
3	ESTIMATE	4,437	0.021	0.22	29.0	183,103	10.24	16,774	25.3
	(SE)	1,547	0.008	0.09	3.7	18,435	0.74	1,303	1.8
	N	2,395	155	155	2,395	155	2,395	612	612
4	ESTIMATE	2,056	0.014	0.14	30.6	130,185	10.17	11,687	17.6
	(SE)	494	0.003	0.03	4.5	15,188	0.85	1,099	1.5
	N	2,395	108	108	2,395	108	2,395	612	612
5	ESTIMATE	3,138	0.020	0.19	32.3	145,552	9.54	14,068	21.2
	(SE)	637	0.004	0.04	4.1	14,743	0.63	1,200	1.7
	N	2,395	130	130	2,395	130	2,395	612	612
PERCENT OF TOTAL LICENSEES									
STATEWIDE									
	ESTIMATE	13,960	0.019	0.18	15.2	693,996	9.84	70,558	27.2
	(SE)	1,900	0.003	0.03	1.4	32,415	0.32	2,358	0.9
	N	2,395	652	652	2,395	652	2,395	2,395	2,395

TABLE 17 EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF MUZZLELOADER DEER HUNTING IN VA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	AVERAGE HUNTERS PER REGION
1	ESTIMATE	8,766	0.083	0.52	36.6	98,694	6.22	14,176	12.7	1.0
	(SE)	1,273	0.013	0.07	4.2	10,664	0.51	1,205		1.033
	N	2,395	131	131	2,395		1.31	2,395		
2	ESTIMATE	15,259	0.070	0.48	38.5	204,422	6.84	28,353	25.4	1.4
	(SE)	1,510	0.007	0.04	3.0	14,313	0.30	1,653		1.033
	N	2,395	262	262	2,395		262	2,395		
3	ESTIMATE	13,852	0.072	0.45	34.1	184,294	6.22	27,920	25.0	1.3
	(SE)	1,595	0.009	0.05	3.0	13,270	0.29	1,642		1.033
	N	2,395	258	258	2,395		258	2,395		
4	ESTIMATE	9,848	0.061	0.40	34.3	152,911	6.65	21,427	19.2	1.2
	(SE)	1,163	0.008	0.04	3.4	12,044	0.31	1,459		1.033
	N	2,395	198	198	2,395		198	2,395		
5	ESTIMATE	13,635	0.108	0.58	41.3	117,416	5.37	19,912	17.8	
	(SE)	1,743	0.015	0.07	3.6	9,213	0.23	1,411		1.033
	N	2,395	184	184	2,395		184	2,395		
PERCENT OF TOTAL LICENSEES										
STATEWIDE										
ESTIMATE	61,143	0.078	0.49	36.8	745,508	6.26	119,147	46.0		
(SE)	3,211	0.001	0.02	1.5	23,414	0.14	2,640	1.0		
N	2,395	1,101	1,101	2,395	1,101		2,395	2,395		

TABLE 18. EXPANDED STATEWIDE AND REGIONAL SUBAREAS OF MUZZLELOADER DEER (BUCK) HUNTING IN - DURING THE 1998-99 HUNTING SEASON

Region	Statistic			Average Seasonal Harvest	Percent Successful Hunters	Total Man-Days	Average Seasonal Days Hunting	Total Hunters	Percent Hunters Per Region
		Total Harvest	Average Daily Kill						
1	Estimate	5,735	0.054	0.34	28.2	98,694	6.22	14,176	12.7
	(SE)	904	0.008	0.05	3.9	10,664	0.51	1,205	1.0
	N	2,395	131	131	2,395	131		2,395	1,033
2	Estimate	10,497	0.048	0.33	29.8	204,422	6.84	28,353	25.4
	(SE)	1,141	0.005	0.03	2.8	14,313	0.30	1,653	1.4
	N	2,395	262	262	2,395	262		2,395	1,033
3	Estimate	9,415	0.049	0.30	26.7	184,294	6.22	27,920	25.0
	(SE)	1,113	0.006	0.03	2.8	13,270	0.29	1,642	1.3
	N	2,395	258	258	2,395	258		2,395	1,033
4	Estimate	6,601	0.040	0.27	23.7	152,911	6.65	21,427	19.2
	(SE)	928	0.032	0.04	3.0	12,044	0.31	1,459	1.2
	N	2,395	198	198	2,395	198		2,395	1,033
5	Estimate	9,631	0.078	0.42	32.6	117,416	5.37	19,912	17.8
	(SE)	1,297	0.009	0.05	3.5	9,213	0.23	1,411	1.2
	N	2,395	184	184	2,395	184		2,395	1,033
PERCENT OF TOTAL LICENSEES									
STATEWIDE									
	Estimate	42,421	0.054	0.34	28.4	745,508	6.26	119,147	46.0
	(SE)	2,444	0.003	0.02	1.4	23,414	0.14	2,640	1.0
	N	2,395	1,101	1,101	2,395	1,101		2,395	2,395

TABLE 19. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF MUZZLELOADER DEER (DOE) HUNTING IN VA DURING THE 1998-99 HUNTING SEASON

TABLE 20.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GUN DEER HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL	LICENSEES
1	ESTIMATE	46,858	0.089	1.23	59.1	479,618	13.85	30,409	15.9	
	(SE)	3,862	0.006	0.09	2.9	48,881	0.60	1,705	0.9	
	N	2,395	281		281	2,395	281	2,395	1,768	
2	ESTIMATE	51,728	0.078	0.87	48.8	615,539	11.22	49,672	26.0	
	(SE)	3,538	0.005	0.06	2.3	30,879	0.38	2,085	1.0	
	N	2,395	459		459	2,395	459	2,395	1,768	
3	ESTIMATE	28,028	0.080	0.55	39.5	318,267	6.88	37,768	19.7	
	(SE)	2,309	0.006	0.04	2.6	16,898	0.20	1,869	0.9	
	N	2,395	349		349	2,395	349	2,395	1,768	
4	ESTIMATE	33,439	0.098	0.74	46.9	323,569	7.52	35,279	18.4	
	(SE)	3,041	0.008	0.07	2.8	18,703	0.28	1,816	0.9	
	N	2,395	326		326	2,395	326	2,395	1,768	
5	ESTIMATE	48,590	0.088	1.05	52.4	512,733	11.90	38,201	20.0	
	(SE)	3,837	0.006	0.08	2.7	30,282	0.50	1,878	1.0	
	N	2,395	353		353	2,395	353	2,395	1,768	
PERCENT OF TOTAL LICENSEES										
STATEWIDE	ESTIMATE	191,761	0.085	0.86	48.2	2,116,186	10.13	208,967	80.6	
	(SE)	6,501	0.003	0.03	1.1	6,501	0.18	2,094	0.8	
	N	2,395	1,931		1,931	2,395	1,931	2,395	2,395	

TAC 53

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GUN DEER (BUCK) HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

TABLE 22.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GUN DEER (DOE) HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	AVERAGE SEASONAL DAYS HUNTING
1	ESTIMATE	23,591	0.046	0.64	38.4	479,618	13.85	30,409	15.9	15.9
	(SE)	2,553	0.005	0.07	2.9	48,881	0.60	1,705	0.9	0.9
	N	2,395	281	281	281	2,395	281	2,395	1,768	1,768
2	ESTIMATE	20,994	0.032	0.36	25.7	615,539	11.22	49,672	26.0	26.0
	(SE)	1,967	0.003	0.03	2.0	30,879	0.38	2,085	1.0	1.0
	N	2,395	459	459	459	2,395	459	2,395	1,768	1,768
3	ESTIMATE	10,172	0.030	0.20	18.3	318,267	6.88	37,768	19.7	19.7
	(SE)	1,157	0.003	0.02	2.1	16,898	0.20	1,869	0.9	0.9
	N	2,395	349	349	349	2,395	349	2,395	1,768	1,768
4	ESTIMATE	14,393	0.044	0.33	25.5	323,569	7.52	35,279	18.4	18.4
	(SE)	1,696	0.005	0.04	2.4	18,703	0.28	1,816	0.9	0.9
	N	2,395	326	326	326	2,395	326	2,395	1,768	1,768
5	ESTIMATE	21,319	0.040	0.47	30.0	512,733	11.90	38,201	20.0	20.0
	(SE)	2,220	0.004	0.05	2.4	30,282	0.50	1,878	1.0	1.0
	N	2,395	353	353	353	2,395	353	2,395	1,768	1,768
PERCENT OF TOTAL LICENSEES										
STATEWIDE										
ESTIMATE										
STATEWIDE (SE)										
N										

TABLE 23. EXPANDED STATEWIDE SUMMARY OF TOTAL DEER HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL DAYS	MAN SEASONAL DAYS HUNTING	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENSEES
ESTIMATE	284,611	0.077	1.25	57.4	3,555,690	16,24	218,923	84.5	
(SE)	9,299	0.002	0.04	1.1	73,250	0.30	1,919	0.7	
N	2,395	2,023	2,023	2,023	2,395	2,023	2,395	2,395	2,395

TABLE 24. EXPANDED STATEWIDE SUMMARY OF TOTAL DEER (BUCKS) HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

2003-04 HUNTING SEASON						PERCENT OF TOTAL LICENSEES
STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	
ESTIMATE	168,494	0.045	0.73	47.8	3,555,690	16.24
STATEWIDE (SE)	5,473	0.001	0.02	1.1	73,250	218,923
N	2,395	2,023	2,023	2,395	2,023	0.30
						1,919
						0.7
						2,395
						2,395

TABLE 25. EXPANDED STATEWIDE SUMMARY OF TOTAL DEER (DOES) HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENSEES
ESTIMATE	116,117	0.032	0.51	31.9	3,555,690	16.24	218,923	84,5	
(SE)	5,666	0.001	0.03	1.0	73,250	0.30	1,919	0.7	
N	2,395	2,023	2,023	2,023	2,395	2,023	2,395	2,395	

TABLE 26. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF SPRING TURKEY (1998) HUNTING IN VIRGINIA

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									LICENSEES	TOTAL
1	ESTIMATE	7,124	0.066	0.45	31.5	92,943	6.82	9,906	16.4	
	(SE)	1,092	0.010	0.08	5.0	10,901	0.67	1,031	1.6	
	N	2,395	89	89	89	2,395	89	2,395	543	
2	ESTIMATE	8,460	0.074	0.37	29.5	106,189	4.97	16,251	26.9	
	(SE)	1,122	0.010	0.05	3.8	9,739	0.32	1,304	1.9	
	N	2,395	146	146	146	2,395	146	2,395	543	
3	ESTIMATE	6,011	0.048	0.27	20.5	106,411	5.52	14,693	24.3	
	(SE)	963	0.009	0.05	3.5	10,237	0.39	1,243	1.8	
	N	2,395	132	132	132	2,395	132	2,395	543	
4	ESTIMATE	4,341	0.037	0.24	16.7	86,153	6.50	9,350	15.5	
	(SE)	851	0.009	0.06	4.1	10,306	0.66	1,002	1.6	
	N	2,395	84	84	84	2,395	84	2,395	543	
5	ESTIMATE	6,901	0.077	0.48	30.4	88,602	6.17	10,240	16.9	
	(SE)	1,211	0.015	0.09	4.8	10,191	0.59	1,047	1.6	
	N	2,395	92	92	92	2,395	92	2,395	543	
PERCENT OF TOTAL LICENSEES										
STATEWIDE	ESTIMATE	20,345	0.045	0.27	23.0	407,979	5.98	68,177	26.3	
	(SE)	1,660	0.004	0.03	1.7	2,063	0.22	2,399	0.9	
	N	2,395	600	600	600	2,395	600	2,395	2,395	

TABLE 27

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF FALL TURKEY (1998) HUNTING IN VIRGINIA

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE	4,220	0.066	0.28	22.1	58,113	4.21	7,359	10.2	
	(SE)	783	0.000	0.07	5.1	7,892	0.44	880	1.2	
	N	2,395	68	68	2,395		68	2,395	665	
2	ESTIMATE	9,848	0.070	0.34	28.6	132,891	4.91	21,535	29.9	
	(SE)	1,163	0.009	0.04	3.2	1,123	0.31	1,462	1.8	
	N	2,395	199	199	2,395		199	2,395	665	
3	ESTIMATE	7,900	0.064	0.30	24.4	112,221	4.68	18,180	25.3	
	(SE)	1,054	0.011	0.04	3.3	11,935	0.45	1,353	1.7	
	N	2,395	168	168	2,395		168	2,395	665	
4	ESTIMATE	4,762	0.040	0.19	16.8	84,301	4.67	12,229	17.0	
	(SE)	833	0.009	0.04	3.5	9,076	0.34	1,123	1.5	
	N	2,395	113	113	2,395		113	2,395	665	
5	ESTIMATE	4,762	0.046	0.21	17.9	83,976	4.49	12,661	17.6	
	(SE)	804	0.010	0.04	3.6	9,384	0.39	1,142	1.5	
	N	2,395	117	117	2,395		117	2,395	665	
									PERCENT OF TOTAL	
									LICENSEES	
STATEWIDE	ESTIMATE	24,782	0.057	0.27	22.5	376,163	4.70	79,972	30.9	
	(SE)	1,840	0.063	0.02	1.5	18,094	0.17	2,447	0.9	
	N	2,395	739	739	2,395		739	2,395	2,395	

TABLE 28.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF SPRING TURKEY (1999) HUNTING IN VIRGINIA

REGION	STATISTIC	AVERAGE SEASONAL HARVEST			PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
		TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST					
1	ESTIMATE	6,168	0.063	0.44	36.2	94,041	6.89	10,172	16.2
	(SE)	954	0.009	0.07	5.0	11,317	0.65	1,029	1.5
	N	2,395	94	94	94	2,395	94	2,395	581
2	ESTIMATE	6,168	0.049	0.27	22.8	117,957	5.36	17,531	27.9
	(SE)	929	0.008	0.04	3.3	11,416	0.39	1,330	1.9
	N	2,395	162	162	162	2,395	162	2,395	581
3	ESTIMATE	4,220	0.030	0.15	13.5	100,317	5.01	15,259	24.3
	(SE)	783	0.007	0.03	2.9	10,746	0.43	1,247	1.8
	N	2,395	141	141	141	2,395	141	2,395	581
4	ESTIMATE	3,571	0.032	0.24	20.0	91,768	7.38	9,198	14.6
	(SE)	722	0.007	0.05	4.4	11,675	0.77	980	1.5
	N	2,395	85	85	85	2,395	85	2,395	581
5	ESTIMATE	5,086	0.053	0.31	26.3	86,682	5.86	10,713	17.0
	(SE)	866	0.009	0.06	4.4	10,948	0.64	1,054	1.6
	N	2,395	99	99	99	2,395	99	2,395	581
PERCENT OF TOTAL									
LICENSEES									
STATEWIDE	ESTIMATE	20,345	0.045	0.27	23.0	407,979	5.98	68,177	26.3
	(SE)	1,660	0.003	0.02	1.7	21,296	0.24	2,332	0.9
	N	2,395	630	630	630	2,395	630	2,395	2,395

TABLE 29.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BEAR HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									LICENSEES	TOTAL
1	ESTIMATE	0	0.000	0.00	0.0	12,878	3.50	216	1.6	
	(SE)	0	0.000	0.00	0.0	4,277	1.50	153	1.1	
	N	2,395	2	2	2	2,395	2	2,395	129	
2	ESTIMATE	325	0.000	0.00	0.0	24,998	5.67	2,273	16.3	
	(SE)	187	0.000	0.00	0.0	5,579	1.05	494	3.3	
	N	2,395	21	21	21	2,395	21	2,395	129	
3	ESTIMATE	541	0.012	0.09	8.7	29,543	7.00	2,489	17.8	
	(SE)	242	0.009	0.06	6.0	6,591	1.46	517	3.4	
	N	2,395	23	23	23	2,395	23	2,395	129	
4	ESTIMATE	1190	0.017	0.11	7.8	56,922	6.47	6,926	49.6	
	(SE)	446	0.009	0.06	3.4	9,856	1.02	854	4.4	
	N	2,395	64	64	64	2,395	64	2,395	129	
5	ESTIMATE	433	0.012	0.05	5.3	21,211	4.42	2,056	14.7	
	(SE)	216	0.013	0.05	5.3	5,205	1.11	470	3.1	
	N	2,395	19	19	19	2,395	19	2,395	129	
PERCENT OF TOTAL LICENSEES										
STATEWIDE	ESTIMATE	1,515	0.013	0.08	6.3	100,858	5.86	17,207	6.6	
	(SE)	483	0.005	0.03	1.9	12,060	0.54	1,319	0.5	
	N	2,395	159	159	159	2,395	159	2,395	2,395	

TABLE 30.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF TOTAL DUCK HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									HUNTERS	LICENSEES
1	ESTIMATE	140,466	1,769	13.48	86.9	75,860	7.62	9,090	57.5	
	(SE)	19,871	0.129	1.51	3.7	10,180	0.69	974	4.1	
	N	2,395	84	84	84	2,395	84	2,395	146	
2	ESTIMATE	19,479	0.970	4.64	64.3	13,852	4.79	1,515	9.6	
	(SE)	5,871	0.159	1.52	13.3	3,976	1.11	404	2.4	
	N	2,395	14	14	14	2,395	14	2,395	146	
3	ESTIMATE	21,102	1.854	29.67	100.0	11,796	16.00	325	2.1	
	(SE)	8,567	0.242	15.56	0.0	4,995	9.61	187	1.2	
	N	2,395	3	3	3	2,395	3	2,395	146	
4	ESTIMATE	16,233	0.917	4.00	63.6	11,796	4.36	1,190	7.5	
	(SE)	5,734	0.446	2.03	15.2	3,626	0.97	358	2.2	
	N	2,395	11	11	11	2,395	11	2,395	146	
5	ESTIMATE	42,097	1.565	8.15	85.3	25,756	5.21	3,679	23.3	
	(SE)	9,630	0.334	1.77	6.2	5,126	0.69	627	3.5	
	N	2,395	34	34	34	2,395	34	2,395	146	
STATEWIDE	ESTIMATE	197,388	1.597	10.91	83.1	118,281	6.83	17,315	6.7	
	(SE)	22,994	0.108	1.02	3.0	12,496	0.50	1,323	0.5	
	N	2,395	160	160	160	2,395	160	2,395	2,395	

TABLE 31

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF MALLARD DUCK HUNTING IN VIRGINIA DURING THE 1999-2000 HUNTING SEASON

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF MALLARD DUCK HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON							
REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING
1	ESTIMATE	48,806	0.639	4.87	72.6	75,860	7.62
	(SE)	8,523	0.071	0.76	4.9	10,180	0.69
	N	2,395		84	84	2,395	84
2	ESTIMATE	5,411	0.239	1.14	35.7	13,852	4.79
	(SE)	1,808	0.078	0.47	13.3	3,976	1.11
	N	2,395		14	14	2,395	14
3	ESTIMATE	8,874	1.104	17.67	100.0	11,796	16.00
	(SE)	4,083	0.500	6.84	0.0	4,995	9.61
	N	2,395		3	3	2,395	3
4	ESTIMATE	6,277	0.604	2.64	45.5	11,796	4.36
	(SE)	2,353	0.214	1.31	15.7	3,626	0.97
	N	2,395		11	11	2,395	11
5	ESTIMATE	16,449	0.689	3.59	67.6	25,756	5.21
	(SE)	3,989	0.149	0.08	8.1	5,126	0.69
	N	2,395		34	34	2,395	34
PERCENT OF TOTAL LICENSEES							
STATEWIDE	ESTIMATE	74,778	0.611	4.18	65.6	118,281	6.83
	(SE)	10,219	0.057	0.49	3.8	12,496	0.50
	N	2,395		160	160	2,395	160

TABLE 32.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF WOOD DUCK HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

TABLE 33

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BLACK DUCK HUNTING IN VIRGINIA DURING THE 1998-99 WINTER SEASON

TABLE 34.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ALL OTHER DUCKS HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Man-Days	Average Seasonal Days Hunting	Total Hunters	Percent Hunters per Region	
									Licenses	Total
1	ESTIMATE	42,205	0.525	4.00	51.2	75,860	7.62	9,090	57.5	57.5
	(SE)	7,281	0.076	0.61	5	10,180	0.69	974	4.1	4.1
	N	2,395	84	84	84	2,395	84	2,395	146	146
2	ESTIMATE	4,220	0.224	1.07	14.3	13,852	4.79	1,515	9.6	9.6
	(SE)	2,116	0.117	0.73	9.7	3,976	1.11	404	2.4	2.4
	N	2,395	14	14	14	2,395	14	2,395	146	146
3	ESTIMATE	4,762	0.417	6.67	33.3	11,796	16.00	325	2.1	2.1
	(SE)	2,800	0.173	6.67	33.3	4,995	9.61	187	1.2	1.2
	N	2,395	3	3	3	2,395	3	2,395	146	146
4	ESTIMATE	3,246	0.125	0.55	18.2	11,796	4.36	1,190	7.5	7.5
	(SE)	1,842	0.081	0.39	12.2	3,626	0.97	358	2.2	2.2
	N	2,395	11	11	11	2,395	11	2,395	146	146
5	ESTIMATE	7,792	0.243	1.26	29.4	25,756	5.21	3,679	23.3	23.3
	(SE)	2,524	0.078	0.43	7.9	5,126	0.69	627	3.5	3.5
	N	2,395	34	34	34	2,395	34	2,395	146	146
PERCENT OF TOTAL LICENSEES										
STATEWIDE	ESTIMATE	53,243	0.418	2.86	39.4	118,281	6.83	17,315	6.7	6.7
	(SE)	7,958	0.051	0.39	3.9	12,496	0.50	1,323	0.5	0.5
	N	2,395	160	160	160	2,395	160	2,395	2,395	2,395

TABLE 35.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GOOSE (SEPT.) HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

TABLE 36. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GOOSE (NOV. - MAR.) HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Man-Days	Average Seasonal Days Hunting	Total Hunters	Percent Hunters Per Region	
									Licensees	Total
1	ESTIMATE (SE)	4,003 2,307	0.519 0.406	2.33 1.66	33.3 14.2	9,199 2,468	4.50 1.06	1,299 374	15.4 4.1	
2	N	2,395	12	12	12	2,395	12	2,395	78	
ESTIMATE (SE)	5,627 2,045	0.643 0.079	3.75 1.13	75.0 13.1	10,930 3,150	5.83 1.53	1,299 374	15.4 4.1		
N	2,395	12	12	12	2,395	12	2,395	78		
ESTIMATE (SE)	1,407 817	0.545 0.298	3.00 3.00	50.0 50.0	4,545 1,551	5.50 2.50	216 153	2.6 1.8		
N	2,395	2	2	2	2,395	2	2,395	78		
ESTIMATE (SE)	6,709 3,008	0.982 0.202	6.88 2.59	87.5 12.5	9,415 2,863	7.00 1.78	866 306	10.3 3.5		
N	2,395	8	8	8	2,395	8	2,395	78		
ESTIMATE (SE)	42,313 10,438	1.334 0.136	8.70 1.78	84.1 5.6	34,413 7,447	6.52 1.21	4,762 711	56.4 5.7		
N	2,395	44	44	44	2,395	44	2,395	78		
PERCENT OF TOTAL										LICENSEES
STATEWIDE	ESTIMATE (SE)	58,113 11,277	0.976 0.104	5.61 0.96	63.8 5.0	58,437 8,829	5.74 0.65	10,172 1,029	3.9 0.4	
N	2,395	94	94	94	2,395	94	2,395	78		

TABLE 37

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF RED FOX HUNTING IN VIRGINIA DURING THE 1999-2000 HUNTING SEASON

TABLE 38

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GRAY FOX HUNTING IN VIRGINIA DURING THE 1998-99 WINTER SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									HUNTERS	LICENSEES
1	ESTIMATE	14,068	0.682	5.15	70.0	19,046	7.55	2,164	23.3	
	(SE)	7,993	0.440	3.56	10.5	7,933	3.18	482	4.6	
	N	2,395	20	20	20	2,395	20	2,395	86	
2	ESTIMATE	7,034	0.282	2.17	39.1	21,860	7.70	2,489	26.7	
	(SE)	3,877	0.174	1.51	10.4	6,645	2.00	517	4.8	
	N	2,395	23	23	23	2,395	23	2,395	86	
3	ESTIMATE	59,521	0.378	2.47	47.1	14,718	6.53	1,840	19.8	
	(SE)	3,129	0.170	1.62	12.5	4,681	1.65	445	4.3	
	N	2,395	17	17	17	2,395	17	2,395	86	
4	ESTIMATE	3,788	0.263	1.31	62.5	11,363	5.00	1,731	18.6	
	(SE)	983	0.113	0.37	12.5	4,279	1.78	432	4.2	
	N	2,395	16	16	16	2,395	16	2,395	86	
5	ESTIMATE	2,705	0.110	0.90	70.0	11,579	8.20	1,082	11.6	
	(SE)	708	0.083	0.28	15.3	6,054	4.77	342	3.5	
	N	2,395	10	10	10	2,395	10	2,395	86	
PERCENT OF TOTAL LICENSEES										
STATEWIDE	ESTIMATE	28,461	0.349	2.44	53.8	70,341	6.99	10,064	3.9	
	(SE)	9,436	0.119	0.90	5.2	12,876	1.07	1,023	0.4	
	N	2,395	93	93	93	2,395	93	2,395	2,395	

TABLE 39

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF COYOTE HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									LICENSEES	PERCENT OF TOTAL
1	ESTIMATE	541	0.000	0.00	0.0	325	0.00	0.00	0.0	0.0
	(SE)	446	0.000	0.00	0.0	325	0.00	0.00	0.0	0.0
	N	2,395	0	0	0	2,395	0	2,395	49	49
2	ESTIMATE	1,732	0.122	1.38	25.0	10,064	11.25	866	16.3	16.3
	(SE)	1,175	0.091	1.24	16.4	4,976	4.42	306	5.3	5.3
	N	2,395	8	8	8	2,395	8	2,395	49	49
3	ESTIMATE	4,004	0.049	0.77	46.2	44,910	15.85	2,814	53.1	53.1
	(SE)	1,096	0.032	0.20	10.0	32,608	11.39	549	7.2	7.2
	N	2,395	26	26	26	2,395	26	2,395	49	49
4	ESTIMATE	1,515	0.050	0.50	35.7	15,475	10.00	1,515	28.6	28.6
	(SE)	611	0.031	0.23	13.3	8,191	4.88	404	6.5	6.5
	N	2,395	14	14	14	2,395	14	2,395	49	49
5	ESTIMATE	649	0.000	0.00	0.0	866	5.00	108	2.0	2.0
	(SE)	459	0.000	0.00	0.0	631	5.00	108	2.0	2.0
	N	2,395	1	1	1	2,395	1	2,395	49	49
STATEWIDE										LICENSEES
ESTIMATE										PERCENT OF TOTAL
STATEWIDE										LICENSEES
ESTIMATE										PERCENT OF TOTAL

TABLE 40.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF RACCOON HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									TOTAL HUNTERS	LICENSEES
1	ESTIMATE	20,128	1.131	11.71	85.7	18,397	10.36	1,515	17.7	
	(SE)	12,664	0.655	8.03	9.7	6,732	3.29	404	4.3	
	N	2,395	14	14	14	2,395	14	2,395	79	
2	ESTIMATE	17,098	0.671	9.40	66.7	25,431	14.00	1,623	19.0	
	(SE)	7,666	0.055	4.18	12.6	11,186	5.92	418	4.4	
	N	2,395	15	15	15	2,395	15	2,395	79	
3	ESTIMATE	29,868	0.466	6.90	79.3	49,131	14.79	3,138	36.7	
	(SE)	7,876	0.058	1.30	7.7	11,670	2.47	579	5.5	
	N	2,395	29	29	29	2,395	29	2,395	79	
4	ESTIMATE	10,605	0.317	4.94	75.0	29,651	15.56	1,731	20.3	
	(SE)	3,950	0.048	1.94	11.2	11,668	5.56	432	4.6	
	N	2,395	16	16	16	2,395	16	2,395	79	
5	ESTIMATE	11,255	0.600	13.80	100.0	15,150	23.00	541	6.3	
	(SE)	5,242	0.112	6.97	0.0	9,243	14.57	242	2.8	
	N	2,395	5	5	5	2,395	5	2,395	79	
PERCENT OF TOTAL LICENSEES										
STATEWIDE	ESTIMATE	96,421	0.572	8.12	79.8	136,895	14.21	9,631	3.7	
	(SE)	18,575	0.087	1.58	4.3	22,865	1.87	1,002	0.4	
	N	2,395	89	89	89	2,395	89	2,395	2,395	

TABLE 41.

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BOBCAT HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION	
									LICENSEES	PERCENT OF TOTAL
1	ESTIMATE	866	0.267	2.00	50.0	2,912	7.50	216	4.5	4.5
	(SE)	507	0.035	2.00	50.0	1,781	6.50	153	3.2	3.2
	N	2,395	2	2	2	2,395	2	2,395	44	44
2	ESTIMATE	866	0.105	0.29	28.6	5,411	2.71	1,515	31.8	31.8
	(SE)	342	0.064	0.13	12.5	1,890	0.84	404	7.1	7.1
	N	2,395	14	14	14	2,395	14	2,395	44	44
3	ESTIMATE	1,623	0.169	0.67	26.7	7,683	3.93	1,623	34.1	34.1
	(SE)	757	0.109	0.41	11.8	2,383	0.93	418	7.2	7.2
	N	2,395	15	15	15	2,395	15	2,395	44	44
4	ESTIMATE	974	0.075	0.45	36.4	8,549	6.09	1,190	25.0	25.0
	(SE)	390	0.028	0.21	15.2	2,567	0.87	358	6.6	6.6
	N	2,395	11	11	11	2,395	11	2,395	44	44
5	ESTIMATE	758	0.000	0.00	0.0	3,138	8.50	216	4.5	4.5
	(SE)	359	0.000	0.00	0.0	1,968	7.50	153	3.2	3.2
	N	2,395	2	2	2	2,395	2	2,395	44	44
PERCENT OF TOTAL										LICENSEES
STATEWIDE	ESTIMATE	4,004	0.097	0.48	27.1	25,756	4.96	5,194	2.0	2.0
	(SE)	1,006	0.033	0.16	6.5	5,008	0.66	742	0.3	0.3
	N	2,395	48	48	48	2,395	48	2,395	2,395	2,395

TABLE 42. EXPANDED STATEWIDE SUMMARY OF TOTAL SQUIRREL HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

TABLE 42. EXPANDED STATEWIDE SUMMARY OF TOTAL SQUIRREL HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENSEES
ESTIMATE		1,051,329	1,383	10.11	86.0	723,540	7.31	99,019	38.2
(SE)		46,014	0.068	0.37	1.1	40,228	0.36	2,574	1.0
N		2,395	915	915	915	2,395	915	2,395	2,395

TABLE 43. EXPANDED STATEWIDE SUMMARY OF TOTAL GOOSE HUNTING IN VIRGINIA DURING THE 1998-99 HUNTING SEASON

TABLE 44. (Q18) PERCEPTIONS OF ALL HUNTERS REGARDING TRENDS IN NUMBER OF DEER, 1998-99 (PCT).

	STATEWIDE	1	2	3	4	5	REGIONS
DECLINED DRAMATICALLY	8.1	6.8	8.7	10.6	11.4	5.7	
DECLINED	25.1	21.4	27.2	26.4	28.3	28.4	
REMAINED THE SAME	42.2	45.7	39.9	44.0	45.8	41.8	
INCREASED	16.7	20.7	17.2	14.1	12.0	18.8	
INCREASED DRAMATICALLY	3.4	2.1	4.6	3.2	1.5	3.1	
NO OPINION	4.3	3.2	2.4	1.7	0.9	2.3	

TABLE 45. (Q19) PERCEPTIONS OF ALL HUNTERS REGARDING HOW TO MANAGE THE DEER HERD, 1998-99 (PCT).

RESPONSE	STATEWIDE	1	2	3	4	5	REGIONS
INCREASE HERD	29.0	18.3	28.4	43.4	37.0	23.9	
STABILIZE HERD	43.9	48.6	45.9	40.5	47.8	48.4	
DECREASE HERD	12.6	16.2	14.1	7.8	4.9	13.0	
NO OPINION	14.5	16.9	11.6	8.3	10.2	14.7	

TABLE 46. (Q20) PERCEPTIONS OF SELECTED HUNTER GROUPS REGARDING THE SIZE OF THE TURKEY POPULATION IN THE AREA THEY HUNTED, 1998-99.*

	STATEWIDE	1	2	3	4	5	REGIONS
1998 FALL TURKEY HUNTERS	4.52	4.95	4.94	4.13	4.20	4.36	
1999 SPRING TURKEY HUNTERS	4.67	5.13	5.04	4.27	4.41	4.45	
NON-TURKEY HUNTERS	4.31	4.43	4.94	4.27	3.82	4.21	

* MEAN SCORES, WHERE 1=LOW, 4=MODERATE, 7=HIGH

TABLE 47. (Q21) PERCEPTIONS OF 1998 FALL TURKEY HUNTERS REGARDING TRENDS IN NUMBER OF TURKEYS IN 1998-99 (PCT).

	STATEWIDE	1	2	3	4	5
DECLINED DRAMATICALLY	2.3	0.0	0.5	3.0	6.2	2.6
DECLINED	14.2	6.0	11.6	15.5	16.8	19.7
REMAINED THE SAME	41.2	47.8	33.2	49.4	38.1	43.6
INCREASED	34.4	32.8	41.7	29.2	31.0	30.8
INCREASED DRAMATICALLY	5.6	7.5	11.6	2.4	4.4	0.09
NO OPINION	2.3	6.0	1.5	0.6	3.5	2.6

TABLE 48. (Q21) PERCEPTIONS OF 1999 SPRING TURKEY HUNTERS REGARDING TRENDS IN NUMBER OF TURKEYS IN 1998-99 (PCT).

	STATEWIDE	1	2	3	4	5
DECLINED DRAMATICALLY	2.1	0.0	0.0	4.3	3.5	3.0
DECLINED	13.6	9.6	9.3	13.5	16.5	18.2
REMAINED THE SAME	37.7	39.4	31.7	46.1	32.9	44.4
INCREASED	37.4	40.4	44.7	31.9	36.5	30.3
INCREASED DRAMATICALLY	6.1	6.4	11.2	1.4	8.2	2.0
NO OPINION	3.0	4.3	3.1	2.8	2.4	2.0

TABLE 49. (Q21) PERCEPTIONS OF NON-TURKEY HUNTERS REGARDING TRENDS IN NUMBER OF TURKEYS IN 1998-99 (PCT).

	STATEWIDE	1	2	3	4	5
DECLINED DRAMATICALLY	1.7	1.1	0.9	1.9	2.9	1.0
DECLINED	11.0	11.4	9.9	14.5	10.9	9.8
REMAINED THE SAME	34.0	34.1	25.6	34.6	39.7	38.5
INCREASED	31.2	29.0	44.8	36.5	19.5	31.7
INCREASED DRAMATICALLY	4.4	5.1	8.5	3.1	2.9	2.9
NO OPINION	17.7	19.3	10.3	9.4	24.1	16.1

TABLE 50. (Q22) OPINIONS OF 1998 FALL TURKEY HUNTERS REGARDING HOW TO MANAGE THE TURKEY POPULATION (PCT).

	STATEWIDE	1	2	3	4	5
INCREASE POPULATION	43.0	37.9	37.4	42.9	46.0	48.7
STABILIZE POPULATION	41.5	34.8	46.0	45.8	38.9	39.3
DECREASE POPULATION	5.6	10.6	8.6	1.2	2.7	3.4
NO OPINION	10.0	16.7	8.1	10.1	12.4	8.5

TABLE 51. (Q22) OPINIONS OF 1999 SPRING TURKEY HUNTERS REGARDING HOW TO MANAGE THE TURKEY POPULATION (PCT).

	STATEWIDE	1	2	3	4	5
INCREASE POPULATION	46.1	35.1	45.3	49.6	43.5	54.1
STABILIZE POPULATION	40.3	44.7	41.0	41.8	41.2	33.7
DECREASE POPULATION	6.1	10.6	8.7	1.4	3.5	4.1
NO OPINION	7.6	9.6	5.0	7.1	11.8	8.2

TABLE 52. (Q22) OPINIONS OF NON-TURKEY HUNTERS REGARDING HOW TO MANAGE THE TURKEY POPULATION (PCT).

	STATEWIDE	1	2	3	4	5
INCREASE POPULATION	37.5	38.8	31.1	41.3	40.7	39.4
STABILIZE POPULATION	31.2	28.1	39.2	37.5	26.6	28.6
DECREASE POPULATION	3.6	6.2	4.1	2.5	1.1	3.9
NO OPINION	27.7	27.0	25.7	18.8	31.6	28.1

TABLE 53. (Q23) PERCEPTIONS OF ALL HUNTERS REGARDING THE SIZE OF THE BEAR POPULATION IN THE AREA THEY HUNTED, 1998-99.*

	STATEWIDE	1	2	3	4	5	REGIONS
BEAR HUNTERS	3.32	4.50	3.05	3.05	3.47	3.33	
NON-BEAR HUNTERS	2.15	1.8	1.67	2.39	2.82	1.95	

* MEAN SCORES, WHERE 1=LOW, 4=MODERATE, 7=HIGH

TABLE 54. (Q24) PERCEPTIONS OF BEAR HUNTERS REGARDING TRENDS IN NUMBER OF BEARS, 1998-99 (PCT).

	STATEWIDE	1	2	3	4	• 5	REGIONS
DECLINED DRAMATICALLY	4.5	0.0	9.5	0.0	6.3	0.0	
DECLINED	16.7	0.0	14.3	13.6	17.2	27.8	
REMAINED THE SAME	51.3	50.0	52.4	59.1	43.8	66.7	
INCREASED	16.0	50.0	4.8	18.2	23.4	5.6	
INCREASED DRAMATICALLY	1.9	0.0	0.0	0.0	3.1	0.0	
NO OPINION	9.6	0.0	19.0	9.1	6.3	0.0	

TABLE 55. (Q24) PERCEPTIONS OF NON-BEAR HUNTERS REGARDING TRENDS IN NUMBER OF BEARS, 1998-99 (PCT).

	STATEWIDE	1	2	3	4	5	REGIONS
DECLINED DRAMATICALLY	2.6	0.5	3.6	4.1	2.8	2.8	
DECLINED	5.6	0.9	3.9	8.4	8.8	3.5	
REMAINED THE SAME	23.4	14.9	21.4	30.7	32.1	18.7	
INCREASED	8.1	4.5	7.5	10.8	13.3	5.7	
INCREASED DRAMATICALLY	0.1	0.9	0.6	3.0	0.0	0.4	
NO OPINION	59.5	78.4	63.1	42.9	43.0	68.9	

TABLE 56. (Q25) OPINIONS OF BEAR HUNTERS REGARDING HOW TO MANAGE THE BEAR POPULATION, 1998-99 (PCT).

RESPONSE	STATEWIDE	REGIONS				
		1	2	3	4	5
INCREASE POPULATION	59.1	0.0	76.2	59.1	57.8	77.8
STABILIZE POPULATION	28.6	0.0	14.3	27.3	29.7	22.2
DECREASE POPULATION	1.9	0.0	0.0	0.0	3.1	0.0
NO OPINION	10.4	100.0	9.5	13.6	9.4	0.0

TABLE 57. (Q25) OPINIONS OF NON-BEAR HUNTERS REGARDING HOW TO MANAGE THE BEAR POPULATION, 1998-99 (PCT).

RESPONSE	STATEWIDE	REGIONS				
		1	2	3	4	5
INCREASE POPULATION	29.5	18.2	31.3	35.3	34.4	26.5
STABILIZE POPULATION	12.7	4.4	8.0	20.3	20.2	11.3
DECREASE POPULATION	2.0	2.2	2.2	2.7	2.0	1.4
NO OPINION	55.8	75.1	58.5	41.7	43.3	60.8

TABLE 58. (Q26) PERCEPTIONS OF HUNTERS REGARDING QUALITY OF OVERALL MANAGEMENT OF BEARS BY VDGIF.*

	STATEWIDE	REGIONS				
		1	2	3	4	5
BEAR HUNTERS	3.89	5.50	4.00	3.52	3.79	4.33
NON-BEAR HUNTERS	3.91	4.27	3.89	3.88	3.85	4.01

* MEAN SCORES, WHERE 1=POOR, 4=ADEQUATE, 7=EXCELLENT

TABLE 59. (Q27) PERCENTAGE OF BOBCATS KILLED WHILE HUNTING.

STATEWIDE		
DEER DURING REGULAR GUN SEASON	51.85	
FOR OTHER GAME	18.52	
SPECIFICALLY FOR BOBCAT	29.63	

TABLE 60. (Q28) PERCENTAGE OF COYOTES KILLED WHILE HUNTING.

STATEWIDE		
DEER DURING REGULAR GUN SEASON	38.46	
FOR OTHER GAME	21.15	
SPECIFICALLY FOR COYOTE	40.38	

TABLE 61. (Q29) PERCENTAGE OF FOXES KILLED WHILE HUNTING.

STATEWIDE		
DEER DURING REGULAR GUN SEASON	22.94	
FOR OTHER GAME	14.69	
SPECIFICALLY FOR FOX	62.37	

TABLE 62. (Q31) STATEWIDE AND REGIONAL SUMMARIES OF DAYS SPENT SQUIRREL HUNTING DURING TWO SEGMENTS OF THE 1998-99 SEASON (MEAN DAYS).

	STATEWIDE	REGIONS				
		1	2	3	4	5
OPENING DAY - OCT. 24 1998	4.74	4.38	5.15	5.29	4.63	3.83
OCT. 26, 1998 - CLOSING DAY	5.13	4.53	4.73	7.42	4.65	5.11

TABLE 63. (Q32) PREFERENCES OF SQUIRREL HUNTERS REGARDING OPTIONS FOR OPENING DATE OF SQUIRREL SEASON.*

	STATEWIDE	REGIONS				
		1	2	3	4	5
1ST SAT. IN SEPTEMBER	3.85	3.36	3.92	4.38	3.65	3.91
2ND SAT. IN OCTOBER	3.51	3.91	3.48	3.15	3.97	3.72

* MEAN SCORES, WHERE 1=STRONGLY OPPOSE, 4=DOES NOT MATTER, 7=STRONGLY FAVOR

TABLE 64. (Q33) PERCENTAGE OF BEAR HUNTERS UTILIZING SELECTED METHODS/SEASONS (PCT).

RESPONSE	STATEWIDE	REGIONS				
		1	2	3	4	5
ARCHERY SEASON	41.3	0.0	52.6	35.7	51.2	38.5
GUN W/O DOGS	82.8	100.0	73.7	82.4	88.5	93.3
GUN USING DOGS	40.2	0.0	47.4	41.2	36.6	20.0

TABLE 65. (Q34) OPINIONS OF DEER (GUN) HUNTERS REGARDING THE REDUCTION IN HARVEST OF ANTLERED BUCKS.*

	STATEWIDE	REGIONS				
		1	2	3	4	5
	4.44	4.42	4.36	4.54	4.62	4.29

* MEAN SCORES, WHERE 1=STRONGLY OPPOSE, 4=DOES NOT MATTER, 7=STRONGLY FAVOR

TABLE 66. (Q35) PREFERENCES OF DEER (GUN) HUNTERS REGARDING APPROACHES TO REGULATING HARVEST OF ANTLERED BUCKS.*

	STATEWIDE	1	2	3	REGIONS	4	5
15 INCH OUTSIDE ANTLER SPREAD	2.84	3.25	2.85	2.66	2.60	2.81	
4 POINTS ON ONE SIDE	3.38	3.25	3.45	3.28	3.32	3.32	
REDUCE YEARLY LIMIT FROM 2 TO 1 BUCK	3.65	2.98	3.36	4.14	4.19	3.57	

* MEAN SCORES, WHERE 1=STRONGLY OPPOSE, 4=DOES NOT MATTER, 7=STRONGLY FAVOR

TABLE 67. (Q 36) STATEWIDE AND REGIONAL SUMMARIES OF AVERAGE SEASONAL HARVEST OF BUTTON BUCKS DURING 1998-99 SEASON.

	STATEWIDE	1	2	3	REGIONS	4	5
	0.102	0.118	0.095	0.086	0.116	0.085	

TABLE 68. (Q37) STATEWIDE AND REGIONAL DISTRIBUTION OF HUNTERS THAT HUNTED WITH A MUZZLELOADER DURING THE 1998-99 MUZZLELOADER SEASON (PCT YES).

RESPONSE	STATEWIDE	1	2	3	REGIONS	4	5
USED SCOPE	62.7	66.7	57.5	66.8	65.1	58.2	
USED IN-LINE MUZZLELOADER	69.0	72.4	67.6	72.0	64.7	68.0	
USED FLINTLOCK MUZZLELOADER	17.4	14.2	22.8	17.6	14.0	12.7	

TABLE 69. (Q38) OPINIONS OF MUZZLELOADER DEER HUNTERS VS. OTHER DEER HUNTERS REGARDING DESIGNATING CERTAIN AREAS FOR PRIMITIVE MUZZLELOADING HUNTERS ONLY.

	STATEWIDE	1	2	3	REGIONS	4	5
MUZZLELOADER DEER HUNTERS	3.33	2.76	3.40	3.13	3.80	3.35	
OTHER DEER HUNTERS	3.67	3.44	3.64	3.44	3.94	3.87	

* MEAN SCORES, WHERE 1=STRONGLY OPPOSE, 4=DOES NOT MATTER, 7=STRONGLY FAVOR

TABLE 70. (Q39) OPINIONS OF MUZZLELOADER DEER HUNTERS VS. OTHER DEER HUNTERS REGARDING REPLACING 3 DAYS OF THE EARLY MUZZLELOADING SEASON WITH A PRIMITIVE MUZZLELOADING SEASON.

	STATEWIDE	1	2	3	REGIONS	4	5
MUZZLELOADER DEER HUNTERS	3.33	2.90	3.42	3.30	3.47	3.23	
OTHER DEER HUNTERS	3.71	3.52	3.75	3.54	3.77	3.84	

* MEAN SCORES, WHERE 1=STRONGLY OPPOSE, 4=DOES NOT MATTER, 7=STRONGLY FAVOR

TABLE 71. (Q40) OPINIONS OF MUZZLELOADER DEER HUNTERS VS. OTHER DEER HUNTERS REGARDING REPLACING 3 DAYS OF THE LATE MUZZLELOADING SEASON WEST OF THE BLUE RIDGE WITH A PRIMITIVE MUZZLELOADING SEASON.

	STATEWIDE	3	4	REGIONS
MUZZLELOADER	3.57		3.34	3.59
OTHER	3.83		3.69	3.96

* MEAN SCORES, WHERE 1=STRONGLY OPPOSE, 4=DOES NOT MATTER, 7=STRONGLY FAVOR

TABLE 72. (Q41) MEAN NUMBER OF ANIMALS SEEN BY ARCHERY DEER HUNTERS IN 1998-99 BY REGION.

SPECIES	STATEWIDE	1	2	3	4	5	REGIONS
BEAR	0.23	0.08	0.16	0.29	0.31	0.28	
BOBCAT	0.23	0.14	0.30	0.27	0.22	0.15	
RED FOX	1.37	1.33	0.93	0.69	1.57	2.43	
GRAY FOX	1.39	1.77	2.16	0.66	1.81	1.08	
MINK	0.07	0.06	0.02	0.03	0.19	0.09	
WEASEL	0.06	0.03	0.09	0.07	0.02	0.06	
RACCOON	1.59	2.44	1.89	1.39	1.45	1.08	
COYOTE	0.13	0.04	0.05	0.28	0.13	0.12	
RIVER OTTER	0.18	0.59	0.22	0.04	0.06	0.17	
TURKEY	12.94	12.20	18.46	11.73	13.29	8.44	
GROUSE	2.21	0.41	0.98	3.99	3.46	1.13	

TABLE 73. (Q43) PERCEPTIONS OF DEER HUNTERS REGARDING OVERALL QUALITY OF GUN DEER HUNTING DURING 1998-99.*

	STATEWIDE	1	2	3	REGIONS	4	5
	3.71	4.07	3.77	3.42		3.51	3.88

* MEAN SCORES, WHERE 1=POOR, 4=ADEQUATE, 7=EXCELLENT

TABLE 74. (Q44) OPINIONS OF GUN - DEER HUNTERS REGARDING THE APPROPRIATE POLICY REGARDING DOE DAYS (PCT).

	STATEWIDE	1	2	3	REGIONS	4	5
INCREASE DAYS	32.8	31.8	29.7	34.6		34.0	33.1
KEEP DAYS THE SAME	48.3	51.3	48.9	43.4		49.5	51.0
DECREASE DAYS	17.2	12.6	20.1	19.9		15.2	15.2
NO OPINION	1.7	4.2	1.4	2.1		1.3	0.1

TABLE 75. (Q45) STATEWIDE AND REGIONAL SUMMARIES OF DISTRIBUTION OF HUNTING ON OPENING DAY OF SPRING 1999 TURKEY SEASON (PCT).

	STATEWIDE	1	2	3	REGIONS	4	5
YES	71.0	69.7	71.7	67.4		78.8	69.5
NO	29.0	30.3	28.3	32.6		21.3	30.5

TABLE 76. (Q46) PERCEPTIONS OF SPRING TURKEY HUNTERS REGARDING OVERALL QUALITY OF THE 1999 SPRING TURKEY SEASON.*

	STATEWIDE	1	2	3	REGIONS	4	5
	4.00	4.47	4.15	3.64		3.96	3.85

* MEAN SCORES, WHERE 1=POOR, 4=ADEQUATE, 7=EXCELLENT

TABLE 77. (Q48) PERCEPTIONS OF FALL TURKEY HUNTERS REGARDING OVERALL QUALITY OF 1998 FALL TURKEY SEASON.*

	STATEWIDE	REGIONS				
		1	2	3	4	5
	3.80	4.00	4.04	3.60	3.55	3.70

* MEAN SCORES, WHERE 1=POOR, 4=ADEQUATE, 7=EXCELLENT

TABLE 78. (Q49) STATEWIDE AND REGIONAL DISTRIBUTION OF FALL TURKEY HUNTING ACROSS EIGHT TYPES OF LAND DURING THE 1998 HUNTING SEASON (PCT).

TYPE	STATEWIDE	REGIONS				
		1	2	3	4	5
VDGIF WMA	2.95	0.94	2.19	3.69	3.18	3.17
NATIONAL FORESTS	18.94	2.52	7.21	33.18	38.79	11.49
PRIVATE LAND	53.57	63.45	58.91	55.94	32.34	54.04
CORPORATE LAND	3.00	3.31	2.70	1.98	6.45	2.46
HUNT CLUB - PVT. LAND	13.35	13.75	17.88	4.95	12.32	18.87
HUNT CLUB - CORP. LAND	6.51	12.51	9.85	0.00	6.74	5.16
MILITARY LAND	0.98	3.46	0.00	0.00	0.00	4.10
OTHER	0.70	0.06	1.26	0.26	0.19	0.70

TABLE 79. (Q50 & Q51) STATEWIDE SUMMARY OF TURKEY HUNTERS' PERCEPTIONS OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS DURING FALL 1998.*

ATTRIBUTE	IMPORTANCE	PERFORMANCE	SATISFACTION DIFFERENCE
A. GET AWAY - CIVILIZATION	5.21	5.43	0.22
B. CLOSE TO NATURE	5.76	5.92	0.16
C. GET AWAY - PROBLEMS	5.46	5.74	0.28
D. USE HUNTING EQUIPMENT	5.20	4.84	-0.36
E. SCOUTING TIME	5.26	4.57	-0.69
F. PATTERN SHOTGUN	4.09	3.81	-0.28
G. WATCH TELEVISION PROGRAMS	3.41	3.31	-0.10
H. READ MAGAZINES	3.57	3.42	-0.15
I. ATTEND SEMINARS	2.96	2.31	-0.65
J. SEE TURKEYS	5.73	4.57	-1.16
K. HEAR TURKEYS	5.77	4.66	-1.11
L. SEE/HEAR OTHER WILDLIFE	5.52	5.02	-0.50
M. SEE FEW HUNTERS	5.64	4.75	-0.89
N. FEEL SAFE	6.42	5.61	-0.81
O. BE WITH FRIENDS	4.86	4.99	0.13
P. TEACH SKILLS	4.86	3.86	-1.00
Q. CALL TURKEYS	5.31	4.35	-0.96
R. HUNT WITH DOGS	1.99	1.81	-0.18
S. COMBINE WITH OTHER SPECIES	4.18	3.93	-0.25
T. GETTING A SHOT	4.99	4.59	-0.40

* MEAN SCORES, WHERE 1= NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4= NICE BUT NOT ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

TABLE 80. (Q50 & Q51) REGION 1 SUMMARY OF TURKEY HUNTERS' PERCEPTIONS OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS DURING FALL 1998.*

ATTRIBUTE	IMPORTANCE	PERFORMANCE	SATISFACTION DIFFERENCE
A. GET AWAY - CIVILIZATION	5.02	5.49	0.47
B. CLOSE TO NATURE	5.67	5.92	0.25
C. GET AWAY - PROBLEMS	5.19	5.49	0.30
D. USE HUNTING EQUIPMENT	5.25	4.89	-0.36
E. SCOUTING TIME	5.33	4.65	-0.68
F. PATTERN SHOTGUN	4.48	4.14	-0.34
G. WATCH TELEVISION PROGRAMS	3.57	3.56	-0.01
H. READ MAGAZINES	3.92	3.81	-0.11
I. ATTEND SEMINARS	3.42	2.84	-0.58
J. SEE TURKEYS	5.67	4.82	-0.85
K. HEAR TURKEYS	5.81	4.92	-0.89
L. SEE/HEAR OTHER WILDLIFE	5.48	5.24	-0.24
M. SEE FEW HUNTERS	5.78	4.97	-0.81
N. FEEL SAFE	6.24	5.66	-0.58
O. BE WITH FRIENDS	4.87	5.31	0.44
P. TEACH SKILLS	4.64	4.00	-0.64
Q. CALL TURKEYS	5.73	4.74	-0.99
R. HUNT WITH DOGS	2.21	2.19	-0.02
S. COMBINE WITH OTHER SPECIES	3.25	3.57	0.32
T. GETTING A SHOT	4.94	4.80	-0.14

* MEAN SCORES, WHERE 1= NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4= NICE BUT NOT ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

TABLE 81. (Q50 & Q51) REGION 2 SUMMARY OF TURKEY HUNTERS' PERCEPTIONS OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS DURING FALL 1998.*

ATTRIBUTE	IMPORTANCE	PERFORMANCE	SATISFACTION DIFFERENCE
A. GET AWAY - CIVILIZATION	5.10	5.26	0.16
B. CLOSE TO NATURE	5.52	5.89	0.37
C. GET AWAY - PROBLEMS	5.35	5.67	0.32
D. USE HUNTING EQUIPMENT	5.09	4.79	-0.30
E. SCOUTING TIME	5.14	4.54	-0.60
F. PATTERN SHOTGUN	3.90	3.56	-0.34
G. WATCH TELEVISION PROGRAMS	3.39	3.20	-0.19
H. READ MAGAZINES	3.50	3.38	-0.12
I. ATTEND SEMINARS	2.90	2.31	-0.59
J. SEE TURKEYS	5.67	4.89	-0.78
K. HEAR TURKEYS	5.67	4.88	-0.79
L. SEE/HEAR OTHER WILDLIFE	5.48	5.08	-0.40
M. SEE FEW HUNTERS	5.56	4.81	-0.75
N. FEEL SAFE	6.39	5.62	-0.77
O. BE WITH FRIENDS	4.72	4.97	0.25
P. TEACH SKILLS	4.86	4.01	-0.85
Q. CALL TURKEYS	5.37	4.41	-0.96
R. HUNT WITH DOGS	2.02	1.90	-0.12
S. COMBINE WITH OTHER SPECIES	4.32	4.32	0.00
T. GETTING A SHOT	4.89	5.10	0.21

* MEAN SCORES, WHERE 1= NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4= NICE BUT NOT ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

TABLE 82. (Q50 & Q51) REGION 3 SUMMARY OF TURKEY HUNTERS' PERCEPTIONS OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS DURING FALL 1998.*

ATTRIBUTE	IMPORTANCE	PERFORMANCE	SATISFACTION DIFFERENCE
A. GET AWAY - CIVILIZATION	5.25	5.44	0.19
B. CLOSE TO NATURE	5.69	5.88	0.19
C. GET AWAY - PROBLEMS	5.29	5.68	0.39
D. USE HUNTING EQUIPMENT	5.22	4.84	-0.38
E. SCOUTING TIME	5.33	4.66	-0.67
F. PATTERN SHOTGUN	4.19	4.01	-0.18
G. WATCH TELEVISION PROGRAMS	3.59	3.58	-0.01
H. READ MAGAZINES	3.54	3.55	0.01
I. ATTEND SEMINARS	3.13	2.29	-0.84
J. SEE TURKEYS	5.78	4.43	-1.35
K. HEAR TURKEYS	5.86	4.55	-1.31
L. SEE/HEAR OTHER WILDLIFE	5.53	4.96	-0.57
M. SEE FEW HUNTERS	5.68	4.56	-1.12
N. FEEL SAFE	6.46	5.63	-0.83
O. BE WITH FRIENDS	4.83	4.77	-0.06
P. TEACH SKILLS	4.77	3.66	-1.11
Q. CALL TURKEYS	5.23	4.33	-0.9
R. HUNT WITH DOGS	1.79	1.48	-0.31
S. COMBINE WITH OTHER SPECIES	4.11	3.36	-0.75
T. GETTING A SHOT	5.23	4.34	-0.89

* MEAN SCORES, WHERE 1= NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4= NICE BUT NOT ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

TABLE 83. (Q50 & Q51) REGION 4 SUMMARY OF TURKEY HUNTERS' PERCEPTIONS OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS DURING FALL 1998.*

ATTRIBUTE	IMPORTANCE	PERFORMANCE	SATISFACTION DIFFERENCE
A. GET AWAY - CIVILIZATION	5.51	5.64	0.13
B. CLOSE TO NATURE	5.96	6.03	0.07
C. GET AWAY - PROBLEMS	5.61	5.98	0.37
D. USE HUNTING EQUIPMENT	5.32	4.99	-0.33
E. SCOUTING TIME	5.34	4.49	-0.85
F. PATTERN SHOTGUN	3.90	3.74	-0.16
G. WATCH TELEVISION PROGRAMS	3.06	3.25	0.19
H. READ MAGAZINES	3.32	3.34	0.02
I. ATTEND SEMINARS	2.56	2.17	-0.39
J. SEE TURKEYS	5.73	4.41	-1.32
K. HEAR TURKEYS	5.79	4.57	-1.22
L. SEE/HEAR OTHER WILDLIFE	5.61	4.82	-0.79
M. SEE FEW HUNTERS	5.56	4.81	-0.75
N. FEEL SAFE	6.40	5.63	-0.77
O. BE WITH FRIENDS	5.20	5.24	0.04
P. TEACH SKILLS	4.80	3.86	-0.94
Q. CALL TURKEYS	5.12	4.38	-0.74
R. HUNT WITH DOGS	1.73	1.74	0.01
S. COMBINE WITH OTHER SPECIES	4.22	3.75	-0.47
T. GETTING A SHOT	4.94	4.31	-0.63

* MEAN SCORES, WHERE 1= NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4= NICE BUT NOT ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

TABLE 84. (Q50 & Q51) REGION 5 SUMMARY OF TURKEY HUNTERS' PERCEPTIONS OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS DURING FALL 1998.*

ATTRIBUTE	IMPORTANCE	PERFORMANCE	SATISFACTION DIFFERENCE
A. GET AWAY - CIVILIZATION	5.27	5.41	0.14
B. CLOSE TO NATURE	5.97	5.90	-0.07
C. GET AWAY - PROBLEMS	5.81	5.85	0.04
D. USE HUNTING EQUIPMENT	5.44	5.01	-0.43
E. SCOUTING TIME	5.48	4.63	-0.85
F. PATTERN SHOTGUN	4.29	3.84	-0.45
G. WATCH TELEVISION PROGRAMS	3.43	3.19	-0.24
H. READ MAGAZINES	3.78	3.37	-0.41
I. ATTEND SEMINARS	2.97	2.13	-0.84
J. SEE TURKEYS	5.89	4.32	-1.57
K. HEAR TURKEYS	5.90	4.46	-1.44
L. SEE/HEAR OTHER WILDLIFE	5.58	5.15	-0.43
M. SEE FEW HUNTERS	5.73	4.76	-0.97
N. FEEL SAFE	6.50	5.53	-0.97
O. BE WITH FRIENDS	4.92	5.04	0.12
P. TEACH SKILLS	4.97	3.69	-1.28
Q. CALL TURKEYS	5.44	4.24	-1.2
R. HUNT WITH DOGS	2.46	1.93	-0.53
S. COMBINE WITH OTHER SPECIES	4.20	4.29	0.09
T. GETTING A SHOT	5.01	4.29	-0.72

* MEAN SCORES, WHERE 1= NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4= NICE BUT NOT ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

**TABLE 85. (Q50) STATEWIDE AND REGIONAL SUMMARIES OF TURKEY HUNTERS' PERCEPTIONS
OF THE IMPORTANCE OF SELECTED ATTRIBUTES ASSOCIATED WITH HUNTING TURKEYS
DURING FALL 1998.***

ATTRIBUTE	STATEWIDE	REGIONS				
		1	2	3	4	5
U. BAGGING A TURKEY	4.90	4.84	4.82	5.15	4.85	4.91
V. BAGGING A LIMIT	3.95	4.11	3.86	4.07	3.91	4.03
W. THOUGHT OF AS SKILLED	4.18	4.41	4.08	4.21	4.33	4.30
X. SHOWING TURKEY	3.97	3.92	3.90	4.03	4.02	4.08
Y. EATING TURKEY	4.84	4.48	4.79	5.01	4.98	4.79
Z. DISPLAYING TROPHY	3.88	4.06	3.87	3.90	4.07	3.79

* MEAN SCORES, WHERE 1=NOT AT ALL ESSENTIAL FOR EXCELLENCE, 4=NICE BUT NOT
ESSENTIAL, 7= ABSOLUTELY ESSENTIAL FOR EXCELLENCE

TABLE 86. (Q52-55) SELECTED DEMOGRAPHICS OF ALL RESPONDENTS.

DEMOGRAPHIC	RESPONSE					
AGE (MEAN YEARS)	43.51					
MARITAL STATUS (PCT)						
NEVER MARRIED	12.8					
MARRIED	75.4					
DIVORCED	9.1					
SEPARATED	1.5					
WIDOWED	1.2					
AGE WHEN FIRST HUNTED	12.73					
GENDER (PCT)						
MALE	97.6					
FEMALE	2.4					

TABLE 87. (Q56) RESPONSES OF HUNTERS REGARDING THE PERSON WHO TAUGHT THEM HOW TO HUNT (PCT).

PERSON	RESPONSE
FATHER	57.0
SPOUSE	1.0
MOTHER	0.2
UNCLE/AUNT	6.9
BROTHER/SISTER	4.6
GRANDPARENT	4.1
FRIEND	11.3
LEARNED ON OWN	14.8

TABLE 88. (Q57) RESPONSES OF HUNTERS REGARDING GAME SPECIES FIRST HUNTED (PCT).

PERSON	RESPONSE
DEER	23.4
SQUIRREL	52.2
QUAIL	2.5
RABBIT	12.4
DOVE	3.4
TURKEY	1.2
DUCKS/GEESE	1.3
RACCOON	0.5
GROUNDHOG	1.9
OTHER	1.0

TABLE 89. (Q58) RESPONSES OF HUNTERS REGARDING INTRODUCING A YOUNG PERSON TO HUNTING AND GAME SPECIES HUNTED (PCT).

INTRODUCED YOUNG PERSON ? (< 18 YEARS) (PCT. YES)	55.6			
SPECIES	RESPONSE			
DEER	66.1			
SQUIRREL	20.4			
QUAIL	1.1			
RABBIT	2.7			
DOVE	3.4			
TURKEY	2.8			
DUCKS/GEESE	1.1			
RACCOON	0.5			
GROUNDHOG	1.4			
OTHER	0.5			

TABLE 90. (Q59-60) STATEWIDE SUMMARY OF CURRENT AND CHILDHOOD RESIDENCES OF ALL HUNTERS, 1998-99 (PCT).

TYPE OF RESIDENCE	CURRENT RESIDENCE	CHILDHOOD RESIDENCE
FARM	15.7	29.2
RURAL, BUT NOT FARM	46.0	37.9
TOWN (LESS THAN 50,000 POP.)	15.7	15.7
URBAN CITY (OVER 50,000 POP.)	9.5	8.3
SUBURBAN (ADJACENT TO CITY OVER 50,000 POP.)	13.1	8.8

TABLE 91. (Q61-61A) STATEWIDE SUMMARY OF LAND OWNERSHIP SUITABLE FOR HUNTING 1998-99.

RESPONSE	STATEWIDE	<u>REGIONS</u>				
		1	2	3	4	5
OWN LAND? (PCT)						
YES	31.6	28.4	36.5	32.4	29.9	28.6
NO	68.4	71.6	63.5	67.6	70.1	71.4
NUMBER OF ACRES (MEAN)	42.78	53.72	47.30	37.35	39.44	38.84

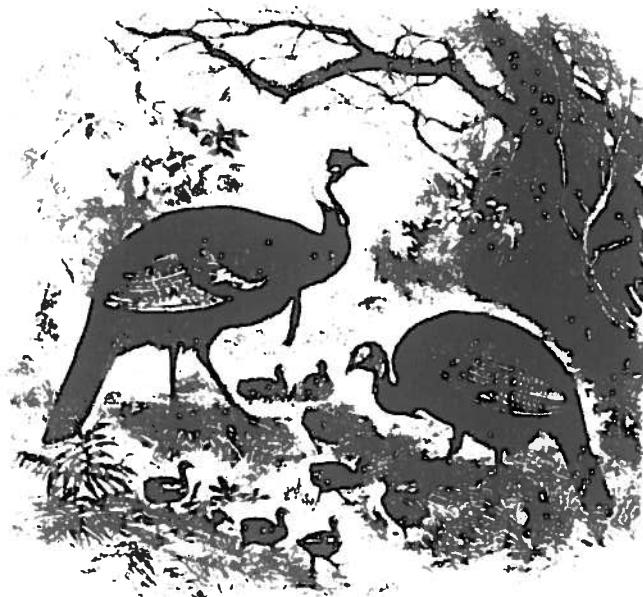
References

- Cochran, W.G. 1977. Sampling techniques. 3rd ed. New York: John Wiley and Sons, Inc. 428 pp.
- Davis, D.E. and R.L. Winstead. 1980. Estimating the numbers of wildlife populations. Pages 221-246 in S.D. Schemnitz, ed. Wildlife management techniques manual. 4th ed. Washington, DC: The Wildlife Society. 686 pp.
- Dillman, D.A. 1978. Mail and telephone surveys: the total design method. New York: John Wiley and Sons, Inc. 321 pp.
- Filion, F.L. 1980. Human surveys in wildlife management. Pages 441-453 in S.D. Schemnitz, ed. Wildlife management techniques manual. 4th ed. Washington, DC: The Wildlife Society. 686 pp.
- Jackson, R. and R. Norton. 1979. Improving ethical behavior in hunters. Trans. N. Amer. Wildlife and Natural Resources Conference. 44:306-318 pp.
- Steffen, D.E. 1987. Mississippi mail survey of game harvest and hunter effort for 1986-87. Jackson, MS: Dept. of Wildlife Conservation. 49 pp.
- Wright, B.A. 1995. Virginia survey of hunter harvest, effort and attitudes 1993-94. Richmond, VA: Department of Game & Inland Fisheries. 80 pp.
- Wright, B.A. and M.R. McFarland. 1996. Virginia survey of hunter harvest, effort and attitudes 1994-1995. Richmond, VA: Department of Game & Inland Fisheries. 78 pp.
- Wright, B.A. and N.D. Emerald. 1997. Virginia survey of hunter harvest, effort, and attitudes 1995-96. Richmond, VA: Department of Game & Inland Fisheries. 74 pp.
- Wright, B.A. and N.D. Emerald. 1998. Virginia survey of hunter harvest, effort, and attitudes 1996-97. Richmond, VA: Department of Game & Inland Fisheries. 74 pp.
- Wright, B.A. and N.D. Emerald. 1999. Virginia survey of hunter harvest, effort, and attitudes 1997-98. Richmond, VA: Department of Game & Inland Fisheries. 74 pp.

Appendix

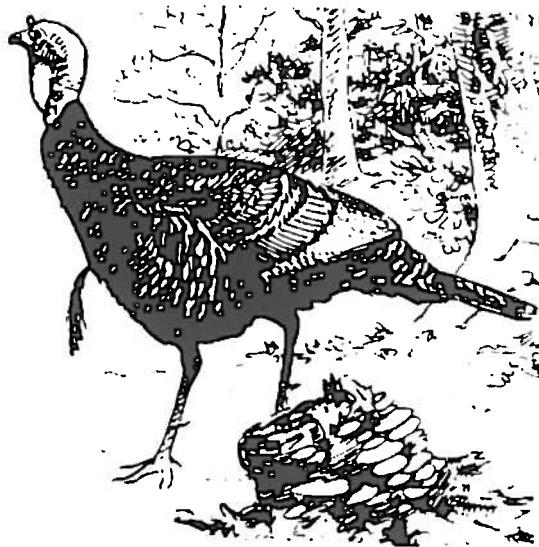
1998-99

Virginia Hunter Survey



Virginia Department of Game and Inland Fisheries
and George Mason University

VIRGINIA DEPARTMENT OF
GAME AND INLAND FISHERIES
HUNTER QUESTIONNAIRE



Please answer each of the following questions completely. All responses to questions will be kept in strictest confidence. Results from this study will be reported only in an aggregate total, never attributed to any individual.

1. Did you purchase a Virginia resident hunting license for the 1998-99 hunting season (July 1, 1998 - June 30, 1999)?
 Yes
 No (If no, do not go further. Please fold the questionnaire, place it in the return envelope, and return it as soon as possible.)

2. What type of license(s) did you purchase? (Check all that apply.)
 State resident license (allowing you to hunt statewide)
 County/City license (allowing you to hunt only in the county/city where purchased)
 Senior license (for residents 65 years or older)
 Big game license (deer, bear, and turkey permit)
 Other (please specify) _____

On the next page, we would like information regarding the number of game animals you harvested during the 1998-99 hunting season.

INSTRUCTIONS:

- Put the number of animals you **harvested personally** in 1998-99 in each of the boxes below. Be as accurate as possible.
- Do not include game taken by anyone other than you.
- If you hunted an animal, but were unsuccessful, place a zero (0) in the space.
- If you did not hunt a particular animal, leave the space blank.

3. Small Game (Birds) Harvest:

Dove	Quail	Woodcock	Ruffed Grouse	Crow

4. Small Game (Mammals) Harvest:

Rabbit	Gray Squirrel	Fox Squirrel	Groundhog/Woodchuck

5. Big Game Harvest:

Deer						Turkey			Bear
Archery		Muzzleloader		Gun		Spring 1998	Fall 1998	Spring 1999	Bear
Bucks	Does	Bucks	Does	Bucks	Does				

6. Waterfowl Harvest:

Ducks				Geese	
Mallard	Wood	Black	All Others	Sept. Season	Nov.-Mar. Season

7. Furbearer Harvest:

Red Fox	Gray Fox	Coyote	Raccoon	Bobcat

Next, we would like to know more about the time you spent afield. Below, please indicate the number of days in which each species was the primary animal you hunted. Count partial days as 1 day hunted.

8. Small Game (Birds) Days Hunted:

Dove	Quail	Woodcock	Ruffed Grouse	Crow

9. Small Game (Mammals) Days Hunted:

Rabbit	Gray Squirrel	Fox Squirrel	Groundhog/Woodchuck

10. Big Game Days Hunted:

Deer			Turkey			Bear
Archery	Muzzleloader	Gun	Spring '98	Fall '98	Spring '99	

11. Waterfowl Days Hunted:

Ducks	Geese	
	Sept. Season	Nov.-Mar. Season

12. Furbearer Days Hunted:

Red Fox	Gray Fox	Coyote	Raccoon	Bobcat

Using the map at the bottom of this page, indicate the region of the state where you most often hunted each species by placing the number corresponding to that region in the space provided. If you did not hunt an animal, leave the space blank.

13. Small Game (Birds) Region Hunted:

Dove	Quail	Woodcock	Ruffed Grouse	Crow

14. Small Game (Mammals) Region Hunted:

Rabbit	Gray Squirrel	Fox Squirrel	Groundhog/Woodchuck

15. Big Game Region Hunted:

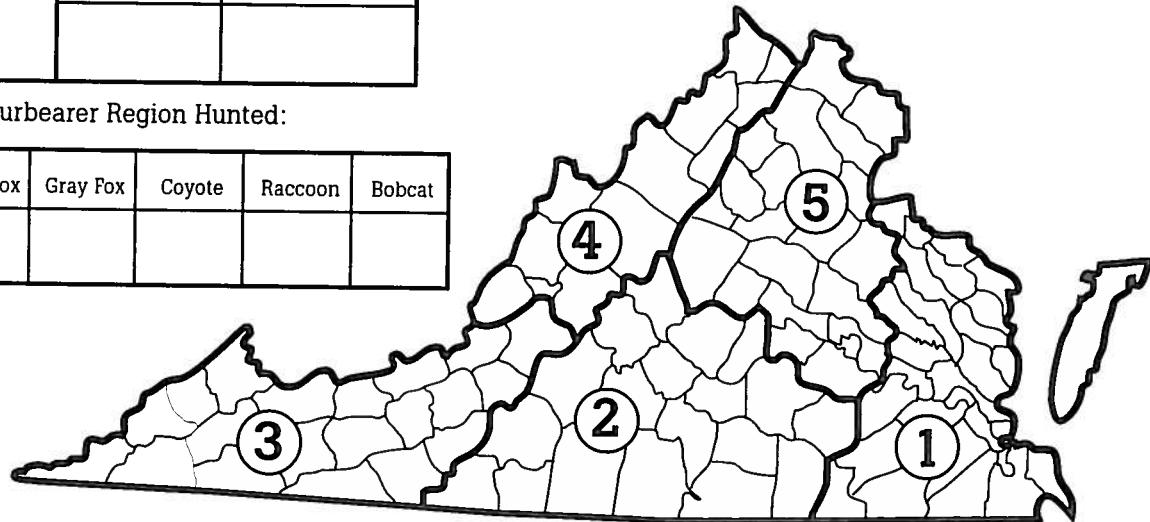
Deer			Turkey			Bear
Archery	Muzzleloader	Gun	Spring '98	Fall '98	Spring '99	

16. Waterfowl Region Hunted:

Ducks	Geese	
	Sept. Season	Nov.-Mar. Season

17. Furbearer Region Hunted:

Red Fox	Gray Fox	Coyote	Raccoon	Bobcat



The next few questions ask your views regarding managing DEER, BEAR and TURKEY, regardless of the species you hunted.

18. When compared to previous years, would you say the number of DEER in the area you hunted in 1998-99: (✓ Check only one).
- Declined dramatically
 - Declined
 - Remained about the same
 - Increased
 - Increased dramatically
 - No opinion
19. What advice would you give the Department regarding how to manage the DEER HERD? (✓ Check only one).
- Increase the herd
 - Stabilize the herd
 - Decrease the herd
 - No Opinion
20. How would you rate the size of the TURKEY POPULATION in the area in which you hunted most in 1998-99:

Low	Moderate				High	No Opinion
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

21. When compared to previous years, would you say the number of TURKEYS in the area you hunted in 1998-99: (✓ Check only one).
- Declined dramatically
 - Declined
 - Remained about the same
 - Increased
 - Increased dramatically
 - No opinion
22. What advice would you give the Department regarding how to manage the TURKEY POPULATION? (✓ Check only one).
- Increase the population
 - Stabilize the population
 - Decrease the population
 - No Opinion

23. How would you rate the size of the BEAR POPULATION in the area in which you hunted most in 1998-99:

Low	Moderate	High	No Opinion
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

24. When compared to previous years, would you say the number of BEARS in the area you hunted in 1998-99: (Check only one).

- Declined dramatically
- Declined
- Remained about the same
- Increased
- Increased dramatically
- No opinion

25. What advice would you give the Department regarding how to manage the BEAR POPULATION? (Check only one).

- Increase the population
- Stabilize the population
- Decrease the population
- No Opinion

26. Overall, how would you rate the management of BEARS by the Department of Game and Inland Fisheries?

Poor	Adequate	Excellent
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<input type="checkbox"/> 7		

27. If you killed a BOBCAT during any of the 1998-99 hunting seasons, how many did you kill while:

- a. deer hunting during the regular gun season? _____ bobcats
- b. hunting for other game? _____ bobcats
- c. hunting specifically for bobcats? _____ bobcats

28. If you killed a COYOTE during any of the 1998-99 hunting seasons, how many did you kill while:

- a. deer hunting during the regular gun season? _____ coyotes
- b. hunting for other game? _____ coyotes
- c. hunting specifically for coyotes? _____ coyotes

29. If you killed a FOX during any of the 1998-99 hunting seasons, how many did you kill while:

- a. deer hunting during the regular gun season? _____ foxes
- b. hunting for other game? _____ foxes
- c. hunting specifically for foxes? _____ foxes

The next three questions pertain to SQUIRREL hunting. (If you did not hunt SQUIRRELS during the 1998-99 season, skip to question #33).

30. Please indicate the county where you most often hunted SQUIRRELS during 1998-99.

_____ County.

31. During the 1998-99 SQUIRREL season, how many days did you hunt between:

- a. Opening day – October 24, 1998? _____ days
b. October 26, 1998 – Closing day? _____ days

32. If you were able to choose the OPENING DATE OF SQUIRREL SEASON, please indicate the degree to which you favor or oppose each of the following opening date options:

	Strongly Oppose	Does Not Matter	Strongly Favor
a. First Saturday in September	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. Second Saturday in October	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

The next question pertains to BEAR hunting in 1998-99.

(If you did not hunt BEARS during the 1998-99 season, skip to question #34).

33. During the 1998-99 BEAR season, did you:

- a. Hunt during the BEAR Archery Season? Yes No
b. Hunt with a GUN WITHOUT DOGS? Yes No
c. Hunt with a GUN USING DOGS? Yes No

Next, we would like your views regarding DEER hunting. (If you did not hunt DEER during the 1998-99 season, skip to question #45).

34. Please indicate the degree to which you would favor or oppose a reduction in the harvest of antlered bucks so that more bucks in the population will become older and larger.:.

Strongly Oppose	Does Not Matter	Strongly Favor
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

35. If you were asked to help set regulations to reduce the antlered buck harvest in the area where you hunt, to what extent would you favor or oppose each of the following approaches:

Strongly Oppose	Does Not Matter	Strongly Favor
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

36. How many "button bucks" (where the antler has not yet broken the hairline) did you harvest during the TOTAL 1998-99 DEER season?

_____ button bucks

37. If you hunted during a special muzzleloader deer season during 1998-99, did you:

- a. use a scope on your muzzleloader? Yes No
b. use an "in-line" muzzleloader? Yes No
c. use a flintlock muzzleloader? Yes No

38. To what degree would you favor or oppose the designation of CERTAIN AREAS for a PRIMITIVE MUZZLELOADER deer season (where only side locks and open sights are allowed)?

Strongly Oppose	Does Not Matter	Strongly Favor
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		

39. To what degree would you favor or oppose REPLACING 3 DAYS OF THE "EARLY" MUZZLELOADING SEASON (before the regular gun season) with a PRIMITIVE MUZZLELOADER deer season (where only side locks and open sights are allowed)?

Strongly Oppose	Does Not Matter	Strongly Favor
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		

40. West of the Blue Ridge, to what degree would you favor or oppose REPLACING 3 DAYS OF THE "LATE" MUZZLELOADING SEASON (after the regular gun season) with a PRIMITIVE MUZZLELOADER deer season (where only side locks and open sights are allowed)?

Strongly Oppose	Does Not Matter	Strongly Favor
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		

Next, we would like some idea of the number of animals you saw while ARCHERY DEER HUNTING in 1998. (If you did not hunt during ARCHERY DEER season, please skip to Question #42).

41. In the blank next to each species, place the number of animals you saw during the 1998 ARCHERY DEER SEASON. If you did not see a particular animal, place a zero (0) in the blank.

- | | | |
|-------------------|------------------|----------------------|
| _____ a. Bear | _____ e. Mink | _____ i. River Otter |
| _____ b. Bobcat | _____ f. Weasel | _____ j. Turkey |
| _____ c. Red Fox | _____ g. Raccoon | _____ k. Grouse |
| _____ d. Gray Fox | _____ h. Coyote | |

This next set of questions pertains to DEER hunting during regular firearms (GUN) season. (If you did not hunt during the 1998-99 DEER (Gun) season, please skip to Question #45).

42. Please indicate the county where you most often hunted DEER (Gun) during 1998-99.

County.

43. Overall, how do you rate the quality of your 1998-99 DEER (Gun) season?

Poor	Adequate	Excellent
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<input type="checkbox"/> 7		

44. In the area where you hunt during the DEER (Gun) season, would you increase, decrease, or keep the number of DOE DAYS as it is now? (Check only one).

- Increase the number of doe days
- Keep the number of doe days the same
- Decrease the number of doe days
- No opinion

The next series of questions pertains to TURKEY HUNTING (Fall and Spring). If you did not hunt turkeys during the Fall 1998 or Spring 1999 season, skip to question #52).

45. Did you hunt on OPENING DAY of the SPRING 1999 TURKEY season?
(If you did not hunt turkeys in the spring, skip to question #47).

Yes No

46. Overall, how do you rate the quality of your SPRING TURKEY hunting during 1999?

Poor	Adequate	Excellent
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<input type="checkbox"/> 7		

47. Please indicate the county where you most often hunted TURKEYS during Fall 1998 (If you did not hunt TURKEYS in the fall, skip to question #52)

County.

48. Overall, how do you rate the quality of your 1998 FALL TURKEY season?

Poor	Adequate	Excellent
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<input type="checkbox"/> 7		

49. Now we would like to know about the types of land on which you hunted FALL TURKEYS during the 1998-99 hunting season. Please indicate the number of days and average distance (1-way) you traveled to each of the following types of land:

No. Of Days	Average Miles Traveled (1-way)
_____	VDGIF Wildlife Management Areas
_____	National Forests (U.S. Forest Service)
_____	Private Land (excluding hunt club or leased land)
_____	Corporate Land (example: Westvaco) (excluding hunt club or leased land)
_____	Hunt Club(s) on Leased Private Land
_____	Hunt Club(s) on Leased Corporate Land
_____	Military Land
_____	Other (please specify)

In the next section, we would like to know to what degree you are satisfied with your FALL TURKEY hunting experiences in Virginia in 1998.

50. First we would like you to imagine an EXCELLENT FALL TURKEY SEASON. In the next few questions, please indicate how essential the following attributes are to an excellent turkey season. Please put a check in the box which best describes your feelings about each one.

You may feel some attributes are more essential than others. Check the first box if you feel an attribute is not at all essential to an excellent season. Check the last box if an attribute is absolutely essential. When you feel less certain about how essential the attribute is, check one of the boxes toward the middle.

	Not At All Essential For Excellence		Nice But Not Essential		Absolutely Essential For Excellence
a. Getting away from civilization	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Being close to nature	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Getting away from everyday problems (job, family, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Maintaining and/or using my calls and hunting equipment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Spending sufficient time scouting the areas I intend to hunt	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Being able to spend plenty of time patterning my shotgun	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Watching TV programs about turkey hunting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
					<input type="checkbox"/> 6
					<input type="checkbox"/> 7

	Not At All Essential For Excellence	Nice But Not Essential	Absolutely Essential For Excellence
h. Reading magazines about turkey hunting	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
i. Attending seminars to learn more about turkey hunting	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
j. Seeing turkeys while hunting	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
k. Hearing turkeys while hunting	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
l. Seeing and hearing other wildlife while hunting	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
m. Seeing very few other hunters while hunting	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
n. Feeling reasonably safe while in the woods	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
o. Being with my hunting companions	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
p. Teaching someone the skills of hunting turkeys	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
q. Calling turkeys successfully	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
r. Hunting turkeys with dogs	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
s. Combining turkey hunting with hunting other species	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
t. Getting a shot at a turkey	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
u. Bagging a turkey	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
v. Bagging a limit of turkeys	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
w. Being thought of as a skilled turkey hunter	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
x. Showing a turkey I bagged to family and friends	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
y. Bringing home a turkey to eat	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		
z. Displaying a trophy turkey, beard, etc.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		

Now, please tell the degree to which you agree or disagree with the following statements.

51. During the 1998 fall turkey hunting season, I:

	Strongly Disagree	Neither Agree Nor Disagree			Strongly Agree
a. Was able to get away from civilization	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7				
b. Felt close to nature	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7				
c. Was able to get away from everyday problems (job, family, etc.)	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7				

	Strongly Disagree	Neither Agree Nor Disagree			Strongly Agree		
d. Spent sufficient time maintaining and using my calls and hunting equipment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
e. Spent sufficient time scouting the areas I hunted	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
f. Spent plenty of time patterning my shotgun	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
g. Watched plenty of TV programs about turkey hunting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
h. Read plenty of magazines about turkey hunting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
i. Was able to attend a seminar(s) to learn more about turkey hunting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
j. Saw plenty of turkeys	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
k. Heard plenty of turkeys	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
l. Saw and heard plenty of other wildlife	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
m. Saw very few other hunters while hunting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
n. Felt reasonably safe while in the woods	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
o. Was able to spend plenty of time with my hunting companions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
p. Taught someone the skills of hunting turkeys	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
q. Felt I was able to call turkeys successfully	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
r. Had the opportunity to hunt turkeys with dogs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
s. Was able to combine my turkey hunting with hunting other species	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
t. Had the opportunity to shoot at a turkey	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

Finally, we would like to ask a few questions about you.

52. How old are you? _____ years.

53. Marital Status:

Never Married Married Divorced Separated Widowed

54. Gender: Male Female

55. How old were you when you first hunted? _____ years.

56. Who taught you to hunt? (✓ Check only one).

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Father | <input type="checkbox"/> Brother/Sister |
| <input type="checkbox"/> Spouse | <input type="checkbox"/> Grandparent |
| <input type="checkbox"/> Mother | <input type="checkbox"/> Friend |
| <input type="checkbox"/> Uncle/Aunt | <input type="checkbox"/> No one taught me, I learned on my own |

57. Which game species did you first hunt? (✓ Check only one.)

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> Deer | <input type="checkbox"/> Turkey |
| <input type="checkbox"/> Squirrel | <input type="checkbox"/> Ducks/Geese |
| <input type="checkbox"/> Quail | <input type="checkbox"/> Raccoon |
| <input type="checkbox"/> Rabbit | <input type="checkbox"/> Groundhog/Woodchuck |
| <input type="checkbox"/> Dove | <input type="checkbox"/> Other (please specify) _____ |

58. Within the last 5 years, have you introduced a young person (< 18 years old) to hunting?

- Yes No

If yes, what species did you hunt? (✓ Check only one).

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> Deer | <input type="checkbox"/> Turkey |
| <input type="checkbox"/> Squirrel | <input type="checkbox"/> Ducks/Geese |
| <input type="checkbox"/> Quail | <input type="checkbox"/> Raccoon |
| <input type="checkbox"/> Rabbit | <input type="checkbox"/> Groundhog/Woodchuck |
| <input type="checkbox"/> Dove | <input type="checkbox"/> Other (please specify) _____ |

59. Where did you reside as a child? (✓ Check only one.)

- Farm
 Rural, but not farm
 Town (less than 50,000 in population)
 Urban (city over 50,000 in population)
 Suburban (adjacent to city over 50,000 in population)

60. In what type of area do you currently reside? (✓ Check only one.)

- Farm
 Rural, but not farm
 Town (less than 50,000 in population)
 Urban (city over 50,000 in population)
 Suburban (adjacent to city over 50,000 in population)

61. Do you own land on which you hunt?

- Yes No

If yes, how many acres of land, suitable for hunting, do you own?

_____ Acres

Thank you for taking the time to complete this survey. Your answers are very important to the successful management of wildlife in Virginia. If you have questions regarding the study or this questionnaire, please contact the Center for Recreation Resources Policy at (703) 993-2064.

PLEASE FOLD THE QUESTIONNAIRE,
PLACE IT IN THE RETURN ENVELOPE, AND
RETURN IT TO US AS SOON AS POSSIBLE.
THANKS AGAIN!

Hunter Survey
Center for Recreation Resources Policy
George Mason University
Mail Stop 1F6
Fairfax, VA 22030-4444