

MISSISSIPPI MAIL SURVEY OF GAME
HARVEST AND HUNTER EFFORT FOR 1984-85

by

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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 1984-85

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 4,496 sportsmen to be mailed a survey questionnaire was selected from the 1984-85 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 1984-85 fiscal year.

A 3 percent sample of hunting license buyers was selected from the 211,601 hunting license sales stubs (Types 01, 02, and 05) processed by the end of January, 1985. An approximate random sample was achieved by selecting stubs whose license numbers ended in predetermined but randomly selected sets of terminal digits between 00 and 99 (3 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 35 percent of the selected license stubs lacked complete names and addresses for mailing purposes, the 3 percent sample of stubs resulted in a 1.936 percent sample of usable licenses (4,096). Names and addresses were manually keypunched for each usable stub sampled.

Based on a 4 year average (80/81 - 83/84), the hunting license (Types 01, 02, 05) sales through the end of January accounted for about 91.2 percent of the year-end (June) sales of these license types. Therefore a 1.936 percent sample of license holders based on the January figure would be about a 1.765 percent ($0.912 \times 0.01936 \times 100$) sample of the expected June sales.

Because of the computerized and renewable aspects of Sportsman's licenses (Type 00), virtually all 84-85 Sportsman's license holders were accounted for by the end of January (22,607 Sportsman's license holders). To achieve a sample of Sportsman license holders comparable to the other types, a computer generated random sample of 400 (1.765%) 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 21, 1985 to the sampled hunters. About three weeks after the initial mailing (April 12, 1985), reminder post cards (Figure 3) were mailed to 3,071 sampled hunters who had not returned their questionnaires by April 12, 1985. 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 2, 1985) to the 2,618 nonrespondents as of April 30, 1985. First mailing questionnaires were given identification numbers from 100,001 to 104,496 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, 1985) 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 (as shown by the questionnaire, Figure 1) basis.

The 1984-85 survey, like the previous surveys, obtained information about two different hunting seasons or license years (i.e. spring 1984 turkey hunters hunted during the 1983-84 license year while hunters of the other surveyed species hunted during the 1984-85 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 1984 turkey hunting indices were calculated based on the total number of resident big game hunters during 1983-84 and on the respondents who also

purchased a big game license during the previous July 1, 1983 - June 30, 1984 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 1984 estimates plus the fall 1984 estimates. The computer programs were altered to reflect these changes. All other calculations follow Steffen (1981).

RESULTS

Based on all three mailings, 361 (8.0%) of the 4,496 questionnaires were returned as non-deliverable by the post office. Therefore 4,135 individuals were assumed to have been contacted to participate in the survey. Of these, 2,316 (56.0%) returned their questionnaires for possible analysis and 1,819 (44.0%) were nonresponses. Based on those questionnaires returned 2,259 were answered and usable to some extent, 41 were returned after the acceptance deadline (4 weeks after the final mailing) and only 16 were considered completely useless.

Statewide expansions were calculated based on the 256,532 total hunting licenses sold and accounted for by the end of June 1985. The total sales for each resident hunting license type were as follows: Type 00 = 22,617, Type 01 = 203,151, Type 02 = 16,421 and Type 05 = 14,343. Therefore there existed 256,532 individuals licensed to hunt small game and 225,768 (Types 00 + 01) of these license holders also were eligible to pursue big game (deer and turkey) during the 1984-85 hunting seasons. The spring, 1984 turkey hunting estimates were based on the 229,749 big game license holders accounted for in the 1983-84 license sales totals.

Based on the 2,259 usable responses, 94.6 ± 0.5 (SE) percent of all resident license holders actually participated in a hunting activity during the 1984-85 hunting season. Therefore an estimated $242,679 \pm 1,283$ (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 - 23. 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 analysis of the hunter attitude and opinion questions (Part B of the questionnaire) has been completed. Results will be released as separate reports or will be available upon request from the Mississippi Department of Wildlife Conservation.

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.

Harvest and effort estimates for the major game species continued to result in adequate precision with the reduced sample sizes used in the 1984-85 survey. As expected, the estimates for the species of lesser hunting importance were quite poor (particularly the regional estimates).

Delays associated with the delivery of the new optical scanning device prevented the 1984-85 survey from being expanded to a sample size of 11,000 - 12,000 hunters as recommended by Steffen (1984). This expanded sample size should be implemented during the next survey period (1985-86 hunting season). 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 1984-85 MISSISSIPPI MAIL SURVEY OF GAME HARVEST BASED ON 256,532 SMALL GAME LICENSE HOLDERS AND 225,768 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	2,621,340	6.03	23.69	93.5	435,182	3.93	111,062	43.3
QUAIL	854,804	2.87	18.76	89.5	298,529	6.61	45,651	17.8
WOODCOCK	35,317	1.01	5.48	87.5	34,015	5.75	6,359	2.5
RABBIT	1,252,815	1.72	11.77	88.6	680,191	6.53	106,860	41.7
SQUIRREL	2,609,101	2.56	16.53	92.6	988,042	6.32	158,189	61.7
RACCOON	241,990	0.84	9.34	90.4	264,774	10.96	26,005	10.1
ALL DUCKS	565,598	1.80	14.94	85.9	302,904	8.21	38,156	14.9
MALLARD	279,832	0.87	7.37	63.5				
WOOD DUCK	180,607	0.57	4.76	67.7				
OTHER DUCKS	109,504	0.35	2.89	36.8				
GEESE	3,407	0.15	1.50	60.0	14,896	7.71	2,271	0.9
RED FOX	2,725	0.03	0.67	47.2	76,106	20.91	4,088	1.6
GRAY FOX	2,612	0.03	0.79	48.3	73,798	24.96	3,293	1.3
BOBCAT	8,063	0.37	1.48	89.6	12,907	3.23	5,451	2.1
COYOTE	28,062	0.16	1.77	80.6	104,740	9.15	15,785	6.2
TOTAL DEER	226,743	0.075	1.20	51.7	2,878,029	15.44	188,428	83.5
BUCK	182,414	0.060	0.97	48.0				
DOE	44,634	0.015	0.24	16.6				
ARCHERY DEER	17,815	0.044	0.45	27.0	345,343	8.97	40,038	17.7
BUCK	10,149	0.025	0.25	19.5				
DOE	7,666	0.020	0.19	16.5				
PRIMITIVE DEER	22,717	0.095	0.51	35.7	212,923	5.04	43,815	19.4
BUCK	11,034	0.045	0.25	21.2				
DOE	11,683	0.051	0.26	22.7				
GUN DEER	186,857	0.078	1.01	50.3	2,306,701	12.67	184,327	81.6
BUCK	161,603	0.067	0.88	47.4				
DOE	25,242	0.011	0.14	10.9				
TOTAL TURKEY	50,129	0.119	0.95	52.4	408,227	7.92	52,824	23.0
SPRING 1984	50,129	0.119	0.95	52.4	408,227	7.92	52,824	23.0
FALL 1984	0	.	.	.	0	.	0	0.0

(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 1984-85 HUNTING SEASON.

SPECIES	TOTAL HARVEST	STANDARD ERROR		95% CONFIDENCE INTERVAL	
		SE	AS % OF TOTAL(A)	LOWER LIMIT	UPPER LIMIT
DOVE	2,621,340	114,040	4.4	2,393,260	2,849,420
QUAIL	854,804	87,960	10.3	678,884	1,030,724
WOODCOCK	35,317	8,294	23.5	18,729	51,905
RABBIT	1,252,815	75,736	6.0	1,101,343	1,404,287
SQUIRREL	2,609,101	101,241	3.9	2,406,619	2,811,583
RACCOON	241,990	37,912	15.7	166,166	317,814
ALL DUCKS	565,598	50,855	9.0	463,888	667,308
MALLARD	279,832	32,866	11.7	214,100	345,564
WOOD DUCK	180,607	18,200	10.1	144,207	217,007
OTHER DUCKS	109,504	13,530	12.4	82,444	136,564
GEESE	3,407	1,200	35.2	1,007	5,807
RED FOX	2,725	801	29.4	1,123	4,327
GRAY FOX	2,612	841	32.2	930	4,294
BOBCAT	8,063	1,561	19.4	4,941	11,185
COYOTE	28,062	3,759	13.4	20,544	35,580
TOTAL DEER	226,743	7,933	3.5	210,877	242,609
BUCK	182,414	6,551	3.6	169,312	195,516
DOE	44,634	2,839	6.4	38,956	50,312
ARCHERY DEER	17,815	1,956	11.0	13,903	21,727
BUCK	10,149	1,277	12.6	7,595	12,703
DOE	7,666	1,028	13.4	5,610	9,722
PRIMITIVE DEER	22,717	2,095	9.2	18,527	26,907
BUCK	11,034	1,239	11.2	8,556	13,512
DOE	11,683	1,264	10.8	9,155	14,211
GUN DEER	186,857	6,420	3.4	174,017	199,697
BUCK	161,603	5,755	3.6	150,093	173,113
DOE	25,242	1,995	7.9	21,252	29,232
TOTAL TURKEY	50,129	3,565	7.1	42,999	57,259
SPRING 1984	50,129	3,565	7.1	42,999	57,259
FALL 1984	0	0	.	0	0

(A) $\% = 100(SE/TOTAL \text{ HARVEST})$

TABLE 3. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF QOVE HUNTING IN MISSISSIPPI DURING THE 1984-85 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	519,718 (59,911) 2,236	6.82 (0.30) 181	25.03 (2.27) 181	96.1 (1.4) 181	76,145 (8,084) 2,237	3.67 (0.29) 181	20,719 (1,477) 960	18.9 (1.3) 960
2	ESTIMATE (SE) N	1,192,484 (83,798) 2,236	5.93 (0.30) 418	24.81 (1.36) 419	94.5 (1.1) 421	202,290 (12,943) 2,237	4.18 (0.19) 422	48,536 (2,123) 960	44.2 (1.6) 960
3	ESTIMATE (SE) N	144,213 (25,632) 2,236	5.26 (0.46) 67	18.76 (2.47) 67	94.0 (2.9) 67	27,408 (4,315) 2,237	3.57 (0.36) 67	7,670 (923) 960	7.0 (0.8) 960
4	ESTIMATE (SE) N	596,012 (55,281) 2,236	5.79 (0.37) 227	22.69 (1.56) 229	91.3 (1.9) 229	102,292 (9,055) 2,237	3.93 (0.25) 227	26,214 (1,642) 960	23.9 (1.4) 960
5	ESTIMATE (SE) N	166,126 (31,310) 2,236	6.52 (0.95) 59	24.54 (3.41) 59	89.8 (4.0) 59	25,458 (4,460) 2,237	3.76 (0.45) 59	6,754 (868) 960	6.1 (0.8) 960
-----									PERCENT CF TOTAL LICENSEES
STATEWIDE	ESTIMATE (SE) N	2,621,340 (114,040) 2,253	6.03 (0.18) 967	23.69 (0.86) 972	93.5 (0.8) 974	435,182 (17,089) 2,253	3.93 (0.12) 972	111,062 (2,675) 2,259	43.3 (1.0) 2,259

TABLE 4. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF QUAIL HUNTING IN MISSISSIPPI DURING THE 1984-85 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	83,036 (25,693) 2,246	2.54 (0.45) 41	17.73 (4.81) 41	82.9 (5.9) 41	32,681 (9,248) 2,245	6.98 (1.67) 41	4,681 (724) 390	10.5 (1.6) 390
2	ESTIMATE (SE) N	496,046 (69,438) 2,246	3.15 (0.27) 208	20.88 (2.58) 208	90.4 (2.0) 208	157,690 (17,156) 2,245	6.63 (0.57) 208	23,747 (1,569) 390	53.3 (2.5) 390
3	ESTIMATE (SE) N	23,529 (8,976) 2,246	2.58 (0.53) 19	10.84 (3.40) 19	94.7 (5.3) 19	9,141 (3,871) 2,245	4.21 (1.54) 19	2,169 (496) 390	4.9 (1.1) 390
4	ESTIMATE (SE) N	145,284 (31,780) 2,246	2.40 (0.36) 87	14.29 (2.77) 89	87.6 (3.5) 89	60,562 (10,230) 2,245	6.09 (0.81) 87	10,161 (1,056) 390	22.8 (2.1) 390
5	ESTIMATE (SE) N	98,227 (37,427) 2,246	3.06 (0.68) 32	26.88 (9.23) 32	93.8 (4.3) 32	32,795 (9,610) 2,245	8.70 (2.09) 33	3,767 (651) 390	8.5 (1.4) 390
STATEWIDE									PERCENT CF TOTAL LICENSEES
	ESTIMATE (SE) N	854,804 (87,960) 2,258	2.87 (0.19) 396	18.76 (1.74) 401	89.5 (1.5) 401	298,529 (24,006) 2,254	6.61 (0.44) 397	45,651 (2,065) 2,259	17.8 (0.8) 2,259

TABLE 5. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF WOODSCK HUNTING IN MISSISSIPPI DURING THE 1984-85 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	341 (254) 2,257	1.50 (0.50) 2	1.50 (0.50) 2	100.0 (0.0) 2	228 (161) 2,254	1.00 (0.00) 2	227 (161) 54	3.7 (2.6) 54
2	ESTIMATE (SE) N	16,822 (6,082) 2,257	1.00 (0.34) 20	6.90 (2.11) 21	90.5 (6.6) 21	16,389 (5,446) 2,254	7.20 (1.82) 20	2,387 (519) 54	38.9 (6.7) 54
3	ESTIMATE (SE) N	2,046 (1,344) 2,257	1.20 (0.68) 4	4.50 (2.22) 4	75.0 (25.0) 4	1,707 (1,199) 2,254	3.75 (2.14) 4	455 (227) 54	7.4 (3.6) 54
4	ESTIMATE (SE) N	11,934 (5,247) 2,257	1.10 (0.48) 16	6.18 (2.34) 17	88.2 (8.1) 17	10,698 (4,320) 2,254	5.88 (1.93) 16	1,932 (467) 54	31.5 (6.4) 54
5	ESTIMATE (SE) N	3,978 (1,688) 2,257	0.74 (0.34) 9	3.40 (1.08) 10	80.0 (13.3) 10	4,894 (2,505) 2,254	4.78 (1.97) 9	1,137 (359) 54	18.5 (5.3) 54
PERCENT OF TOTAL LICENSEES									
STATEWIDE	ESTIMATE (SE) N	35,317 (8,294) 2,259	1.01 (0.23) 52	5.48 (1.09) 56	87.5 (4.5) 56	34,015 (7,463) 2,255	5.75 (0.99) 52	6,359 (839) 2,259	2.5 (0.3) 2,259

TABLE 6. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF RABBIT HUNTING IN MISSISSIPPI DURING THE 1984-85 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	183,838 (31,065) 2,195	1.91 (0.21) 124	12.58 (1.83) 125	91.2 (2.5) 125	96,980 (15,647) 2,177	6.64 (0.90) 124	14,569 (1,266) 883	14.2 (1.2) 883
2	ESTIMATE (SE) N	344,653 (37,585) 2,195	1.50 (0.13) 311	9.37 (0.90) 314	85.4 (2.0) 316	223,302 (21,178) 2,177	6.07 (0.48) 312	37,064 (1,923) 883	36.0 (1.6) 883
3	ESTIMATE (SE) N	102,262 (20,364) 2,195	2.03 (0.26) 73	11.82 (1.94) 74	89.2 (3.6) 74	50,317 (8,359) 2,177	5.85 (0.71) 73	8,625 (986) 883	8.4 (0.9) 883
4	ESTIMATE (SE) N	344,653 (38,556) 2,195	1.74 (0.14) 248	11.39 (1.09) 259	90.0 (1.9) 260	189,129 (18,367) 2,177	6.45 (0.49) 249	30,304 (1,765) 883	29.4 (1.5) 883
5	ESTIMATE (SE) N	248,234 (45,990) 2,195	2.00 (0.19) 100	20.23 (3.23) 105	93.3 (2.4) 105	98,512 (14,117) 2,177	8.28 (0.88) 101	12,355 (1,171) 883	12.0 (1.1) 883
-----									PERCENT CF
									TOTAL
									LICENSEES
-----									-----
STATEWIDE	ESTIMATE (SE) N	1,252,815 (75,736) 2,252	1.72 (0.07) 897	11.77 (0.65) 934	88.6 (1.0) 938	680,191 (34,057) 2,218	6.53 (0.28) 900	106,860 (2,661) 2,259	41.7 (1.0) 2,259

TABLE 7. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF SQUIRREL HUNTING IN MISSISSIPPI DURING THE 1984-85 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	311,058 (37,893) 2,183	2.70 (0.26) 201	12.98 (1.33) 204	91.7 (1.9) 205	115,593 (11,786) 2,166	4.83 (0.37) 202	24,119 (1,600) 1,325	15.5 (1.0) 1,325
2	ESTIMATE (SE) N	973,364 (65,110) 2,183	2.45 (0.12) 499	16.37 (0.89) 506	91.7 (1.2) 508	388,943 (24,993) 2,166	6.57 (0.33) 500	59,713 (2,317) 1,325	38.5 (1.3) 1,325
3	ESTIMATE (SE) N	314,701 (44,164) 2,183	2.86 (0.28) 134	19.84 (2.25) 135	92.6 (2.3) 135	110,619 (13,402) 2,166	6.97 (0.61) 134	15,806 (1,318) 1,325	10.2 (0.8) 1,325
4	ESTIMATE (SE) N	683,694 (56,173) 2,183	2.70 (0.17) 343	16.58 (1.10) 351	94.0 (1.3) 351	237,345 (19,369) 2,166	5.84 (0.38) 343	41,097 (2,011) 1,325	26.5 (1.2) 1,325
5	ESTIMATE (SE) N	279,800 (42,652) 2,183	2.65 (0.29) 119	19.68 (2.45) 121	95.9 (1.8) 122	105,053 (14,450) 2,166	7.33 (0.78) 121	14,401 (1,262) 1,325	9.3 (0.8) 1,325
-----									PERCENT OF TOTAL LICENSEES
STATEWIDE	ESTIMATE (SE) N	2,609,101 (101,241) 2,250	2.56 (0.08) 1,346	16.53 (0.58) 1,384	92.6 (0.7) 1,388	988,042 (36,370) 2,216	6.32 (0.21) 1,350	158,189 (2,625) 2,259	61.7 (1.0) 2,259

TABLE 8. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BACCOON HUNTING IN MISSISSIPPI DURING THE 1984-85 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	80,216 (31,255) 2,245	2.19 (0.53) 41	16.71 (6.06) 42	88.1 (5.1) 42	36,533 (8,968) 2,233	7.76 (1.50) 41	4,797 (733) 216	19.4 (2.7) 216
2	ESTIMATE (SE) N	89,929 (17,707) 2,245	0.66 (0.07) 77	9.84 (1.62) 80	91.3 (3.2) 80	129,817 (24,874) 2,233	14.68 (2.30) 77	9,137 (1,003) 216	37.0 (3.3) 216
3	ESTIMATE (SE) N	15,883 (5,588) 2,245	0.73 (0.09) 21	6.04 (1.76) 23	100.0 (0.0) 24	21,368 (6,814) 2,233	5.86 (2.12) 21	2,741 (557) 216	11.1 (2.1) 216
4	ESTIMATE (SE) N	32,452 (8,286) 2,245	0.48 (0.12) 54	4.90 (1.09) 58	87.9 (4.3) 58	66,517 (16,662) 2,233	10.72 (2.29) 54	6,625 (859) 216	26.9 (3.0) 216
5	ESTIMATE (SE) N	14,512 (7,704) 2,245	0.88 (0.15) 10	10.58 (4.23) 12	83.3 (11.2) 12	4,825 (2,494) 2,233	4.20 (1.81) 10	1,371 (395) 216	5.6 (1.6) 216
									PERCENT OF TOTAL LICENSEES
STATEWIDE	ESTIMATE (SE) N	241,990 (37,912) 2,258	0.84 (0.12) 211	9.34 (1.34) 228	90.4 (2.0) 229	264,774 (31,876) 2,241	10.96 (1.11) 211	26,005 (1,629) 2,259	10.1 (0.6) 2,259

TABLE 9. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ALL-DUCK HUNTING IN MISSISSIPPI DURING THE 1984-85 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	271,528 (38,084) 2,241	2.12 (0.15) 122	18.83 (2.09) 126	89.8 (2.7) 127	125,163 (14,914) 2,232	8.85 (0.72) 123	14,519 (1,252) 321	39.6 (2.7) 321
2	ESTIMATE (SE) N	163,810 (27,210) 2,241	1.62 (0.13) 100	14.03 (1.90) 102	86.3 (3.4) 102	96,200 (13,533) 2,232	8.37 (0.85) 100	11,889 (1,139) 321	32.4 (2.6) 321
3	ESTIMATE (SE) N	40,523 (11,718) 2,241	1.41 (0.26) 19	17.70 (3.35) 20	85.0 (8.2) 20	25,170 (8,203) 2,232	11.53 (2.75) 19	2,286 (509) 321	6.2 (1.4) 321
4	ESTIMATE (SE) N	27,702 (7,555) 2,241	1.12 (0.19) 43	5.26 (1.23) 46	76.1 (6.4) 46	23,217 (4,888) 2,232	4.70 (0.70) 43	5,259 (768) 321	14.3 (2.0) 321
5	ESTIMATE (SE) N	39,607 (15,843) 2,241	1.83 (0.40) 24	14.42 (5.07) 24	75.0 (9.0) 24	21,722 (7,272) 2,232	7.88 (2.14) 24	2,744 (557) 321	7.5 (1.5) 321
-----									PERCENT OF TOTAL LICENSEES
STATEWIDE	ESTIMATE (SE) N	565,598 (50,855) 2,256	1.80 (0.09) 322	14.94 (1.11) 333	85.9 (1.9) 334	302,904 (23,256) 2,246	8.21 (0.47) 323	38,156 (1,921) 2,259	14.9 (0.7) 2,259

TABLE 10. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF MALLARD, WOOD DUCK, AND OTHER DUCK HUNTING IN MISSISSIPPI DURING THE 1984-85 HUNTING SEASON.

REGION	STATISTIC	MALLARDS				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
1	ESTIMATE (SE) N	162,592 (25,978) 2,242	1.24 (0.12) 123	11.19 (1.51) 127	82.7 (3.4) 127	62,131 (9,638) 2,242	0.47 (0.06) 123	4.28 (0.55) 127	64.6 (4.3) 127	51,284 (8,710) 2,241	0.40 (0.05) 122	3.56 (0.52) 126	47.2 (4.4) 127
2	ESTIMATE (SE) N	86,731 (19,561) 2,242	0.85 (0.14) 100	7.43 (1.52) 102	65.7 (4.7) 102	51,032 (8,119) 2,242	0.51 (0.06) 100	4.37 (0.55) 102	66.7 (4.7) 102	25,985 (4,193) 2,241	0.27 (0.05) 100	2.23 (0.49) 102	33.3 (4.7) 102
3	ESTIMATE (SE) N	12,586 (4,536) 2,242	0.39 (0.14) 19	5.50 (1.60) 20	60.0 (11.2) 20	18,307 (5,312) 2,242	0.68 (0.14) 19	8.00 (1.53) 20	85.0 (8.2) 20	9,616 (3,994) 2,241	0.34 (0.10) 19	4.20 (1.51) 20	50.0 (11.5) 20
4	ESTIMATE (SE) N	3,089 (1,257) 2,242	0.11 (0.04) 43	0.59 (0.23) 46	19.6 (5.9) 46	19,680 (4,658) 2,242	0.79 (0.13) 43	3.74 (0.70) 46	69.6 (6.9) 46	4,922 (3,526) 2,241	0.21 (0.13) 43	0.93 (0.66) 46	10.9 (4.6) 46
5	ESTIMATE (SE) N	3,204 (1,362) 2,242	0.15 (0.06) 24	1.17 (0.45) 24	41.7 (10.3) 24	23,571 (11,432) 2,242	1.09 (0.29) 24	8.58 (3.86) 24	62.5 (10.1) 24	12,821 (6,192) 2,241	0.59 (0.27) 24	4.47 (2.09) 24	33.3 (9.8) 24
STATEWIDE	ESTIMATE (SE) N	279,832 (32,866) 2,257	0.87 (0.08) 323	7.37 (0.78) 334	63.5 (2.6) 334	180,607 (18,200) 2,257	0.57 (0.04) 323	4.76 (0.42) 334	67.7 (2.6) 334	109,504 (13,530) 2,256	0.35 (0.04) 322	2.89 (0.33) 333	36.8 (2.6) 334

TABLE 11. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GOOSE HUNTING IN MISSISSIPPI DURING THE 1984-85 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	PERCENT CF TOTAL LICENSEES
1	ESTIMATE (SE) N	454 (278) 2,258	0.06 (0.06) 4	0.80 (0.37) 5	60.0 (24.5) 5	3,866 (2,656) 2,256	8.50 (4.63) 4	568 (254) 19	26.3 (10.4) 19	
2	ESTIMATE (SE) N	2,727 (1,146) 2,258	0.18 (0.04) 12	1.85 (0.61) 13	61.5 (14.0) 13	10,803 (3,958) 2,256	7.92 (1.87) 12	1,477 (409) 19	68.4 (11.0) 19	
3	ESTIMATE (SE) N	0 (0) 2,258	0.00 (.) 1	0.00 (.) 1	0.0 (.) 1	227 (227) 2,256	2.00 (.) 1	114 (114) 19	5.3 (5.3) 19	
4	ESTIMATE (SE) N	0 (0) 2,258	(.) (.) .	(.) (.) .	(.) (.) .	0 (0) 2,256	(.) (.) .	0 (0) 19	0.0 (0.0) 19	
5	ESTIMATE (SE) N	0 (0) 2,258	(.) (.) .	(.) (.) .	(.) (.) .	0 (0) 2,256	(.) (.) .	0 (0) 19	0.0 (0.0) 19	
STATEWIDE	ESTIMATE (SE) N	3,407 (1,200) 2,259	0.15 (0.04) 17	1.50 (0.42) 20	60.0 (11.2) 20	14,896 (4,768) 2,256	7.71 (1.67) 17	2,271 (506) 2,259	0.9 (0.2) 2,259	

TABLE 12. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF RED-FOX HUNTING IN MISSISSIPPI DURING THE 1984-85 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	455 (278) 2,256	0.02 (0.02) 7	0.57 (0.30) 7	42.9 (20.2) 7	19,470 (14,042) 2,253	24.43 (16.21) 7	796 (300) 33	21.2 (7.2) 33
2	ESTIMATE (SE) N	1,137 (622) 2,256	0.01 (0.01) 10	0.91 (0.44) 11	54.5 (15.7) 11	42,812 (25,862) 2,253	37.60 (20.41) 10	1,251 (376) 33	33.3 (8.3) 33
3	ESTIMATE (SE) N	227 (161) 2,256	0.09 (0.13) 2	0.67 (0.33) 3	66.7 (33.3) 3	1,252 (973) 2,253	5.50 (2.50) 2	341 (197) 33	9.1 (5.1) 33
4	ESTIMATE (SE) N	569 (301) 2,256	0.06 (0.04) 8	0.56 (0.24) 9	44.4 (17.6) 9	9,906 (4,443) 2,253	10.88 (3.22) 8	1,023 (341) 33	27.3 (7.9) 33
5	ESTIMATE (SE) N	0 (0) 2,256	0.00 (0.00) 3	0.00 (0.00) 3	0.0 (0.0) 3	1,252 (797) 2,253	3.67 (1.20) 3	341 (197) 33	9.1 (5.1) 33
									PERCENT OF TOTAL LICENSEES
STATEWIDE	ESTIMATE (SE) N	2,725 (801) 2,259	0.03 (0.01) 32	0.67 (0.16) 36	47.2 (8.4) 36	76,106 (29,759) 2,255	20.91 (7.42) 32	4,088 (676) 2,259	1.6 (0.3) 2,259

TABLE 13. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GRAY FOX HUNTING IN MISSISSIPPI DURING THE 1984-85 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	227 (161) 2,258	0.01 (0.01) 4	0.50 (0.29) 4	50.0 (28.9) 4	18,429 (14,004) 2,255	40.50 (26.77) 4	454 (227) 28	14.3 (6.7) 28
2	ESTIMATE (SE) N	1,363 (579) 2,258	0.03 (0.02) 11	0.92 (0.31) 13	61.5 (14.0) 13	44,594 (25,873) 2,255	35.64 (18.54) 11	1,477 (409) 28	46.4 (9.6) 28
3	ESTIMATE (SE) N	114 (114) 2,258	0.13 (0.22) 2	0.50 (0.50) 2	50.0 (50.0) 2	910 (804) 2,255	4.00 (3.00) 2	227 (161) 28	7.1 (5.0) 28
4	ESTIMATE (SE) N	568 (468) 2,258	0.07 (0.06) 6	0.71 (0.57) 7	28.6 (18.4) 7	8,418 (4,338) 2,255	12.33 (4.26) 6	795 (300) 28	25.0 (8.3) 28
5	ESTIMATE (SE) N	0 (0) 2,258	0.00 (0.00) 2	0.00 (0.00) 2	0.0 (0.0) 2	1,024 (763) 2,255	4.50 (1.50) 2	227 (161) 28	7.1 (5.0) 28
STATEWIDE									PERCENT OF TOTAL LICENSEES
	ESTIMATE (SE) N	2,612 (841) 2,259	0.03 (0.02) 26	0.79 (0.21) 29	48.3 (9.4) 29	73,798 (29,726) 2,256	24.96 (8.97) 26	3,293 (608) 2,259	1.3 (0.2) 2,259

TABLE 14. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BOBCAT HUNTING IN MISSISSIPPI DURING THE 1984-85 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	682 (321) 2,256	0.36 (0.22) 6	0.86 (0.26) 7	71.4 (18.4) 7	1,257 (615) 2,245	1.83 (0.54) 6	796 (300) 45	15.6 (5.5) 45
2	ESTIMATE (SE) N	2,843 (1,119) 2,256	0.47 (0.28) 9	1.79 (0.54) 14	92.9 (7.1) 14	2,171 (1,203) 2,245	2.11 (0.99) 9	1,592 (424) 45	31.1 (7.0) 45
3	ESTIMATE (SE) N	455 (227) 2,256	1.00 (0.00) 3	1.00 (0.00) 4	100.0 (0.0) 4	343 (198) 2,245	1.00 (0.00) 3	455 (227) 45	8.9 (4.3) 45
4	ESTIMATE (SE) N	2,615 (794) 2,256	0.53 (0.16) 12	1.44 (0.26) 16	87.5 (8.5) 16	3,428 (1,416) 2,245	2.50 (0.77) 12	1,819 (453) 45	35.6 (7.2) 45
5	ESTIMATE (SE) N	796 (495) 2,256	0.16 (0.12) 4	1.75 (0.75) 4	100.0 (0.0) 4	5,142 (3,643) 2,245	11.25 (6.52) 4	455 (227) 45	8.9 (4.3) 45
STATEWIDE									PERCENT OF TOTAL LICENSEES
	ESTIMATE (SE) N	8,063 (1,561) 2,259	0.37 (0.11) 35	1.48 (0.20) 48	89.6 (4.5) 48	12,907 (4,172) 2,246	3.23 (0.90) 35	5,451 (779) 2,259	2.1 (0.3) 2,259

TABLE 15. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF FOYDIE HUNTING IN MISSISSIPPI DURING THE 1984-85 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	3,996 (1,167) 2,247	0.06 (0.04) 16	1.43 (0.33) 23	65.2 (10.2) 23	25,943 (14,769) 2,215	14.00 (7.40) 16	2,625 (545) 128	18.0 (3.4) 128
2	ESTIMATE (SE) N	12,558 (2,635) 2,247	0.22 (0.05) 41	2.10 (0.34) 52	88.5 (4.5) 52	40,651 (11,025) 2,215	8.56 (1.93) 41	5,934 (814) 128	40.6 (4.4) 128
3	ESTIMATE (SE) N	1,370 (582) 2,247	0.08 (0.07) 8	1.20 (0.36) 10	80.0 (13.3) 10	13,666 (11,667) 2,215	14.75 (12.25) 8	1,141 (360) 128	7.8 (2.4) 128
4	ESTIMATE (SE) N	7,421 (2,281) 2,247	0.18 (0.06) 24	1.97 (0.51) 33	79.4 (7.0) 34	20,152 (7,723) 2,215	7.25 (2.41) 24	3,880 (660) 128	26.6 (3.9) 128
5	ESTIMATE (SE) N	1,142 (510) 2,247	0.54 (0.17) 6	1.11 (0.35) 9	66.7 (16.7) 9	1,506 (741) 2,215	2.17 (0.65) 6	1,027 (342) 128	7.0 (2.3) 128
PERCENT OF TOTAL LICENSEES									
STATEWIDE	ESTIMATE (SE) N	28,062 (3,759) 2,258	0.16 (0.03) 99	1.77 (0.19) 138	80.6 (3.4) 139	104,740 (23,096) 2,219	9.15 (1.82) 99	15,785 (1,297) 2,259	6.2 (0.5) 2,259

TABLE 16. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ARCHERY-DEER HUNTING IN MISSISSIPPI DURING THE 1984-85 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	3,261 (781) 2,077	0.052 (0.009) 61	0.48 (0.10) 62	32.3 (6.0) 62	63,005 (10,454) 2,064	9.44 (1.03) 61	6,736 (843) 357	17.4 (2.0) 357
2	ESTIMATE (SE) N	4,783 (929) 2,077	0.038 (0.007) 121	0.35 (0.06) 124	25.0 (3.9) 124	113,978 (13,385) 2,064	8.61 (0.67) 121	13,581 (1,178) 357	35.0 (2.5) 357
3	ESTIMATE (SE) N	3,370 (951) 2,077	0.068 (0.016) 40	0.72 (0.17) 43	37.2 (7.5) 43	41,785 (8,130) 2,064	9.55 (1.12) 40	4,672 (705) 357	12.0 (1.7) 357
4	ESTIMATE (SE) N	4,022 (975) 2,077	0.038 (0.010) 89	0.39 (0.09) 94	22.3 (4.3) 94	80,616 (11,082) 2,064	8.28 (0.75) 89	10,213 (1,030) 357	26.3 (2.3) 357
5	ESTIMATE (SE) N	1,196 (473) 2,077	0.034 (0.011) 32	0.33 (0.12) 33	21.2 (7.2) 33	35,768 (8,050) 2,064	10.22 (1.46) 32	3,585 (619) 357	9.2 (1.5) 357
									PERCENT CF TOTAL LICENSEE(A)
STATEWIDE	ESTIMATE (SE) N	17,815 (1,956) 2,091	0.044 (0.004) 354	0.45 (0.04) 370	27.0 (2.3) 370	345,343 (22,592) 2,075	8.97 (0.39) 354	40,038 (1,886) 2,092	17.7 (0.8) 2,092

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

TABLE 17. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ARCHERY-BUCK-AND-DOE HUNTING IN MISSISSIPPI DURING THE 1984-85 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	1,739 (509) 2,077	0.028 (0.007) 61	0.26 (0.07) 62	21.0 (5.2) 62	1,522 (405) 2,077	0.024 (0.006) 61	0.23 (0.05) 62	22.6 (5.4) 62
2	ESTIMATE (SE) N	2,826 (631) 2,077	0.023 (0.005) 121	0.21 (0.04) 124	17.7 (3.4) 124	1,957 (508) 2,077	0.015 (0.004) 121	0.15 (0.04) 124	12.9 (3.0) 124
3	ESTIMATE (SE) N	1,848 (520) 2,077	0.034 (0.008) 40	0.40 (0.09) 43	32.6 (7.2) 43	1,522 (332) 2,077	0.034 (0.010) 40	0.33 (0.10) 43	23.3 (6.5) 43
4	ESTIMATE (SE) N	2,174 (651) 2,077	0.019 (0.006) 89	0.21 (0.06) 94	14.9 (3.7) 94	1,848 (520) 2,077	0.019 (0.006) 89	0.18 (0.05) 94	14.9 (3.7) 94
5	ESTIMATE (SE) N	761 (360) 2,077	0.021 (0.009) 32	0.21 (0.09) 33	15.2 (6.3) 33	435 (217) 2,077	0.012 (0.005) 32	0.12 (0.06) 33	12.1 (5.8) 33
STATEWIDE	ESTIMATE (SE) N	10,149 (1,277) 2,091	0.025 (0.003) 354	0.25 (0.03) 370	19.5 (2.1) 370	7,666 (1,028) 2,091	0.020 (0.003) 354	0.19 (0.02) 370	16.5 (1.9) 370

TABLE 18. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF PRIMITIVE-WEAPON-DEER HUNTING IN MISSISSIPPI DURING THE 1984-85 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	3,592 (774) 2,074	0.106 (0.019) 67	0.49 (0.09) 68	36.8 (5.9) 68	33,253 (4,751) 2,064	4.47 (0.35) 68	7,493 (887) 393	17.6 (1.9) 393
2	ESTIMATE (SE) N	5,878 (1,001) 2,074	0.073 (0.011) 134	0.40 (0.06) 136	30.1 (3.9) 136	78,647 (8,112) 2,064	5.29 (0.33) 136	15,203 (1,241) 393	35.6 (2.4) 393
3	ESTIMATE (SE) N	4,137 (994) 2,074	0.126 (0.027) 48	0.75 (0.15) 51	47.1 (7.1) 51	28,659 (4,653) 2,064	5.46 (0.43) 48	5,538 (766) 393	13.0 (1.7) 393
4	ESTIMATE (SE) N	6,531 (1,214) 2,074	0.111 (0.019) 99	0.58 (0.09) 104	35.6 (4.7) 104	51,082 (5,934) 2,064	4.72 (0.29) 99	11,294 (1,080) 393	26.5 (2.2) 393
5	ESTIMATE (SE) N	1,524 (532) 2,074	0.092 (0.029) 27	0.48 (0.15) 29	34.5 (9.0) 29	16,736 (3,562) 2,064	5.67 (0.54) 27	3,149 (581) 393	7.4 (1.3) 393
-----									PERCENT OF TOTAL LICENSEE(A)
STATEWIDE	ESTIMATE (SE) N	22,717 (2,095) 2,087	0.095 (0.008) 385	0.51 (0.04) 401	35.7 (2.4) 401	212,923 (12,088) 2,074	5.04 (0.17) 388	43,815 (1,953) 2,092	19.4 (0.9) 2,092

(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 1984-85 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	1,415 (391) 2,074	0.040 (0.010) 67	0.19 (0.05) 68	19.1 (4.8) 68	2,177 (531) 2,074	0.066 (0.015) 67	0.29 (0.06) 68	26.5 (5.4) 68
2	ESTIMATE (SE) N	2,939 (641) 2,074	0.036 (0.007) 134	0.20 (0.04) 136	16.9 (3.2) 136	2,939 (603) 2,074	0.036 (0.007) 134	0.20 (0.04) 136	18.4 (3.3) 136
3	ESTIMATE (SE) N	2,068 (564) 2,074	0.057 (0.015) 48	0.37 (0.09) 51	29.4 (6.4) 51	2,068 (605) 2,074	0.069 (0.018) 48	0.37 (0.10) 51	27.5 (6.3) 51
4	ESTIMATE (SE) N	3,266 (702) 2,074	0.056 (0.011) 99	0.29 (0.06) 104	24.0 (4.2) 104	3,266 (702) 2,074	0.056 (0.012) 99	0.29 (0.06) 104	23.1 (4.2) 104
5	ESTIMATE (SE) N	871 (344) 2,074	0.052 (0.019) 27	0.28 (0.10) 29	24.1 (8.1) 29	653 (266) 2,074	0.039 (0.014) 27	0.21 (0.08) 29	20.7 (7.7) 29
STATEWIDE	ESTIMATE (SE) N	11,034 (1,239) 2,087	0.045 (0.005) 385	0.25 (0.03) 401	21.2 (2.0) 401	11,683 (1,264) 2,087	0.051 (0.005) 385	0.26 (0.03) 401	22.7 (2.1) 401

TABLE 20. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF REGULAR_GUN_DEER HUNTING IN MISSISSIPPI DURING THE 1984-85 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	30,193 (2,999) 2,004	0.091 (0.007) 233	1.13 (0.09) 238	56.3 (3.2) 238	330,426 (25,653) 1,935	12.10 (0.58) 234	26,805 (1,628) 1,629	14.7 (0.9) 1,629
2	ESTIMATE (SE) N	60,610 (4,053) 2,004	0.067 (0.004) 583	0.87 (0.05) 615	47.0 (2.0) 615	877,753 (40,345) 1,935	12.84 (0.39) 586	69,536 (2,324) 1,629	38.1 (1.2) 1,629
3	ESTIMATE (SE) N	28,728 (3,004) 2,004	0.100 (0.007) 190	1.31 (0.10) 195	60.5 (3.5) 195	283,056 (24,413) 1,935	12.77 (0.66) 190	21,870 (1,489) 1,629	12.0 (0.8) 1,629
4	ESTIMATE (SE) N	53,400 (4,195) 2,004	0.081 (0.005) 415	1.08 (0.07) 439	48.9 (2.4) 440	626,550 (34,486) 1,935	12.91 (0.44) 416	49,460 (2,082) 1,629	27.1 (1.1) 1,629
5	ESTIMATE (SE) N	12,730 (1,947) 2,004	0.065 (0.009) 124	0.85 (0.11) 133	45.9 (4.3) 133	192,982 (21,043) 1,935	13.23 (0.88) 125	15,029 (1,255) 1,629	8.2 (0.7) 1,629
PERCENT CF TOTAL LICENSEE(A)									
STATEWIDE	ESTIMATE (SE) N	186,857 (6,420) 2,083	0.078 (0.003) 1,595	1.01 (0.03) 1,699	50.3 (1.2) 1,700	2,306,701 (48,801) 1,985	12.67 (0.23) 1,601	184,327 (1,911) 2,092	81.6 (0.8) 2,092

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

TABLE 21. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF REGULAR-GUN-BUCK-AND-DQE HUNTING IN MIS DURING THE 1984-85 HUNTING SEASON.

REGION	STATISTIC	TOTAL HARVEST	BUCKS			TOTAL HARVEST	AVERAGE DAILY KILL	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL
			AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST						
1	ESTIMATE (SE) N	23,658 (2,479) 2,004	0.070 (0.006) 233	0.88 (0.08) 238		6,531 (1,105) 2,005	0.020 (0.003) 233	51.3 (3.2) 238		
2	ESTIMATE (SE) N	51,823 (3,593) 2,004	0.057 (0.003) 583	0.75 (0.05) 615		8,783 (1,186) 2,005	0.010 (0.001) 583	43.4 (2.0) 615		
3	ESTIMATE (SE) N	25,123 (2,672) 2,004	0.087 (0.006) 190	1.14 (0.09) 195		3,603 (854) 2,005	0.013 (0.003) 190	57.4 (3.5) 195		
4	ESTIMATE (SE) N	47,880 (3,793) 2,004	0.072 (0.005) 415	0.97 (0.06) 439		5,518 (981) 2,005	0.009 (0.002) 416	47.7 (2.4) 440		
5	ESTIMATE (SE) N	11,717 (1,840) 2,004	0.060 (0.008) 124	0.78 (0.10) 133		1,013 (337) 2,005	0.005 (0.002) 124	42.9 (4.3) 133		
STATEWIDE	ESTIMATE (SE) N	161,603 (5,755) 2,083	0.067 (0.002) 1,595	0.88 (0.03) 1,699		25,242 (1,995) 2,084	0.011 (0.001) 1,596	47.4 (1.2) 1,700		

TABLE 22. EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF SPRING TURKEY HUNTING IN MISSISSIPPI DURING THE 1984 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	3,533 (866) 1,886	0.111 (0.020) 47	0.62 (0.12) 47	42.6 (7.3) 47	32,069 (6,269) 1,877	5.57 (0.74) 47	5,716 (824) 422	11.1 (1.5) 422
2	ESTIMATE (SE) N	7,553 (1,357) 1,886	0.073 (0.010) 88	0.68 (0.10) 91	44.0 (5.2) 91	97,187 (13,989) 1,877	8.82 (0.89) 90	11,311 (1,144) 422	22.0 (2.0) 422
3	ESTIMATE (SE) N	11,938 (1,727) 1,886	0.151 (0.013) 80	1.20 (0.12) 82	65.9 (5.3) 82	76,991 (11,083) 1,877	7.86 (0.74) 80	9,973 (1,077) 422	19.4 (1.9) 422
4	ESTIMATE (SE) N	22,536 (2,633) 1,886	0.134 (0.010) 157	1.15 (0.10) 161	55.9 (3.9) 161	161,938 (17,154) 1,877	8.43 (0.62) 157	19,582 (1,476) 422	38.2 (2.4) 422
5	ESTIMATE (SE) N	4,020 (1,079) 1,886	0.122 (0.024) 36	0.87 (0.19) 38	47.4 (8.2) 38	32,069 (7,497) 1,877	7.28 (1.22) 36	4,743 (752) 422	9.2 (1.4) 422
STATEWIDE									PERCENT OF TOTAL LICENSEE(A)
	ESTIMATE (SE) N	50,129 (3,565) 1,902	0.119 (0.006) 422	0.95 (0.05) 435	52.4 (2.4) 435	408,227 (25,536) 1,891	7.92 (0.36) 424	52,824 (2,216) 1,905	23.0 (1.0) 1,905

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

TABLE 23 - EXPANDED STATEWIDE SUMMARIES OF ALL-DEER, BUCK, AND DOE HUNTING IN MISSISSIPPI DURING THE 1984-85 HUNTING SEASON AND ALL TURKEY HUNTING (COMBINING SPRING AND FALL DATA) DURING THE 1984 CALENDAR YEAR IN MISSISSIPPI.

SPECIES	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE		TOTAL HUNTERS	PERCENT TOTAL LICENSEES(A)
							SEASONAL DAYS HUNTING	HUNTING		
DEER	ESTIMATE (SE) N	226,743 (7,933) 2,083	0.075 (0.002) 1,630	1.20 (0.04) 1,737	51.7 (1.2) 1,738	2,878,029 (66,781) 1,982	15.44 (0.32) 1,636		188,428 (1,834) 2,092	83.5 (0.8) 2,092
BUCK	ESTIMATE (SE) N	182,414 (6,551) 2,083	0.060 (0.002) 1,630	0.97 (0.03) 1,737	48.0 (1.2) 1,738					
DOE	ESTIMATE (SE) N	44,634 (2,839) 2,084	0.015 (0.001) 1,631	0.24 (0.01) 1,738	16.6 (0.9) 1,738					
TURKEY	ESTIMATE (SE) N	50,129 (3,565) .	0.119 (0.006) 422	0.95 (0.05) 435	52.4 (2.4) 435	408,227 (25,536) .	7.92 (0.36) 424		52,824 (2,216) 1,905	23.0 (1.0) 1,905

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

1984-85 MISSISSIPPI HUNTER QUESTIONNAIRE

[illegible]

B. Please answer the following questions.

1. The 1984-85 fall and winter hunting seasons have just been completed. Did you purchase a license to hunt deer and turkey during the previous **1983-84** hunting seasons (**not** the one just completed)?
- ☐ 1 Yes
- ☐ 2 No
2. If you hunted **deer** during the **regular gun season**, please answer the following questions:
- a. Did you **usually** deer hunt in the same county where you live? (check one)
- ☐ 1 Yes
- ☐ 2 No
- b. How many miles is it **one-way** from your home to the place you **usually** deer hunted? (check one)
- ☐ 1 0-50 miles
- ☐ 2 51-100 miles
- ☐ 3 101-150 miles
- ☐ 4 151 or more miles
- c. How many antlerless (doe) deer days would you like to have in the county where you **usually** hunt?
- day(s)
- d. How many antlerless (doe) deer days would you like to have in the county where you **live**?
- day(s)
- e. How many bobcats did you **see** while **deer hunting** during the regular gun season?
- bobcat(s)
3. Do you belong to a deer hunting club? (check one)
- ☐ 1 Yes
- ☐ 2 No

4. If you killed a bobcat, how many did you kill while:
a. deer hunting during regular gun season?

☐ bobcat(s)

b. hunting for other game?

☐ bobcat(s)

c. hunting specifically for bobcat?

☐ bobcat(s)

5. If you bowhunt for deer, which 42 day either-sex archery season would you prefer to have? (check one)

Oct. 5 - Nov. 15

or

22 Oct. 19- Nov. 15 and Jan. 18 - Jan. 31

6. How many statewide antlerless (doe) deer days would you like to have during the regular gun deer season? (check one)

☐ none

2 1 day

☐ 3 2 days

☐ 4 3 days
☐ 1 day☐ 5 4 days
☐ 6 5 or more☐ 6 5 or more days

7. For each of the following violations, would you contact a Conservation Officer if you saw somebody breaking the game law? (check one box for each violation)

a. deer hunting without hunter orange

Yes No Maybe

 $\square_1 \quad \square_2 \quad \square_3$

b. hunting without a license

☐ 1 ☐ 2 ☐ 3

c. trespassing

$\square_1$ $\square_2$ $\square_3$

d. headlighting for deer

☐ 1 ☐ 2 ☐ 3

e. exceeding the squirrel ba

☐ 1 ☐ 2 ☐ 3

f. hunting from a public road

$\square_1$ $\square_2$ $\square_3$

g. hunting out of season

☐ 1 ☐ 2 ☐ 3

8. Your age: _____ yrs.

Fig. 1 Questionnaire used for the 1984-85 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

Lon Strong, Executive Director

Dear Sportsman:

We need your help! The Department of Wildlife Conservation is surveying Mississippi hunters to obtain information concerning the 1984-85 hunting season and last spring's (1984) 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,

Lon Strong
Executive Director

LS:be

Enclosure

Fig. 2 Cover letter mailed with the initial mailing of the 1984-85 survey of game harvest and hunter effort in Mississippi

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 cursive script, appearing to read "Lon Strong", followed by a horizontal line extending to the right.

Lon Strong
Executive Director

**MISSISSIPPI DEPARTMENT
OF WILDLIFE CONSERVATION
P.O. Box 451/Jackson, MS 39205**

Fig. 3 Post card used as the first reminder mailing to nonrespondents during the 1984-85 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

Lon Strong, Executive Director

Dear Sportsman:

The Department of Wildlife Conservation is striving to provide quality hunting for Mississippi sportsmen. While not wanting to impose, we are depending on you to help us evaluate hunting activity and success for the 1984-85 hunting season and last spring's (1984) 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,

Lon Strong
Executive Director

LS:be

Enclosure

Fig. 4 Cover letter mailed with the second (and final) reminder mailing to non-respondents during the 1984-85 survey of game harvest and hunter effort in Mississippi.