

MISSISSIPPI MAIL SURVEY OF GAME

HARVEST AND HUNTER EFFORT FOR 1986-87

by

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TABLE OF CONTENTS

	Page
TABLE OF CONTENTS.....	2
LIST OF TABLES.....	3
LIST OF FIGURES.....	6
INTRODUCTION.....	7
METHODS.....	8
RESULTS.....	11
DISCUSSION.....	12
ACKNOWLEDGEMENTS.....	13
REFERENCES CITED.....	14
TABLES.....	15
FIGURES.....	39
APPENDIX.....	44

LIST OF TABLES

Table	Page
1. Expanded statewide summary of the 1986-87 Mississippi mail survey of game harvest based on 255,265 small game license holders and 229,138 big game license holders.....	15
2. Expanded statewide estimates of total harvest (and the variability of the estimates) for all game species in Mississippi during the 1986-87 hunting season.....	16
3. Expanded statewide and regional summaries of DOVE hunting in Mississippi during the 1986-87 hunting season.....	17
4. Expanded statewide and regional summaries of QUAIL hunting in Mississippi during the 1986-87 hunting season.....	18
5. Expanded statewide and regional summaries of WOODCOCK hunting in Mississippi during the 1986-87 hunting season.....	19
6. Expanded statewide and regional summaries of RABBIT hunting in Mississippi during the 1986-87 hunting season.....	20
7. Expanded statewide and regional summaries of SQUIRREL hunting in Mississippi during the 1986-87 hunting season.....	21
8. Expanded statewide and regional summaries of RACCOON hunting in Mississippi during the 1986-87 hunting season.....	22
9. Expanded statewide and regional summaries of ALL DUCK hunting in Mississippi during the 1986-87 hunting season.....	23
10. Expanded statewide and regional summaries of MALLARD, WOOD DUCK and OTHER DUCK hunting in Mississippi during the 1986-87 hunting season.....	24

Table	Page
11. Expanded statewide and regional summaries of GOOSE hunting in Mississippi during the 1986-87 hunting season.....	25
12. Expanded statewide and regional summaries of RED FOX hunting in Mississippi during the 1986-87 hunting season.....	26
13. Expanded statewide and regional summaries of GRAY FOX hunting in Mississippi during the 1986-87 hunting season.....	27
14. Expanded statewide and regional summaries of BOBCAT hunting in Mississippi during the 1986-87 hunting season.....	28
15. Expanded statewide and regional summaries of COYOTE hunting in Mississippi during the 1986-87 hunting season.....	29
16. Expanded statewide and regional summaries of ARCHERY DEER hunting in Mississippi during the 1986-87 hunting season.....	30
17. Expanded statewide and regional summaries of ARCHERY BUCK and DOE hunting in Mississippi during the 1986-87 hunting season.....	31
18. Expanded statewide and regional summaries of PRIMITIVE WEAPON DEER hunting in Mississippi during the 1986-87 hunting season.....	32
19. Expanded statewide and regional summaries of PRIMITIVE WEAPON BUCK and DOE hunting in Mississippi during the 1986-87 hunting season.....	33
20. Expanded statewide and regional summaries of REGULAR GUN DEER hunting in Mississippi during the 1986-87 hunting season.....	34

Table		Page
21.	Expanded statewide and regional summaries of REGULAR GUN BUCK and DOE hunting in Mississippi during the 1986-87 hunting season.....	35
22.	Expanded statewide and regional summaries of SPRING TURKEY hunting in Mississippi during the 1986 hunting season.....	36
23.	Expanded statewide and regional summaries of FALL TURKEY hunting in Mississippi during the 1986 hunting season.....	37
24.	Expanded statewide summaries of ALL DEER, BUCK and DOE hunting (combining all harvest method) during the 1986-87 hunting season and ALL TURKEY hunting (combining spring and fall data) during the 1986 calendar year.....	38

LIST OF FIGURES

Figure	Page
1. Questionnaire used for the 1986-87 mail survey of game harvest and hunter effort in Mississippi.....	39
2. Cover letter mailed with the initial mailing of the 1986-87 survey of game harvest and hunter effort in Mississippi.....	40
3. Post card used as the first reminder mailing to nonrespondents during the 1986-87 survey of game harvest and hunter effort in Mississippi.....	41
4. Cover letter mailed with the second (and final) reminder mailing to nonrespondents during the 1986-87 survey of game harvest and hunter effort in Mississippi.....	42
5. Regional partitions utilized for region hunted most.....	43

APPENDIX

I. Responses to the hunter attitude and opinion questions from the 1986-87 Mississippi hunter questionnaire.....	44
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INTRODUCTION

The importance of game harvest surveys is to provide indices which will monitor changes in kill and hunter effort among seasons to determine trends. Changes in harvest regulations, habitat conditions, game population numbers and the socio-economic environment may be reflected in and monitored by changes in hunting (kill and effort) indices.

Mail surveys to obtain game harvest data result in parameter estimates (e.g. total harvest, average daily kill, average seasonal harvest, total man-days hunting) which contain serious sampling, response and nonresponse biases. As a result, the accuracy of these estimates is unknown. Filion (1980) provided a good review of these biases and their effect on the estimates.

Although there are public relation benefits from obtaining accurate figures pertaining to hunter harvest and effort, management practices require only indices of kill and effort. Parameter estimates obtained from mail surveys may not be accurate, but assuming all biases remain constant the estimates will provide good indices for trend determination. Further, Wright (1978) noted that until the wildlife profession can develop more accurate methods of estimating population numbers, measures of absolute harvest are relatively meaningless and indices to harvest should be adequate. For consumer purposes, these data (however inaccurate) are often the best available.

Therefore the primary objective of the mail survey for the 1986-87 hunting season was to provide a reliable set of statewide hunting indices for each game species in Mississippi. No attempt was made to identify potential biases and correct for their effect. For dissemination to the

public these indices were to also serve as harvest and effort estimators. Secondary objectives were to obtain these indices on a regional basis and to evaluate hunter attitudes and responses on specific issues.

METHODS

An initial sample of 4,295 sportsmen to be mailed a survey questionnaire was selected from the 1986-87 file of licenses sold. The sampling frame was restricted to only resident holders of Sportsman's (Type 00), All Game Hunting and Fishing (Type 01), Small Game Hunting (Type 02) and Small Game Hunting and Fishing (Type 05) licenses who made their purchase during the 1986-87 fiscal year.

A 2.7 percent sample of hunting license buyers was selected from the 210,945 hunting license sales stubs (Types 01, 02, and 05) processed by the end of January, 1987. An approximate random sample was achieved by selecting stubs whose license numbers ended in predetermined but randomly selected sets of terminal digits between 000 and 919 (27 sets of digits were selected for each license type). An optical scanning device (S6000 Burroughs Document Processor) was used to mechanically make the stub selections. Discontinuing sampling at the end of January expedited the survey mailing as soon as possible after the close of the hunting season in February.

Since approximately 32 percent of the selected license stubs lacked complete names and addresses for mailing purposes, the 2.7 percent sample of stubs resulted in a 1.83 percent sample of usable licenses (3,859). Names and addresses were manually keypunched for each usable stub sampled.

Based on a 6 year average (80/81 - 85/86), the hunting license (Types 01, 02, 05) sales through the end of January accounted for about

90.9 percent of the year-end (June) sales of these license types. Therefore a 1.83 percent sample of license holders based on the January figure would be about a 1.67 percent ($0.909 \times 0.0183 \times 100$) sample of the expected June sales.

Because of the computerized and renewable aspects of Sportsman's licenses (Type 00), virtually all 86-87 Sportsman's license holders were accounted for by the end of January (26,030 Sportsman's license holders). To achieve a sample of Sportsman license holders comparable to the other types, a computer generated random sample of 436 (1.67%) hunters was selected. Both stub and Sportsman's license samples were combined into a single computer file for mailing purposes.

The initial mailing consisting of the questionnaire (Figure 1), a cover letter (Figure 2) and a No. 9 postage-paid business reply envelope was mailed in a No. 10 window envelope on March 25, 1987 to the sampled hunters. About three weeks after the initial mailing (April 15, 1987), reminder post cards (Figure 3) were mailed to 2,828 sampled hunters who had not returned their questionnaires by April 14, 1987. The final mailing composed of an identical questionnaire, cover letter (Figure 4) and business reply envelope was mailed about three weeks after the reminder post card mailing (May 5, 1987) to the 2,449 nonrespondents as of May 3, 1987. First mailing questionnaires were given identification numbers from 100,001 to 104,295 while the final mailing was given a 200,000 numbering sequence to differentiate responses between mailings. Questionnaires returned four weeks after the final mailing (after June 3, 1987) were not considered in the analyses.

Questionnaire design and mailing procedures were outlined by Steffen

(1981). Procedures for editing and data entry of returned questionnaires were also identical to Steffen (1981).

Estimates (and their standard errors) for each species were calculated for the following indices; total kill, average seasonal kill per hunter, proportion of licensed hunters, total licensed hunters, proportion of hunters who were successful, total man-days spent hunting, average days afield per hunter and the average daily kill. These indices were calculated both on a statewide and regional (Figure 5) basis.

The 1986-87 survey, like the previous surveys, obtained information about two different hunting seasons or license years (i.e., spring 1986 turkey hunters hunted during the 1985-86 license year while hunters of the other surveyed species hunted during the 1986-87 fiscal year). Because of prior irregularities in the license sales structure, only surveys beginning with the 1982-83 season had well defined sampling frames with a known number of license buyers (Steffen 1981, 1983a, b). Therefore spring 1986 turkey hunting indices were calculated based on the total number of resident big game hunters during 1985-86 and on the respondents who also purchased a big game license during the previous July 1, 1985 - June 30, 1986 fiscal year (Questionnaire Part B, question #1).

Estimates and standard errors of total turkey harvest and man-days of effort were calculated as a linear combination of the spring 1986 estimates plus the fall 1986 estimates. The computer programs were altered to reflect these changes. All other calculations follow Steffen (1981).

RESULTS

Based on all three mailings, 624 (14.5%) of the 4,295 questionnaires were returned as non-deliverable by the post office. Therefore 3,671 individuals were assumed to have been contacted to participate in the survey. Of these, 1,999 (54.5%) returned their questionnaires for possible analysis and 1,672 (45.6%) were nonresponses. Based on those questionnaires returned, 1,953 were answered and usable to some extent, 37 were returned after the acceptance deadline (4 weeks after the final mailing) and only 9 were considered completely useless.

Statewide expansions were calculated based on the 255,265 total hunting licenses sold and accounted for by the end of June 1987. The total sales for each resident hunting license type were as follows: Type 00 = 26,100, Type 01 = 203,038, Type 02 = 13,879 and Type 05 = 12,248. Therefore there existed 255,265 individuals licensed to hunt small game and 229,138 (Types 00 + 01) of these license holders also were eligible to pursue big game (deer and turkey) during the 1986-87 hunting seasons. The spring, 1986 turkey hunting estimates were based on the 233,018 big game license holders accounted for in the 1985-86 license sales totals.

Based on the 1,953 usable responses, 95.3 ± 0.5 (SE) percent of all resident license holders actually participated in a hunting activity during the 1986-87 hunting season. Therefore an estimated $243,268 \pm 1,223$ (SE) licensees actually utilized their license for hunting purposes.

The expanded statewide summaries of total harvest, average daily kill, average seasonal kill, the percent of hunters successful, total man-days, average seasonal days hunting, total hunters and the percent of total licensees that hunted are provided in Table 1 for all game species

included in the survey. Table 2 provides the expanded statewide estimates of total harvest and the variability of these estimates (standard errors and 95 percent confidence limits) for all game species surveyed. Tables 3 - 8 summarize small game hunting on a statewide and regional basis. Waterfowl hunting is summarized in Tables 9 - 11. Tables 12 - 15 summarize fox (red and gray), bobcat and coyote hunting. Statewide and regional summaries of deer (buck and doe data from the archery, primitive weapon and gun seasons) and turkey hunting are provided in Tables 16 - 24. Statewide totals will not necessarily equal the sum of the regional totals. All figures were calculated independently and were the best statistical estimates available.

The responses to the hunter attitude and opinion questions (Part B of the questionnaire, Figure 1) are summarized in Appendix I. Responses were often analyzed on a hunting region basis (Figure 5). Although in some cases references to statistical tests of significance have been made, details of these analyses are not included. Since the original survey data were permanently stored on a computer type, these data remain available for more specific and detailed analyses.

DISCUSSION AND RECOMMENDATIONS

For management purposes, it should be reemphasized that the hunting data provided are only indices to harvest and effort, for use in conjunction with past (and future) mail surveys to determine trends. The current survey was conducted similarly to all past surveys and is therefore useful for comparison purposes.

Response and nonresponse biases continue to exist with the survey as previously noted by Steffen (1981). Therefore discretion must be used

when considering these data as absolute estimates. Assuming the biases remain consistent over time, the best uses of these data are as indices for trend determinations.

As previously recommended by Steffen (1981), the annual survey should be continued with a sample of 3,000 - 4,000 sportsmen. Periodically (e.g., every 5 years) a survey of 11,000 - 12,000 hunters should be conducted to provide more precise estimates on a regional basis. The next large sample survey should be conducted after the 1990-91 hunting seasons. To avoid changes in biases, attention to the consistency of survey methodology should be continued in future surveys.

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TABLE 1. EXPANDED STATEWIDE SUMMARY OF THE 1986-87 MISSISSIPPI MAIL SURVEY OF GAME HARVEST BASED ON 255,265 SMALL GAME LICENSE HOLDERS AND 229,138 BIG GAME LICENSE HOLDERS.

SPECIES	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENSEES(A)
DOVE	2,975,298	6.49	25.76	94.8	456,901	3.97	115,804	45.4
QUAIL	617,893	2.73	15.49	84.9	228,568	5.91	39,995	15.7
WOODCOCK	30,323	1.09	3.87	90.0	27,083	3.57	7,842	3.1
RABBIT	1,144,043	1.70	12.01	90.9	666,260	7.17	95,153	37.3
SQUIRREL	2,370,018	2.41	15.48	93.2	974,055	6.44	153,185	60.0
RACCOON	222,458	0.80	8.73	90.8	261,462	11.14	25,487	10.0
ALL DUCKS	378,709	1.53	10.60	91.2	234,507	6.71	36,074	14.1
MALLARD	164,155	0.67	4.59	60.6				
WOOD DUCK	122,396	0.48	3.42	66.8				
OTHER DUCKS	92,110	0.37	2.57	34.3				
GEESE	3,790	0.26	2.64	72.7	9,682	8.22	1,438	0.6
RED FOX	4,052	0.03	0.69	48.9	116,914	26.94	5,882	2.3
GRAY FOX	6,539	0.05	1.39	56.8	110,899	29.14	4,836	1.9
BOBCAT	9,411	0.12	1.18	78.7	54,191	9.34	7,973	3.1
COYOTE	41,847	0.10	1.63	82.7	282,461	14.99	25,749	10.1
TOTAL DEER	254,904	0.075	1.29	53.8	3,317,039	16.96	197,365	86.1
BUCK	196,243	0.058	0.99	48.9				
DOE	58,564	0.017	0.30	21.1				
ARCHERY DEER	19,209	0.047	0.42	28.3	382,233	8.73	45,977	20.1
BUCK	10,852	0.026	0.24	18.2				
DOE	8,353	0.021	0.18	16.6				
PRIMITIVE DEER	30,701	0.120	0.59	42.0	237,854	4.79	52,082	22.7
BUCK	13,479	0.052	0.26	22.5				
DOE	17,204	0.068	0.33	25.9				
GUN DEER	206,374	0.076	1.07	51.9	2,681,190	14.01	193,253	84.3
BUCK	171,854	0.063	0.89	47.9				
DOE	32,966	0.012	0.17	14.5				
TOTAL TURKEY	49,355	0.122	0.88	48.5	381,077	6.96	58,882	21.9
SPRING 1986	45,609	0.118	0.85	47.8	360,474	6.91	53,763	23.1
FALL 1986	3,746	0.182	0.73	43.9	20,604	4.02	5,120	2.2

(A) DEER AND TURKEY PERCENTAGES BASED ON BIG GAME LICENSE HOLDERS; ALL OTHERS BASED ON SMALL GAME LICENSE HOLDERS.

TABLE 2. EXPANDED STATEWIDE ESTIMATES OF TOTAL HARVEST (AND THE VARIABILITY OF THE ESTIMATES) FOR ALL GAME SPECIES IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

SPECIES	TOTAL HARVEST	STANDARD ERROR		95% CONFIDENCE INTERVAL	
		SE	AS % OF TOTAL(A)	LOWER LIMIT	UPPER LIMIT
DOVE	2,975,298	134,656	4.5	2,705,986	3,244,610
QUAIL	617,893	70,282	11.4	477,329	758,457
WOODCOCK	30,323	6,879	22.7	16,565	44,081
RABBIT	1,144,043	83,511	7.3	977,021	1,311,065
SQUIRREL	2,370,018	98,523	4.2	2,172,972	2,567,064
RACCOON	222,458	28,130	12.6	166,198	278,718
ALL DUCKS	378,709	37,089	9.8	304,531	452,887
MALLARD	164,155	20,447	12.5	123,261	205,049
WOOD DUCK	122,396	13,271	10.8	95,954	148,938
OTHER DUCKS	92,110	14,251	15.5	63,608	120,612
GEESE	3,790	1,677	44.2	436	7,144
RED FOX	4,052	1,017	25.1	2,018	6,086
GRAY FOX	6,539	2,268	34.7	2,003	11,075
BOBCAT	9,411	1,837	19.5	5,737	13,085
COYOTE	41,847	4,144	9.9	33,559	50,135
TOTAL DEER	254,904	9,021	3.5	236,962	272,946
BUCK	196,243	7,134	3.6	181,975	210,511
DOE	58,564	3,575	6.1	51,414	65,714
ARCHERY DEER	19,209	2,094	10.8	15,041	23,377
BUCK	10,852	1,460	13.5	7,932	13,772
DOE	8,353	1,091	13.1	6,171	10,535
PRIMITIVE DEER	30,701	2,543	8.3	25,615	35,787
BUCK	13,479	1,465	10.9	10,549	16,409
DOE	17,204	1,797	10.4	13,610	20,798
GUN DEER	206,374	7,484	3.6	191,406	221,342
BUCK	171,854	6,287	3.7	159,280	184,428
DOE	32,966	2,350	7.1	28,266	37,666
TOTAL TURKEY	49,355	3,728	7.6	41,899	56,311
SPRING 1986	45,609	3,593	7.9	38,423	52,795
FALL 1986	3,746	995	26.6	1,756	5,736

(A) X=100(SE/TOTAL HARVEST)

TABLE 3. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF DOVE HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	734,317 (80,233) 1,930	7.17 (0.37) 191	29.07 (2.48) 191	93.8 (1.8) 192	102,583 (9,539) 1,926	4.05 (0.25) 191	25,342 (1,736) 867	22.1 (1.4) 867
2	ESTIMATE (SE) N	1,391,657 (95,909) 1,930	6.58 (0.30) 391	26.57 (1.39) 396	96.0 (1.0) 396	208,612 (13,977) 1,926	4.02 (0.20) 392	52,399 (2,345) 867	45.8 (1.7) 867
3	ESTIMATE (SE) N	130,939 (28,095) 1,930	5.82 (0.92) 51	19.04 (3.18) 52	88.5 (4.5) 52	22,796 (5,018) 1,926	3.31 (0.58) 52	6,995 (948) 867	6.1 (0.8) 867
4	ESTIMATE (SE) N	565,154 (62,668) 1,930	6.44 (0.40) 176	24.14 (2.05) 177	97.7 (1.1) 177	88,137 (8,599) 1,926	3.76 (0.25) 177	23,494 (1,678) 867	20.5 (1.4) 867
5	ESTIMATE (SE) N	142,181 (33,437) 1,930	4.52 (0.57) 47	22.87 (4.30) 47	93.6 (3.6) 47	31,544 (7,662) 1,926	5.06 (1.00) 47	6,203 (894) 867	5.4 (0.8) 867
STATEWIDE	ESTIMATE (SE) N	2,975,298 (134,656) 1,949	6.49 (0.19) 872	25.76 (0.97) 882	94.8 (0.7) 883	456,901 (19,127) 1,942	3.97 (0.13) 875	115,804 (2,876) 1,953	45.4 (1.1) 1,953
									PERCENT OF TOTAL LICENSEES

TABLE 4. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF QUAIL HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE	93,255	3.29	13.36	84.9	28,289	4.20	6,977	18.2
	(SE)	(21,261)	(0.35)	(2.47)	(5.0)	(5,976)	(0.68)	(945)	(2.3)
	N	1,938	51	53	53	1,931	51	292	292
2	ESTIMATE	325,338	2.46	16.58	87.2	135,366	7.06	19,747	51.4
	(SE)	(48,098)	(0.23)	(2.08)	(2.7)	(17,282)	(0.71)	(1,549)	(2.9)
	N	1,938	144	149	149	1,931	145	292	292
3	ESTIMATE	49,657	5.89	41.89	77.8	8,460	7.11	1,185	3.1
	(SE)	(39,768)	(2.29)	(32.36)	(14.7)	(4,472)	(3.10)	(394)	(1.0)
	N	1,938	9	9	9	1,931	9	292	292
4	ESTIMATE	111,168	2.50	15.35	87.3	43,492	6.09	7,241	18.8
	(SE)	(25,443)	(0.32)	(2.88)	(4.5)	(9,386)	(1.04)	(963)	(2.3)
	N	1,938	54	55	55	1,931	54	292	292
5	ESTIMATE	28,846	2.67	8.76	76.0	10,840	3.28	3,291	8.6
	(SE)	(9,852)	(0.68)	(2.48)	(8.7)	(2,999)	(0.64)	(654)	(1.6)
	N	1,938	25	25	25	1,931	25	292	292
<hr/>									
STATEWIDE	ESTIMATE	617,893	2.73	15.49	84.9	226,568	5.91	39,995	15.7
	(SE)	(70,282)	(0.21)	(1.56)	(2.1)	(20,788)	(0.43)	(2,100)	(0.8)
	N	1,952	293	305	305	1,941	294	1,953	1,953
<hr/>									
<p style="text-align: right;">PERCENT OF TOTAL LICENSEES</p>									

TABLE 5. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF WOODCOCK HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	4,451 (1,821) 1,950	0.49 (0.36) 12	2.83 (0.86) 12	83.3 (11.2) 12	9,042 (6,620) 1,948	5.75 (4.04) 12	1,571 (452) 57	21.1 (5.4) 57
2	ESTIMATE (SE) N	8,640 (3,014) 1,950	1.12 (0.36) 14	4.40 (1.07) 15	93.3 (6.7) 15	7,469 (2,778) 1,948	4.07 (1.10) 14	1,964 (505) 57	26.3 (5.9) 57
3	ESTIMATE (SE) N	3,665 (1,654) 1,950	1.56 (0.71) 6	4.67 (0.99) 6	100.0 (0.0) 6	2,359 (1,156) 1,948	3.00 (0.89) 6	785 (320) 57	10.5 (4.1) 57
4	ESTIMATE (SE) N	2,880 (1,012) 1,950	0.81 (0.15) 12	1.69 (0.38) 13	84.6 (10.4) 13	2,752 (970) 1,948	1.75 (0.37) 12	1,702 (471) 57	22.8 (5.6) 57
5	ESTIMATE (SE) N	10,211 (5,612) 1,950	2.36 (0.73) 11	7.09 (3.42) 11	100.0 (0.0) 11	4,324 (1,964) 1,948	3.00 (1.07) 11	1,440 (433) 57	19.3 (5.3) 57

STATEWIDE	ESTIMATE (SE) N	30,323 (6,879) 1,953	1.09 (0.31) 58	3.87 (0.73) 60	90.0 (3.9) 60	27,093 (7,596) 1,951	3.57 (0.90) 58	7,842 (997) 1,953	3.1 (0.4) 1,953

								PERCENT OF TOTAL LICENSEES	

TABLE 6. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BABBII HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	334,559 (57,106) 1,909	2.44 (0.24) 140	17.50 (2.64) 143	93.7 (2.0) 143	134,237 (23,956) 1,894	7.11 (1.13) 140	19,081 (1,535) 688	20.8 (1.5) 688
2	ESTIMATE (SE) N	297,787 (36,013) 1,909	1.67 (0.13) 213	10.08 (1.04) 221	86.5 (2.3) 222	179,656 (20,801) 1,894	6.23 (0.60) 214	29,623 (1,870) 688	32.3 (1.8) 688
3	ESTIMATE (SE) N	108,712 (21,102) 1,909	1.14 (0.25) 65	11.78 (1.83) 69	94.2 (2.8) 69	95,825 (24,663) 1,894	10.77 (2.47) 66	9,341 (1,096) 688	10.2 (1.2) 688
4	ESTIMATE (SE) N	225,847 (45,563) 1,909	1.70 (0.23) 164	9.93 (1.91) 166	92.8 (2.0) 166	133,967 (16,653) 1,894	5.99 (0.60) 166	22,417 (1,652) 688	24.4 (1.6) 688
5	ESTIMATE (SE) N	122,752 (19,845) 1,909	1.36 (0.15) 83	10.80 (1.33) 85	91.8 (3.0) 85	90,030 (13,756) 1,894	8.05 (0.88) 83	11,342 (1,203) 688	12.4 (1.3) 688

STATEWIDE	ESTIMATE (SE) N	1,144,043 (83,511) 1,949	1.70 (0.09) 697	12.01 (0.81) 724	90.9 (1.1) 725	666,260 (44,314) 1,926	7.17 (0.43) 701	95,153 (2,794) 1,953	37.3 (1.1) 1,953

								PERCENT OF TOTAL LICENSEES	

TABLE 7. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF SQUIBBEL HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	500,422 (49,027) 1,894	2.77 (0.22) 209	17.51 (1.29) 212	95.3 (1.5) 213	181,419 (18,797) 1,877	6.35 (0.51) 210	28,617 (1,843) 1,119	19.0 (1.2) 1,119
2	ESTIMATE (SE) N	726,980 (61,827) 1,894	2.32 (0.14) 387	13.62 (0.99) 396	92.0 (1.4) 398	312,383 (24,595) 1,877	5.90 (0.38) 389	53,606 (2,386) 1,119	35.7 (1.4) 1,119
3	ESTIMATE (SE) N	327,235 (47,789) 1,894	2.64 (0.31) 138	16.98 (2.08) 143	88.8 (2.6) 143	120,629 (15,992) 1,877	6.38 (0.67) 139	19,346 (1,550) 1,119	12.9 (1.0) 1,119
4	ESTIMATE (SE) N	514,304 (50,587) 1,894	2.37 (0.17) 246	15.10 (1.20) 251	94.0 (1.5) 251	213,378 (19,313) 1,877	6.35 (0.44) 247	33,856 (1,987) 1,119	22.5 (1.2) 1,119
5	ESTIMATE (SE) N	249,470 (32,698) 1,894	2.17 (0.28) 111	16.68 (1.56) 111	96.4 (1.8) 111	116,141 (18,265) 1,877	7.69 (0.93) 111	14,913 (1,374) 1,119	9.9 (0.9) 1,119
STATEWIDE	ESTIMATE (SE) N	2,370,018 (98,523) 1,947	2.41 (0.09) 1,131	15.48 (0.58) 1,166	93.2 (0.7) 1,169	974,055 (40,237) 1,917	6.44 (0.24) 1,136	153,185 (2,830) 1,953	60.0 (1.1) 1,953
								PERCENT OF TOTAL LICENSEES	

TABLE 8. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BALLOON HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE	64,541	0.95	10.21	89.6	68,353	11.22	6,322	26.7
	(SE) N	(15,772) 1,938	(0.15) 46	(2.05) 48	(4.5) 48	(17,212) 1,927	(2.33) 46	(901) 180	(3.5) 180
2	ESTIMATE	55,057	0.62	7.08	89.8	74,579	10.43	7,771	32.8
	(SE) N	(12,017) 1,938	(0.08) 54	(1.26) 59	(4.0) 59	(15,547) 1,927	(1.68) 54	(996) 180	(3.5) 180
3	ESTIMATE	26,343	0.95	12.50	87.5	27,818	14.00	2,107	8.9
	(SE) N	(11,276) 1,938	(0.24) 15	(4.49) 16	(8.5) 16	(10,787) 1,927	(4.20) 15	(525) 180	(2.1) 180
4	ESTIMATE	47,286	0.75	8.16	88.6	62,127	11.44	5,795	24.4
	(SE) N	(11,760) 1,938	(0.13) 41	(1.65) 44	(4.8) 44	(18,188) 1,927	(2.86) 41	(864) 180	(3.2) 180
5	ESTIMATE	19,757	1.32	11.54	100.0	15,101	8.77	1,712	7.2
	(SE) N	(12,198) 1,938	(0.18) 13	(6.63) 13	(0.0) 13	(8,639) 1,927	(4.57) 13	(473) 180	(1.9) 180

STATEWIDE	ESTIMATE	222,458	0.80	8.73	90.8	261,462	11.14	25,487	10.0
	(SE) N	(28,130) 1,953	(0.07) 178	(3.93) 195	(2.1) 195	(33,724) 1,936	(1.20) 178	(1,732) 1,953	(0.7) 1,953

								PERCENT OF TOTAL LICENSEES	

TABLE 9. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ALL-DUCK HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	193,431 (29,992) 1,932	1.83 (0.14) 92	15.57 (1.85) 94	92.6 (2.7) 95	98,138 (13,049) 1,930	7.98 (0.69) 93	12,532 (1,254) 258	36.8 (3.0) 258
2	ESTIMATE (SE) N	84,428 (15,254) 1,932	1.18 (0.12) 82	7.61 (1.12) 84	88.1 (3.6) 84	70,892 (11,074) 1,930	6.54 (0.74) 82	11,081 (1,183) 258	32.6 (2.9) 258
3	ESTIMATE (SE) N	23,254 (8,354) 1,932	1.57 (0.21) 19	9.26 (2.64) 19	84.2 (8.6) 19	16,136 (4,785) 1,930	5.81 (1.20) 21	2,770 (601) 258	8.1 (1.7) 258
4	ESTIMATE (SE) N	21,933 (4,570) 1,932	1.09 (0.22) 39	4.26 (0.58) 39	97.4 (2.6) 39	20,104 (5,107) 1,930	3.90 (0.78) 39	5,145 (816) 258	15.1 (2.2) 258
5	ESTIMATE (SE) N	38,845 (13,675) 1,932	1.84 (0.24) 18	15.47 (4.26) 19	94.7 (5.3) 19	20,633 (6,358) 1,930	8.67 (1.78) 18	2,506 (572) 258	7.4 (1.6) 258
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STATEWIDE	ESTIMATE (SE) N	378,709 (37,089) 1,950	1.53 (0.08) 263	10.60 (0.85) 273	91.2 (1.7) 274	234,507 (19,219) 1,943	6.71 (0.40) 266	36,074 (2,013) 1,953	14.1 (0.8) 1,953
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								PERCENT OF TOTAL LICENSEES	

TABLE 10. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF HALLBIRD, WOOD DUCK, AND OTHER DUCK HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION(1)	STATISTIC	HALLBIRDS					WOOD DUCKS					OTHER DUCKS					
		TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE (SE) N	109,399 (18,453) 1,932	1.05 (0.11) 92	8.81 (1.20) 94	81.1 (4.0) 95	30,653 (5,240) 1,932	0.28 (0.04) 92	2.47 (0.34) 94	58.9 (5.1) 95	53,351 (10,863) 1,933	0.50 (0.07) 93	4.25 (0.76) 95	51.6 (5.2) 95				
2	ESTIMATE (SE) N	29,992 (6,938) 1,932	0.42 (0.08) 82	2.70 (0.56) 84	58.3 (5.4) 84	41,223 (9,089) 1,932	0.57 (0.09) 82	3.71 (0.72) 84	66.7 (5.2) 84	13,206 (4,013) 1,933	0.19 (0.05) 82	1.19 (0.34) 84	27.4 (4.9) 84				
3	ESTIMATE (SE) N	7,135 (2,774) 1,932	0.48 (0.12) 19	2.84 (0.92) 19	57.9 (11.6) 19	13,345 (3,166) 1,932	0.90 (0.14) 19	5.32 (1.71) 19	78.9 (9.6) 19	2,773 (1,633) 1,933	0.19 (0.10) 19	1.11 (0.62) 19	21.1 (9.6) 19				
4	ESTIMATE (SE) N	1,850 (746) 1,932	0.09 (0.04) 39	0.36 (0.13) 39	20.5 (6.6) 39	19,290 (4,317) 1,932	0.96 (0.21) 39	3.74 (0.60) 39	87.2 (5.4) 39	792 (494) 1,933	0.04 (0.02) 39	0.15 (0.09) 39	7.7 (4.3) 39				
5	ESTIMATE (SE) N	10,438 (3,443) 1,932	0.50 (0.17) 18	4.16 (2.00) 19	57.9 (11.6) 19	11,495 (4,276) 1,932	0.56 (0.17) 18	4.58 (1.38) 19	63.2 (11.4) 19	16,903 (7,856) 1,933	0.78 (0.27) 18	6.74 (2.80) 19	42.1 (11.6) 19				
STATEWIDE	ESTIMATE (SE) N	164,155 (20,447) 1,950	0.67 (0.06) 263	4.59 (0.51) 273	60.6 (3.0) 274	122,396 (13,271) 1,950	0.48 (0.04) 263	3.42 (0.32) 273	66.8 (2.9) 274	92,110 (14,251) 1,951	0.37 (0.05) 264	2.57 (0.37) 274	34.3 (2.9) 274				

TABLE 11. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GOOSE HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	1,309 (1,185) 1,950	0.08 (0.14) 2	3.33 (2.85) 3	66.7 (33.3) 3	1,572 (1,336) 1,949	6.00 (4.00) 2	393 (227) 8	37.5 (18.3) 8
2	ESTIMATE (SE) N	916 (796) 1,950	0.13 (0.12) 4	1.75 (1.44) 4	50.0 (28.9) 4	6,942 (4,457) 1,949	13.25 (6.17) 4	524 (262) 8	50.0 (18.9) 8
3	ESTIMATE (SE) N	0 (0) 1,950	(.) (.) .	(.) (.) .	(.) (.) .	0 (0) 1,949	(.) (.) .	0 (0) 8	0.0 (0.0) 8
4	ESTIMATE (SE) N	0 (0) 1,950	(.) (.) .	(.) (.) .	(.) (.) .	0 (0) 1,949	(.) (.) .	0 (0) 8	0.0 (0.0) 8
5	ESTIMATE (SE) N	262 (262) 1,950	1.00 (.) 1	2.00 (.) 1	100.0 (.) 1	262 (262) 1,949	2.00 (.) 1	131 (131) 8	12.5 (12.5) 8
STATEWIDE	ESTIMATE (SE) N	3,790 (1,677) 1,953	0.26 (0.15) 9	2.64 (0.90) 11	72.7 (14.1) 11	9,682 (4,721) 1,951	8.22 (3.11) 9	1,438 (432) 1,953	0.6 (0.2) 1,953
									PERCENT OF TOTAL LICENSEES

TABLE 12. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BELEGG HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE)	393 (227)	0.02 (0.04)	0.75 (0.25)	75.0 (25.0)	10,795 (10,533)	27.33 (26.33)	524 (262)	10.0 (4.8)
	N	1,948	3	4	4	1,939	3	40	40
2	ESTIMATE (SE)	1,048 (453)	0.08 (0.08)	0.62 (0.21)	46.2 (14.4)	8,162 (6,373)	8.66 (6.54)	1,704 (471)	32.5 (7.5)
	N	1,948	7	13	13	1,939	7	40	40
3	ESTIMATE (SE)	1,048 (586)	0.02 (0.02)	1.00 (0.46)	62.5 (18.3)	48,710 (27,379)	46.25 (21.63)	1,048 (370)	20.0 (6.4)
	N	1,948	8	8	8	1,939	8	40	40
4	ESTIMATE (SE)	786 (370)	0.01 (0.01)	0.46 (0.18)	38.5 (14.0)	45,287 (19,156)	31.27 (9.75)	1,704 (471)	32.5 (7.5)
	N	1,948	11	13	13	1,939	11	40	40
5	ESTIMATE (SE)	0 (0)	0.00 (0.00)	0.00 (0.00)	0.0 (0.0)	1,053 (767)	4.00 (1.00)	262 (185)	5.0 (3.5)
	N	1,948	2	2	2	1,939	2	40	40

STATEWIDE	ESTIMATE (SE)	4,052 (1,017)	0.03 (0.01)	0.69 (0.14)	48.9 (7.5)	116,914 (35,636)	26.94 (6.87)	5,882 (867)	2.3 (0.3)
	N	1,953	33	45	45	1,941	33	1,953	1,953

PERCENT OF TOTAL LICENSEES									

TABLE 13. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GRAY_EQX HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	262 (262) 1,947	0.02 (0.05) 2	1.00 (1.00) 2	50.0 (50.0) 2	10,667 (10,516) 1,942	40.50 (39.50) 2	262 (185) 32	6.3 (4.3) 32
2	ESTIMATE (SE) N	2,884 (1,471) 1,947	0.22 (0.19) 9	1.57 (0.71) 14	57.1 (13.7) 14	10,778 (6,923) 1,942	9.11 (5.31) 9	1,835 (489) 32	63.8 (8.9) 32
3	ESTIMATE (SE) N	1,835 (1,584) 1,947	0.04 (0.04) 5	2.80 (2.31) 5	66.7 (21.1) 6	51,658 (27,568) 1,942	65.50 (24.70) 6	786 (321) 32	18.8 (7.0) 32
4	ESTIMATE (SE) N	524 (524) 1,947	0.02 (0.02) 6	0.67 (0.67) 6	16.7 (16.7) 6	34,833 (16,625) 1,942	44.17 (12.00) 6	786 (321) 32	18.8 (7.0) 32
5	ESTIMATE (SE) N	656 (347) 1,947	1.00 (0.00) 3	1.25 (0.25) 4	100.0 (0.0) 4	394 (228) 1,942	1.00 (0.00) 3	524 (262) 32	12.5 (5.9) 32
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STATEWIDE	ESTIMATE (SE) N	6,539 (2,268) 1,952	0.05 (0.02) 28	1.39 (0.43) 36	56.8 (8.3) 37	110,899 (34,536) 1,945	29.14 (7.44) 29	4,836 (788) 1,953	1.9 (0.3) 1,953
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								PERCENT OF TOTAL LICENSEES	

TABLE 14. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BOBQUIT HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	1,310 (555) 1,949	0.06 (0.05) 7	1.25 (0.51) 8	87.5 (12.5) 8	17,404 (11,196) 1,936	18.86 (10.61) 7	1,048 (370) 57	14.0 (4.6) 57
2	ESTIMATE (SE) N	2,358 (640) 1,949	0.32 (0.12) 15	0.90 (0.14) 20	75.0 (9.9) 20	5,406 (1,903) 1,936	2.73 (0.63) 15	2,619 (583) 57	35.1 (6.4) 57
3	ESTIMATE (SE) N	2,488 (1,416) 1,949	0.08 (0.06) 6	2.11 (1.03) 9	77.8 (14.7) 9	20,437 (14,262) 1,936	25.83 (16.02) 6	1,179 (392) 57	15.8 (4.9) 57
4	ESTIMATE (SE) N	1,834 (613) 1,949	0.21 (0.15) 11	1.08 (0.21) 13	84.6 (10.4) 13	6,329 (4,075) 1,936	4.36 (2.61) 11	1,703 (471) 57	22.8 (5.6) 57
5	ESTIMATE (SE) N	917 (392) 1,949	0.11 (0.05) 5	1.00 (0.22) 7	85.7 (14.3) 7	4,615 (2,860) 1,936	7.00 (3.36) 5	917 (346) 57	12.3 (4.4) 57
STATEWIDE	ESTIMATE (SE) N	9,411 (1,837) 1,953	0.12 (0.04) 44	1.18 (0.18) 61	78.7 (5.3) 61	54,191 (18,870) 1,936	9.34 (2.97) 44	7,973 (1,003) 1,953	3.1 (0.4) 1,953

PERCENT OF TOTAL LICENSEES

TABLE 16. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ARCHERY-DEER HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	4,910 (1,070) 1,820	0.053 (0.009) 75	0.51 (0.10) 77	32.5 (5.4) 77	94,015 (13,069) 1,806	9.88 (0.80) 75	9,684 (1,080) 352	21.9 (2.2) 352
2	ESTIMATE (SE) N	4,407 (978) 1,820	0.035 (0.008) 117	0.28 (0.06) 123	19.5 (3.6) 123	112,412 (14,185) 1,806	7.57 (0.68) 117	15,469 (1,347) 352	34.9 (2.5) 352
3	ESTIMATE (SE) N	3,273 (1,005) 1,820	0.051 (0.013) 51	0.49 (0.14) 53	30.2 (6.4) 53	66,991 (11,023) 1,806	10.15 (0.94) 52	6,791 (911) 352	15.3 (1.9) 352
4	ESTIMATE (SE) N	4,281 (1,002) 1,820	0.052 (0.011) 67	0.47 (0.10) 72	32.9 (5.5) 73	77,521 (12,625) 1,806	8.99 (1.01) 68	9,181 (1,053) 352	20.7 (2.2) 352
5	ESTIMATE (SE) N	881 (417) 1,820	0.038 (0.017) 24	0.28 (0.12) 25	20.0 (8.2) 25	23,091 (6,033) 1,806	7.58 (1.28) 24	3,144 (625) 352	7.1 (1.4) 352
STATEWIDE		19,209 (2,084) 1,837	0.047 (0.005) 345	0.42 (0.04) 367	28.3 (2.4) 368	382,233 (25,156) 1,817	8.73 (0.39) 347	45,977 (2,140) 1,839	20.1 (0.9) 1,839
								PERCENT OF TOTAL LICENSEES (A)	

(A) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.

TABLE 17. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ARCHERY-BUCK AND DOG HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	BUCKS					DOGS				
		TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS		
1	ESTIMATE	2,518	0.027	0.26	19.5	2,391	0.026	0.25	20.8		
	(SE) N	(687) 1,820	(0.007) 75	(0.07) 77	(4.5) 77	(627) 1,821	(0.006) 75	(0.06) 77	(4.7) 77		
2	ESTIMATE	2,770	0.021	0.18	12.2	1,636	0.014	0.11	10.6		
	(SE) N	(774) 1,820	(0.006) 117	(0.05) 123	(3.0) 123	(452) 1,821	(0.004) 117	(0.03) 123	(2.3) 123		
3	ESTIMATE	1,763	0.027	0.26	18.9	1,510	0.023	0.23	18.9		
	(SE) N	(641) 1,820	(0.009) 51	(0.09) 53	(5.4) 53	(502) 1,821	(0.007) 51	(0.07) 53	(5.4) 53		
4	ESTIMATE	2,518	0.031	0.28	23.3	1,762	0.020	0.19	17.8		
	(SE) N	(732) 1,820	(0.009) 67	(0.07) 72	(5.0) 73	(502) 1,821	(0.006) 68	(0.05) 73	(4.5) 73		
5	ESTIMATE	378	0.016	0.12	12.0	503	0.022	0.16	15.0		
	(SE) N	(218) 1,820	(0.009) 24	(0.07) 25	(6.6) 25	(251) 1,821	(0.010) 24	(0.07) 25	(7.5) 25		
STATEWIDE	ESTIMATE	10,852	0.026	0.24	18.2	8,353	0.021	0.16	16.6		
	(SE) N	(1,460) 1,837	(0.003) 345	(0.03) 367	(2.0) 368	(1,091) 1,838	(0.003) 346	(0.02) 368	(1.9) 368		

TABLE 18. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF PRIMITIVE-WEAPON-DEER HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	6,057 (1,076) 1,816	0.127 (0.017) 84	0.55 (0.08) 87	42.5 (5.3) 87	46,973 (5,966) 1,800	4.39 (0.31) 84	10,959 (1,147) 398	21.9 (2.1) 398
2	ESTIMATE (SE) N	6,687 (1,125) 1,816	0.077 (0.011) 123	0.40 (0.06) 132	31.8 (4.1) 132	74,852 (7,891) 1,800	4.78 (0.29) 123	16,628 (1,394) 398	33.2 (2.4) 398
3	ESTIMATE (SE) N	6,814 (1,302) 1,816	0.138 (0.022) 63	0.79 (0.12) 68	50.0 (6.1) 68	45,955 (6,746) 1,800	5.64 (0.46) 64	8,692 (1,027) 398	17.3 (1.9) 398
4	ESTIMATE (SE) N	7,444 (1,294) 1,816	0.148 (0.019) 87	0.67 (0.09) 88	47.2 (5.3) 89	52,065 (6,470) 1,800	4.65 (0.32) 88	11,211 (1,159) 398	22.4 (2.1) 398
5	ESTIMATE (SE) N	2,019 (734) 1,816	0.125 (0.035) 19	0.80 (0.24) 20	52.4 (11.2) 21	14,130 (3,954) 1,800	5.55 (0.97) 20	2,645 (574) 398	5.3 (1.1) 398

STATEWIDE	ESTIMATE (SE) N	30,701 (2,543) 1,836	0.120 (0.009) 390	0.59 (0.04) 415	42.0 (2.4) 417	237,854 (13,315) 1,814	4.79 (0.16) 393	52,082 (2,240) 1,839	22.7 (1.0) 1,839

								PERCENT OF TOTAL LICENSEES (A)	

(A) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.

TABLE 19. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF PRIMITIVE-WEAPON-BUCK-AND-DOE HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	BUCKS				DOES			
		TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE (SE) N	2,397	0.051	0.22	20.7	3,655	0.076	0.33	25.3
		(576) 1,816	(0.011) 84	(0.05) 87	(4.4) 87	(860) 1,818	(0.016) 84	(0.07) 87	(4.7) 87
2	ESTIMATE (SE) N	2,397	0.031	0.14	13.6	4,285	0.046	0.26	21.2
		(576) 1,816	(0.007) 123	(0.03) 132	(3.0) 132	(868) 1,818	(0.009) 123	(0.05) 132	(3.6) 132
3	ESTIMATE (SE) N	3,281	0.062	0.38	30.9	3,529	0.076	0.41	29.4
		(753) 1,816	(0.013) 63	(0.08) 68	(5.6) 68	(851) 1,818	(0.017) 63	(0.09) 68	(5.6) 68
4	ESTIMATE (SE) N	3,533	0.070	0.32	27.0	3,907	0.076	0.35	30.3
		(794) 1,816	(0.013) 87	(0.06) 88	(4.7) 89	(782) 1,818	(0.013) 88	(0.06) 89	(4.9) 89
5	ESTIMATE (SE) N	883	0.042	0.35	28.6	1,134	0.072	0.43	38.1
		(455) 1,816	(0.018) 19	(0.17) 20	(10.1) 21	(417) 1,818	(0.027) 20	(0.13) 21	(10.9) 21
STATEWIDE	ESTIMATE (SE) N	13,479	0.052	0.26	22.5	17,204	0.068	0.33	25.9
		(1,465) 1,836	(0.005) 390	(0.03) 415	(2.0) 417	(1,797) 1,838	(0.007) 392	(0.03) 417	(2.1) 417

TABLE 20. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF REGULAR GUN-DEER HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	39,188 (3,962) 1,760	0.089 (0.007) 231	1.25 (0.10) 240	55.6 (3.2) 241	442,506 (34,105) 1,700	14.15 (0.67) 232	31,252 (1,871) 1,479	16.3 (1.0) 1,479
2	ESTIMATE (SE) N	68,221 (4,749) 1,760	0.068 (0.004) 537	0.94 (0.06) 560	46.3 (2.1) 560	989,472 (46,751) 1,700	13.67 (0.42) 537	72,619 (2,537) 1,479	37.9 (1.3) 1,479
3	ESTIMATE (SE) N	34,501 (3,536) 1,760	0.091 (0.007) 198	1.29 (0.10) 206	59.9 (3.4) 207	379,965 (31,310) 1,700	14.17 (0.69) 199	26,973 (1,757) 1,479	14.1 (0.9) 1,479
4	ESTIMATE (SE) N	52,988 (4,783) 1,760	0.079 (0.006) 333	1.16 (0.09) 351	55.1 (2.7) 352	652,369 (40,625) 1,700	14.40 (0.56) 336	45,905 (2,182) 1,479	23.9 (1.1) 1,479
5	ESTIMATE (SE) N	11,197 (1,877) 1,760	0.051 (0.007) 107	0.75 (0.11) 115	46.6 (4.7) 116	211,346 (24,033) 1,700	14.52 (0.95) 108	15,042 (1,350) 1,479	7.8 (0.7) 1,479
STATEWIDE									PERCENT OF TOTAL LICENSEES (A)
	ESTIMATE (SE) N	206,374 (7,484) 1,832	0.076 (0.003) 1,453	1.07 (0.04) 1,544	51.9 (1.3) 1,548	2,681,190 (57,297) 1,747	14.01 (0.26) 1,459	193,253 (1,942) 1,839	84.3 (0.8) 1,839

(A) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.

TABLE 21. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF REGULAR GUN-BUCK-AND-DOE HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON.

REGION	STATISTIC	BUCKS										DOES	
		TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE	30,986	0.070	0.99	50.6	8,188	0.018	0.26	19.5				
	(SE) N	(3,184) 1,760	(0.006) 231	(0.08) 240	(3.2) 241	(1,475) 1,763	(0.003) 232	(0.04) 241	(2.6) 241				
2	ESTIMATE	57,024	0.056	0.78	43.0	11,177	0.011	0.15	13.4				
	(SE) N	(4,066) 1,760	(0.003) 537	(0.05) 560	(2.1) 560	(1,362) 1,763	(0.001) 537	(0.02) 560	(1.4) 560				
3	ESTIMATE	29,554	0.077	1.10	55.6	4,939	0.014	0.18	17.4				
	(SE) N	(3,173) 1,760	(0.006) 198	(0.09) 206	(3.5) 207	(854) 1,763	(0.002) 198	(0.03) 206	(2.6) 207				
4	ESTIMATE	44,526	0.066	0.97	50.9	6,388	0.010	0.15	12.8				
	(SE) N	(3,849) 1,760	(0.005) 333	(0.07) 351	(2.7) 352	(1,099) 1,763	(0.002) 334	(0.02) 352	(1.8) 352				
5	ESTIMATE	9,504	0.044	0.63	42.2	1,690	0.008	0.11	9.5				
	(SE) N	(1,595) 1,760	(0.006) 107	(0.09) 115	(4.6) 116	(535) 1,763	(0.002) 108	(0.03) 116	(2.7) 116				
STATEWIDE	ESTIMATE	171,854	0.063	0.89	47.9	32,966	0.012	0.17	14.5				
	(SE) N	(6,287) 1,832	(0.002) 1,455	(0.03) 1,544	(1.3) 1,548	(2,350) 1,835	(0.001) 1,456	(0.01) 1,547	(0.9) 1,548				

TABLE 22. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF SPRING-TUBKEY HUNTING IN MISSISSIPPI DURING THE 1986 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	4,042 (1,048) 1,672	0.099 (0.018) 51	0.57 (0.13) 51	59.2 (6.9) 51	41,294 (5,139) 1,659	5.76 (0.82) 51	7,108 (980) 375	13.6 (1.8) 375
2	ESTIMATE (SE) N	11,010 (1,856) 1,672	0.110 (0.015) 87	0.85 (0.12) 93	45.2 (5.2) 93	84,134 (13,358) 1,659	6.89 (0.83) 87	12,961 (1,306) 375	24.8 (2.2) 375
3	ESTIMATE (SE) N	10,174 (1,740) 1,672	0.116 (0.015) 36	0.82 (0.11) 89	40.1 (5.3) 89	81,325 (12,219) 1,659	6.73 (0.73) 86	12,403 (1,280) 375	23.7 (2.2) 375
4	ESTIMATE (SE) N	17,699 (2,355) 1,672	0.143 (0.013) 116	1.07 (0.11) 119	58.8 (4.5) 119	122,057 (15,017) 1,659	7.49 (0.63) 116	16,584 (1,466) 375	31.7 (2.4) 375
5	ESTIMATE (SE) N	1,951 (797) 1,672	0.082 (0.018) 22	0.61 (0.22) 23	30.4 (9.8) 23	24,018 (7,589) 1,659	7.77 (1.86) 22	3,205 (664) 375	6.1 (1.2) 375
STATEWIDE	ESTIMATE (SE) N	45,609 (3,593) 1,686	0.113 (0.007) 374	0.65 (0.06) 389	47.8 (2.5) 389	360,474 (25,019) 1,671	6.91 (0.36) 374	53,763 (2,392) 1,686	23.1 (1.0) 1,686

PERCENT OF TOTAL LICENSEES(A)

(A) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.

TABLE 23. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF FALL TURKEY HUNTING IN MISSISSIPPI DURING THE 1986 HUNTING SEASON.

REGION(A)	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER REGION
1	ESTIMATE (SE) N	1,748 (683) 1,835	0.212 (0.050) 20	0.70 (0.23) 20	40.0 (11.2) 20	8,241 (2,478) 1,835	3.30 (0.68) 20	2,497 (556) 41	48.8 (7.9) 41
3	ESTIMATE (SE) N	1,998 (727) 1,835	0.162 (0.057) 21	0.76 (0.23) 21	47.6 (11.2) 21	12,362 (3,602) 1,835	4.71 (0.94) 21	2,622 (569) 41	51.2 (7.9) 41
STATEWIDE	ESTIMATE (SE) N	3,746 (995) 1,835	0.182 (0.041) 41	0.73 (0.16) 41	43.9 (7.8) 41	20,604 (4,352) 1,835	4.02 (0.59) 41	5,120 (791) 1,835	2.2 (0.3) 1,835

(A) FALL TURKEY HUNTING WAS LEGAL ONLY IN REGIONS 1 AND 3.
 (B) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.

TABLE 24 . EXPANDED STATEWIDE SUMMARIES OF ALL-DEER, BUCKS, AND DOE HUNTING IN MISSISSIPPI DURING THE 1986-87 HUNTING SEASON AND ALL TURKEY HUNTING (COMBINING SPRING AND FALL DATA) DURING THE 1986 CALENDAR YEAR IN MISSISSIPPI.

SPECIES	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENSEES(A)
DEER	ESTIMATE	254,904	0.075	1.29	53.8	3,317,039	16.96	197,365	86.1
	(SE) N	(9,021) 1,832	(0.002) 1,480	(0.04) 1,577	(1.3) 1,581	(76,059) 1,741	(0.35) 1,486	(1,847) 1,839	(0.8) 1,839
BUCK	ESTIMATE	196,243	0.059	0.99	48.9				
	(SE) N	(7,134) 1,832	(0.002) 1,480	(0.03) 1,577	(1.3) 1,581				
DOE	ESTIMATE	58,564	0.017	0.30	21.1				
	(SE) N	(3,575) 1,835	(0.001) 1,483	(0.02) 1,580	(1.0) 1,581				
TURKEY	ESTIMATE	49,355	0.122	0.88	48.5	381,077	6.96	58,882	21.9
	(SE) N	(3,728) -	(0.007) 397	(0.06) 412	(2.5) 412	(25,396) .	(0.35) 397	(2,519) 1,884	(1.0) 1,884

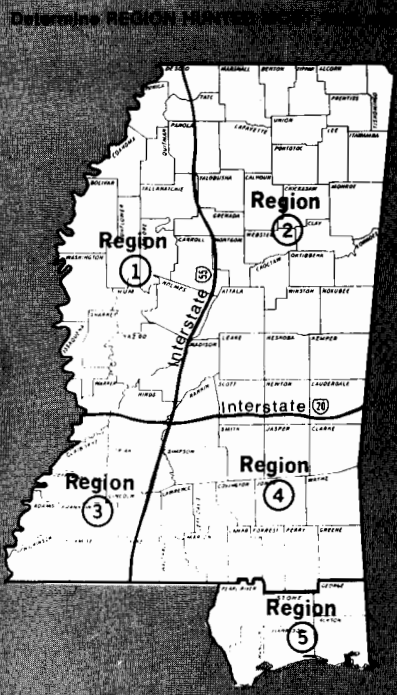
(A) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.



1986-87 MISSISSIPPI HUNTER QUESTIONNAIRE

A. Please fill in the blocks below for each game species you hunted during the 1986-87 hunting season (successful or unsuccessful). If you hunted more than one kind of game on a particular day, count it as a separate day. Report only game taken by you. Your answers will be kept confidential.

SPECIES	TOTAL KILL	TOTAL DAYS HUNTED	REGION HUNTED MOST
1. Dove			
2. Quail			
3. Woodcock			
4. Rabbit			
5. Squirrel			
6. Possum			
7. Deer (rifle)			
8. Deer (shotgun)			
9. Deer (spear)			
10. Turkey (Spring '86)			
11. Turkey (Fall '86)			
12. Ducks			
13. Geese			
14. Red Fox			
15. Gray Fox			
16. Bobcat			
17. Coyote			



B. Please answer the following questions.

- The 1986-87 fall and winter hunting seasons have just been completed. Did you purchase a license to hunt deer and turkey during the previous 1985-86 hunting seasons (not the one just completed)?
 - 1 Yes
 - 2 No
- If you deer hunt, which hunting situation would you prefer?
 - 1 Many deer, low buck quality
 - 2 Fewer deer, high buck quality
- If you turkey hunt, what is your preferred weapon?
 - 1 Rifle
 - 2 Shotgun
 - 3 Other _____
- If you turkey hunt, do you ever use a rifle?
 - 1 Yes
 - 2 No
- If you killed a bobcat during the 1986-87 hunting seasons, how many did you kill while:
 - deer hunting during regular gun season? _____ bobcat(s)
 - hunting for other game? _____ bobcat(s)
 - hunting specifically for bobcat? _____ bobcat(s)
- How do you hunt deer during the firearms seasons? (you may check more than one box).
 - 1 Dogs
 - 2 Still hunt or stalking
 - 3 Mandrive
 - 4 Tree stand
 - 5 Horseback

- Rank the following methods of hunting deer according to which you enjoy the most. Place a one (1) in the box by the method which you enjoy doing the most; place a two (2) beside the next most enjoyable, and a three (3) beside the least enjoyable method for you. Do not give two boxes the same number and be sure to use all boxes.
 - Hunting with dogs
 - Still hunting, stalking, hunting from a tree stand
 - Hunting with organized mandrives
- Indicate the number of days you spent deer hunting during the regular gun season in each of the following:
 - _____ days Department of Wildlife Conservation Management Area
 - _____ days Other public owned land (National Forest, National Wildlife Refuge, etc.)
 - _____ days Private lands (excluding clubs or leased lands)
 - _____ days Private hunting clubs or leases
 - _____ days Other (please specify) _____
- Do you consider hunting from a public road to be a serious problem?
 - 1 Yes
 - 2 No
 - 3 Not sure
- How knowledgeable are you about game laws?
 - 1 I am very informed about the law
 - 2 I usually know the law, but sometimes unsure
 - 3 I am often unsure about the law
- Your age: _____ yrs.

Fig. 1 Questionnaire used for the 1986-87 mail survey of game harvest and hunter effort in Mississippi.



MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION

P. O. Box 451 • Phone (601) 961-5300 • Jackson, MS 39205

Dear Sportsman:

We need your help! The Department of Wildlife Conservation is surveying Mississippi hunters to obtain information concerning the 1986-87 hunting season and last spring's (1986) turkey season. You have been selected as a representative hunter to participate in the survey.

The purpose of this survey is to obtain reasonable estimates of game harvest, hunter effort and hunter opinions for the season just completed. Information supplied by you and other selected hunters will assist us in managing our game resources for the greatest public benefit.

For meaningful results, information is needed from everyone receiving a questionnaire since only a limited number of sportsmen can be contacted. Please fill in the enclosed questionnaire as accurately as possible (even if you did not hunt) and return it in the self-addressed, postage-paid envelope.

Our records are often difficult to read and we apologize if your name or address has been misspelled. A prompt reply will be sincerely appreciated.

Yours for better conservation,

Joe Stone
Executive Director

JS/cap

enclosure

Fig. 2 Cover letter mailed with the initial mailing of the 1986-87 survey of game harvest and hunter effort in Mississippi.

Survey Section
DEPARTMENT OF WILDLIFE CONSERVATION
P. O. Box 451
JACKSON, MISSISSIPPI 39205



PRESORTED
FIRST CLASS MAIL
U.S. POSTAGE PAID
PERMIT NO. 141

Dear Sportsman:

Recently we mailed you a questionnaire on your hunting experiences. If you have not yet answered the questionnaire, will you please do so today? If you have already returned the questionnaire, disregard this notice and we thank you very much for your cooperation.

Your response is important. It is the only way we have of estimating the harvest, effort and opinions of hunters in Mississippi for management purposes.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Stone", written over a horizontal line.

Joe Stone
Executive Director

Fig. 3 Post card used as the first reminder mailing to nonrespondents during the 1986-87 survey of game harvest and hunter effort in Mississippi.



MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION

P. O. Box 451 • Phone (601) 961-5300 • Jackson, MS 39205

Dear Sportsman:

The Department of Wildlife Conservation is striving to provide quality hunting for Mississippi sportsmen. We are depending on you to help us evaluate hunting activity and success for the 1986-87 hunting season and last spring's (1986) turkey season.

Another copy of the questionnaire is enclosed which we hope you will complete and return as soon as possible in the enclosed self-addressed, postage-paid envelope. If you have already returned the questionnaire please disregard this notice.

Remember, you can be of assistance even if you did not hunt or were not successful in your efforts. Your cooperation is needed and will be sincerely appreciated.

Sincerely for better conservation,

Joe Stone
Executive Director

JS/cap

enclosure

Fig. 4 Cover letter mailed with the second (and final) reminder mailing to nonrespondents during the 1986-87 survey of game harvest and hunter effort in Mississippi.

REGION HUNTED MOST

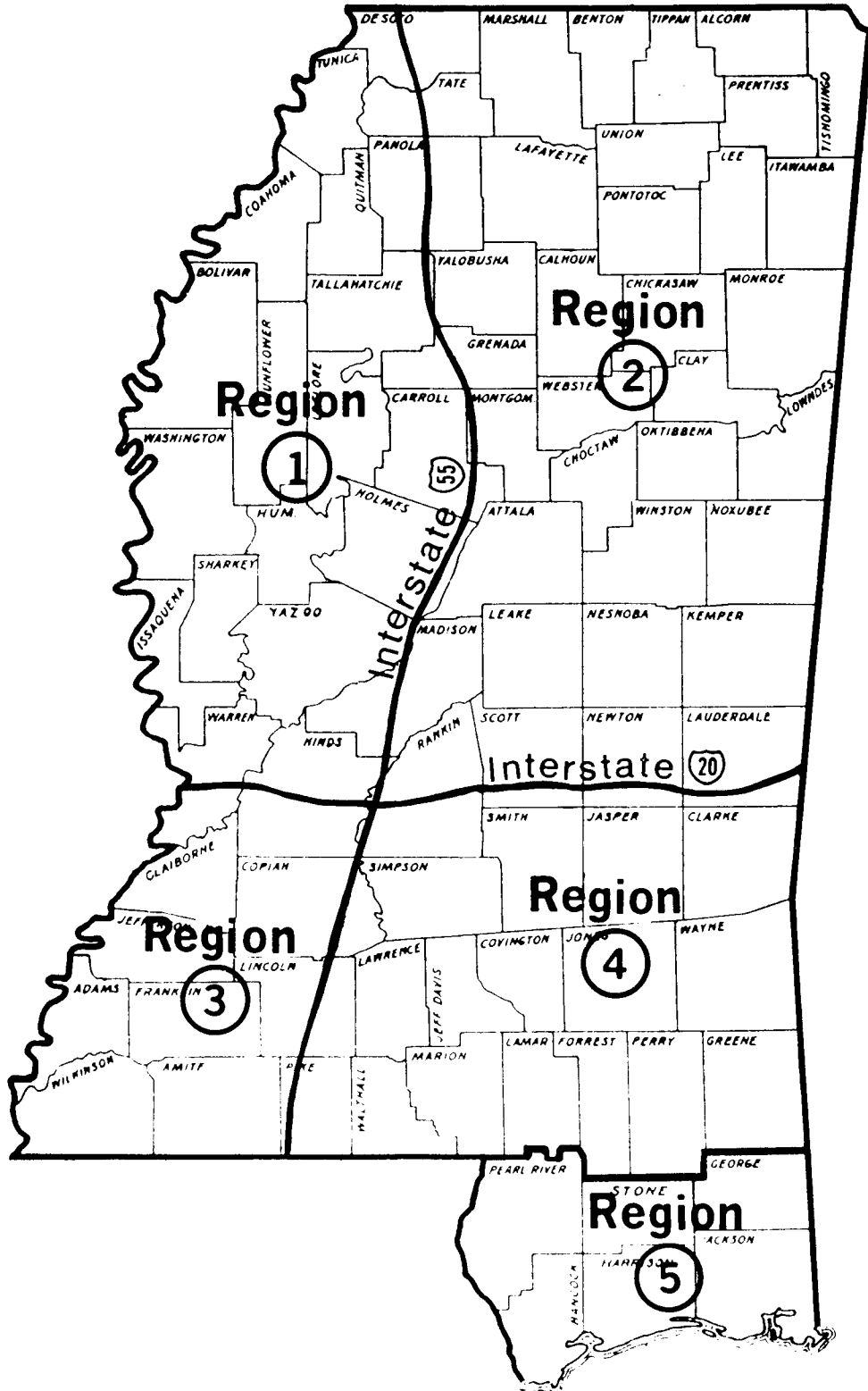


Fig. 5 Regional partitions utilized for region hunted most.

Appendix I. Responses to the hunter attitude and opinion questions from the 1986-87 Mississippi hunter questionnaire.

1. DID YOU PURCHASE A LICENSE TO HUNT DEER AND TURKEY DURING THE PREVIOUS 1985-86 HUNTING SEASON (NOT THE ONE JUST COMPLETED)?

Current License Held	N	% Yes
00	300	97.3
01	1517	88.9
02	61	42.6
05	47	40.4

This identical question has been asked during three previous seasons and summarized by Steffen (1987:23).

2. IF YOU DEER HUNT, WHICH HUNTING SITUATION WOULD YOU PREFER?

Gun Hunting Region	N	% Preferring	
		Many Deer Low Buck Quality	Fewer Deer High Buck Quality
1	237	24.5	75.5
2	565	33.3	66.7
3	211	20.8	79.2
4	338	24.8	75.2
5	115	31.3	68.7
All Gun Hunters	1535	28.2	71.8
All Deer Hunters	1568	28.4	71.6

Although hunters in all regions preferred quality of deer over quantity of deer, statistically significant differences in preferences were found among regions.

Deer hunter preferences were also compared among hunters grouped according to the amount of hunting effort on public lands (e.g. WMAs, Forest Service).

% of Effort in Public Areas	N	% Preferring	
		Many Deer Low Buck Quality	Fewer Deer High Buck Quality
<20%	798	26.2	73.8
21%-79%	127	26.0	74.0
≥ 80%	148	29.0	71.0

No significant differences in preferences were found among user groups. Therefore it appeared that regardless of where deer hunters hunted (private or public areas), the majority of hunters would prefer fewer deer and high buck quality rather than many deer with relatively low buck quality.

3. IF YOU TURKEY HUNT, WHAT IS YOUR PREFERRED WEAPON?

Hunter Group	N	Weapon		
		Rifle	Shotgun	Other
Fall Hunters	41	17.1	78.0	4.9
Spring Hunters	395	7.8	91.1	1.0
All Hunters	415	8.0	90.6	1.4

Since preference for use of a rifle appeared to be related to turkey hunting during the fall season, regional comparisons were based on hunters who only hunted during the spring seasons.

Hunting Region	N	% Preferring Rifle
1	37	10.8
2	84	10.7
3	81	3.7
4	125	7.2
5	24	0.0
All Spring Only Hunters	371	7.1

4. IF YOU TURKEY HUNT, DO YOU EVER USE A RIFLE?

Hunter Group	N	% Yes
Fall Hunters	42	57.1
Spring Hunters	404	24.5
All Hunters	424	25.2

Since the use of a rifle was related to hunters who turkey hunted during the fall season, regional comparisons were based on hunters who only hunted during the spring seasons.

Hunting Region	N	% Using Rifle
1	39	25.6
2	91	19.8
3	83	19.3
4	126	26.2
5	24	4.2
All Spring Only Hunters	379	21.9

5. IF YOU KILLED A BOBCAT, HOW MANY DID YOU KILL WHILE:

Hunting Method	% of Total Bobcat Harvest
Deer hunting during regular gun season?	59.4
Hunting for other game?	11.6
Hunting specifically for bobcat?	29.0

N=69 Bobcats

This identical question has been asked during four previous seasons and was summarized by Steffen (1987:16).

6. HOW DO YOU HUNT DEER DURING THE FIREARMS SEASON?

Hunting Region	N	Method (% who hunted)				
		Dogs	Still Hunt	Mandrive	Tree Stand	Horseback
1	243	58.9	85.6	23.4	77.4	6.2
2	577	56.9	84.6	22.4	69.7	3.1
3	214	65.0	89.3	27.6	74.8	6.5
4	360	61.1	79.2	28.1	73.3	2.5
5	119	63.0	73.1	32.8	66.4	3.4
Statewide (86-87)						
	1586	59.8	83.0	25.1	71.9	4.0
Statewide (76-77)*						
	4130	70.7	65.0	21.4	38.9	5.3

*An identical question was asked during 1976-77 by Lowe (1978).

7. RANK THE FOLLOWING METHODS OF HUNTING DEER ACCORDING TO WHICH YOU ENJOY THE MOST. PLACE A ONE (1) IN THE BOX BY THE METHOD WHICH YOU ENJOY DOING THE MOST; PLACE A TWO (2) BESIDE THE NEXT MOST ENJOYABLE, AND A THREE (3) BESIDE THE LEAST ENJOYABLE METHOD FOR YOU. DO NOT GIVE TWO BOXES THE SAME NUMBER AND BE SURE TO USE ALL BOXES.

Enjoyment Rank	% Response by Hunting Method		
	Dogs	Still	Mandrives
1	41.7	56.4	1.8
2	34.5	33.8	31.7
3	23.8	9.8	66.4

(N=1460)

Hunting Region	N	% Preferring	
		Dog Hunting	Still Hunting
1	222	39.6	60.4
2	536	40.3	59.7
3	204	46.1	53.9
4	333	42.0	58.0
5	109	51.4	48.6
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Statewide (86-87)	1460	42.6	57.4
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Statewide (82-83)*	1459	50.4	49.6

*An identical question was asked during 1982-83 and summarized by Steffen (1987:5).

8. INDICATE THE NUMBER OF DAYS YOU SPENT DEER HUNTING DURING THE REGULAR GUN SEASON IN EACH OF THE FOLLOWING:

Hunting Region	N	% of Effort by Area			
		WMA	Other Public	Private Lands	Clubs
1	171	7.2	9.0	39.4	44.4
2	426	6.3	10.0	45.5	38.2
3	148	6.6	7.0	40.0	46.4
4	254	6.8	9.2	51.1	32.8
5	82	29.3	15.5	29.1	26.0
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Statewide (86-87)	1109	8.6	9.9	44.1	37.4
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Statewide (82-83)*	1056	10.3	13.4	46.4	29.4

*An identical question was asked during 1982-83 and summarized by Steffen (1987:8).

9. DO YOU CONSIDER HUNTING FROM A PUBLIC ROAD TO BE A SERIOUS PROBLEM?

Hunting Region	N	% Response		
		Yes	No	Not Sure
1	242	70.3	18.6	11.2
2	575	66.1	25.7	8.2
3	213	63.9	17.4	18.8
4	359	63.2	27.6	9.2
5	119	48.7	36.1	15.1
Deer Hunters	1581	64.6	24.5	10.8
All Hunters	1914	65.6	23.3	11.1

Although the majority of hunters considered road hunting to be a serious problem, significant regional differences were evident.

Deer hunter attitudes toward the road hunting problem were significantly different between hunters who preferred still hunting and those who preferred dog hunting.

Hunter Group	N	Road Hunting Problem? (% Response)		
		Yes	No	Not Sure
Dog Hunting Preference	619	54.4	33.9	11.6
Still Hunting Preference	833	71.1	18.4	10.6

10. HOW KNOWLEDGEABLE ARE YOU ABOUT GAME LAWS?

<u>44.3%</u>	Very informed	
<u>50.4%</u>	Usually know, sometimes unsure	(N=1917)
<u>5.3%</u>	Often unsure	

No significant regional differences were found.

11. AGE OF THE RESPONDANTS: 36.9 years (N=1922)