

**MISSISSIPPI MAIL SURVEY OF GAME
HARVEST AND HUNTER EFFORT FOR 1983-84**

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 1983-84 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 3,448 sportsmen to be mailed a survey questionnaire was selected from the 1983-84 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 1983-84 fiscal year.

Steffen (1981:14) recommended a sample size of 3,000-4,000 hunters. Therefore a 1.6 percent sample of hunting sales stubs (Types 01, 02 and 05) was drawn from every box of license sales processed by the end of January, 1984. Discontinuing sampling at the end of January expedited the survey mailing as soon as possible after the close of the hunting season in February.

The total number of hunting stubs sampled each month was calculated according to Steffen (1981:45). Sampling procedures were described by Steffen (1982:8). Names and addresses were directly keypunched for each stub sampled.

All Sportsman's license (Type 00) information was maintained in a computer file. To provide a sample comparable to the other license types, only those individuals who made an initial purchase of a Sportsman's license or who renewed their old license between July 1, 1983 and the end of January, 1984 were sampled. A 1.6 percent computer generated random sample was made of these hunters. 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, 1984 to the sampled hunters. About three weeks after the initial mailing (April 12, 1984), reminder post cards (Figure 3) were mailed to 2,280 sampled hunters who had not returned their questionnaires by April 12, 1984. 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 3, 1984) to the 2,004 nonrespondents as of April 30, 1984. First mailing questionnaires were given identification numbers from 100,001 to 103,448 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 May 31, 1984) 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 1983-84 survey, like the previous surveys, obtained information about two different hunting seasons or license years (i.e. spring 1983 turkey hunters hunted during the 1982-83 license year while hunters of the other surveyed species hunted during the 1983-84 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, 1983 a, b). Therefore spring 1983 turkey hunting indices were calculated based on the total number of resident hunters during 1982-83 and on the respondents who also purchased a big game license during the previous July 1, 1982 - June 30, 1983 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 1983 estimates plus the fall 1983 estimates. The computer programs were altered to reflect these changes. All other calculations follow Steffen (1981).

RESULTS

Based on all three mailings, 243 (7.0%) of the 3,448 questionnaires were returned as non-deliverable by the post office. Therefore 3,205 individuals were assumed to have been contacted to participate in the survey. Of these, 1,800 (56.2%) returned their questionnaires for possible analysis and 1,405 (43.8%) were nonresponses. Based on those questionnaires returned, 1,748 were answered and usable to some extent, 41 were

returned after the acceptance deadline (4 weeks after the final mailing) and only 11 were considered completely useless.

Statewide expansions were calculated based on the 258,949 total hunting licenses sold and accounted for by the end of June, 1984. The total sales for each resident hunting license type were as follows: Type 00 = 20,007, Type 01 = 205,170, Type 02 - 18,530 and Type 05 - 15,242. Therefore there existed 258,949 individuals licensed to hunt small game and 225,177 (Types 00 + 01) of these license holders also were eligible to pursue big game (deer and turkey).

Based on the 1,748 usable responses, 93.4 ± 0.6 (SE) percent of all resident license holders actually participated in a hunting activity during the 1983-84 hunting season. Therefore an estimated $244,966 \pm 1,528$ (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 (spring and fall) 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 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 continue to result in adequate precision with the reduced sample sizes for the 1983-84 survey. As expected, the estimates for the species of lesser hunting importance were quite poor (particularly the regional estimates).

As previously recommended by Steffen (1981, 1983a), the next large scale survey of 11,000 - 12,000 hunters should occur during the next survey period (1984-85 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 1983-84 Mississippi mail survey of game harvest based on 258,949 small game license holders and 225,177 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	3,599,242	5.89	28.72	93.0	612,075	4.90	125,919	48.6
Quail	1,260,278	3.02	24.59	87.0	406,151	8.15	51,849	20.0
Woodcock	37,056	0.98	3.73	86.6	30,315	3.76	10,074	3.9
Rabbit	1,212,995	1.55	11.79	92.2	745,468	7.51	103,698	40.0
Squirrel	2,467,325	2.25	15.62	94.0	1,074,860	6.91	158,658	61.3
Raccoon	181,724	0.64	7.25	91.1	229,677	10.41	25,184	9.7
All Ducks	861,532	2.08	17.71	87.5	405,702	8.66	48,886	18.9
Mallard	457,239	1.11	9.40	69.2				
Wood Duck	183,608	0.44	3.77	59.5				
Other	220,685	0.53	4.54	39.0				
Geese	2,520	0.31	0.74	56.5	8,004	2.35	3,555	1.4
Red Fox	5,037	0.07	1.21	67.9	57,940	16.96	4,148	1.6
Gray Fox	4,743	0.07	1.68	55.0	61,217	21.74	2,963	1.1
Bobcat	6,222	0.33	1.28	84.4	12,217	3.73	4,740	1.8
Coyote	17,481	0.13	1.34	73.9	77,429	8.71	13,036	5.0
All Deer	196,375	0.072	1.08	49.4	2,595,786	14.51	181,580	80.6
Buck	151,093	0.054	0.83	44.2				
Doe	45,220	0.017	0.25	16.5				
Archery Deer	19,747	0.058	0.51	32.9	309,695	8.23	39,161	17.4
Buck	10,562	0.030	0.27	22.0				
Doe	9,185	0.028	0.24	18.8				
Primitive Deer	19,454	0.097	0.48	36.5	187,905	4.90	40,385	17.9
Buck	7,200	0.037	0.18	15.6				
Doe	12,255	0.060	0.30	23.6				
Gun Deer	156,946	0.071	0.89	47.1	2,081,392	11.98	176,531	78.4
Buck	133,227	0.060	0.76	43.2				
Doe	23,687	0.011	0.13	10.2				
Turkey	48,500	0.111	1.00	53.1	415,373	8.71	51,241	19.0
Spring '83	46,664	0.109	0.99	52.5	405,277	8.76	47,876	20.8
Fall '83	1,836	0.182	0.55	40.9	10,096	3.00	3,365	1.5

^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 1983-84 hunting season.

Species	Total Harvest	Standard Error		95% Confidence Interval	
		S E	As % of Total ^a	Lower Limit	Upper Limit
Dove	3,599,242	175,680	4.9	3,247,882	3,950,602
Quail	1,260,278	144,654	11.5	970,970	1,549,586
Woodcock	37,056	7,249	19.6	22,558	51,554
Rabbit	1,212,995	80,138	6.6	1,052,719	1,373,271
Squirrel	2,467,325	104,463	4.2	2,258,399	2,676,251
Raccoon	181,724	25,037	13.8	131,650	231,798
All Ducks	861,532	86,068	10.0	689,396	1,033,668
Mallard	457,239	49,254	10.8	358,731	555,747
Wood Duck	183,608	18,308	10.0	146,992	220,224
Other	220,685	36,118	16.4	148,449	292,921
Geese	2,520	768	30.5	984	4,056
Red Fox	5,037	1,401	27.8	2,235	7,839
Gray Fox	4,743	1,800	38.0	1,143	8,343
Bobcat	6,222	1,696	27.3	2,830	9,614
Coyote	17,481	2,558	14.6	12,365	22,597
All Deer	196,375	8,452	4.3	179,471	213,279
Buck	151,093	6,742	4.5	137,609	164,577
Doe	45,220	3,598	8.0	38,024	52,416
Archery Deer	19,747	2,515	12.7	14,717	24,777
Buck	10,562	1,529	14.5	7,504	13,620
Doe	9,185	1,433	15.6	6,319	12,051
Primitive Deer	19,454	2,210	11.4	15,034	23,874
Buck	7,200	1,182	16.4	4,836	9,564
Doe	12,255	1,662	13.6	8,931	15,579
Gun Deer	156,946	6,840	4.4	143,266	170,626
Buck	133,227	6,017	4.5	121,193	145,261
Doe	23,687	2,499	10.6	18,689	28,685
Turkey	48,500	4,315	8.9	39,870	57,130
Spring '83	46,664	4,266	9.1	38,132	55,196
Fall '83	1,836	647	35.2	542	3,130

^a % = 100 (SE/Total Harvest)

TABLE 3. Expanded statewide and regional summaries of DOVE hunting in Mississippi during the 1983-84 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 Hunters Per Region	Total Hunters Per Region
1	Estimate	1,024,649	6.01	33.34	95.1	171,729	5.56	30,756	24.8	(1.5)
	(SE)	(111,485)	(0.40)	(2.90)	(1.5)	(19,115)	(0.50)	(2,017)		
2	N	1719	204	204	205	1719	205	828		828
	Estimate	1,285,255	6.00	26.50	94.7	214,209	4.43	48,609	39.1	(1.7)
3	(SE)	(101,215)	(0.41)	(1.61)	(1.2)	(18,616)	(0.31)	(2,435)		
	N	1719	320	322	323	1719	321	828		828
4	Estimate	249,308	5.61	25.86	90.6	44,439	4.61	9,602	7.7	(0.9)
	(SE)	(45,156)	(0.59)	(3.47)	(3.7)	(7,246)	(0.50)	(1,178)		
5	N	1719	64	64	64	1719	64	828		828
	Estimate	755,456	6.54	32.56	94.2	120,210	5.18	23,404	18.8	
Statewide	(SE)	(98,375)	(0.35)	(3.43)	(1.9)	(14,159)	(0.46)	(1,788)		
	N	1719	152	154	154	1719	154	828		828
										Percent of Total Licensees
										48.6
										(1.2)
										(1.0)
										1748

TABLE 4. Expanded statewide and regional summaries of QUAIL hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Seasonal Days Hunting	Total Hunters	Average Seasonal Days Hunting	Total Hunters	Percent Hunters Per Region
1	Estimate (SE)	110,379 (26,172)	2.60 (0.40)	17.38 (3.27)	97.6 (2.4)	42,732 (10,541)	6.93 (1.35)	6,126 (946)	12.2 (1.8)		
	N	1729	41	41	41	1721	41	335	335		
2	Estimate (SE)	681,595 (108,052)	3.09 (0.30)	27.58 (3.88)	86.7 (2.6)	212,756 (32,437)	8.78 (1.17)	25,103 (1,841)	50.1 (2.7)		
	N	1729	159	165	166	1721	161	335	335		
3	Estimate (SE)	27,258 (12,409)	1.97 (0.81)	12.13 (4.72)	80.0 (10.7)	11,887 (6,427)	5.64 (2.75)	2,241 (576)	4.5 (1.1)		
	N	1729	14	15	15	1721	14	335	335		
4	Estimate (SE)	224,802 (50,080)	2.88 (0.33)	22.40 (4.24)	85.1 (4.4)	77,188 (14,085)	7.77 (1.07)	10,011 (1,200)	20.0 (2.2)		
	N	1729	66	67	67	1721	66	335	335		
5	Estimate (SE)	176,127 (77,468)	3.94 (1.08)	27.35 (11.43)	83.7 (5.7)	44,688 (11,993)	7.24 (1.61)	6,575 (979)	13.1 (1.8)		
	N	1729	41	43	43	1721	41	335	335		
											Percent of Total Licensees
Statewide	Estimate (SE)	1,260,278 (144,654)	3.02 (0.22)	24.59 (2.56)	87.0 (1.8)	406,151 (40,052)	8.15 (0.70)	51,849 (2,479)	20.0 (1.0)		
	N	1743	331	345	346	1731	333	1748	1748		

TABLE 5. Expanded statewide and regional summaries of WOODCOCK hunting Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Seasonal Days	Total Hunters	Percent Hunters Per Region
1	Estimate	2,820	0.63	2.38	75.0	4,483	3.75	1,186	12.1
	(SE)	(1,618)	(0.41)	(1.15)	(16.4)	(2,100)	(1.24)	(419)	(4.0)
2	N	1745	8	8	8	1733	8	66	66
	Estimate	8,162	0.52	2.29	79.2	10,310	3.63	3,559	36.4
3	(SE)	(2,669)	(0.22)	(0.60)	(8.5)	(4,249)	(1.28)	(722)	(6.0)
	N	1745	19	24	24	1733	19	66	66
4	Estimate	8,310	2.55	7.00	100.0	3,287	2.75	1,186	12.1
	(SE)	(4,419)	(1.09)	(2.98)	(0.0)	(1,447)	(0.77)	(419)	(4.0)
5	N	1745	8	8	8	1733	8	66	66
	Estimate	8,310	0.86	5.09	90.9	7,621	7.29	1,631	16.7
	(SE)	(3,405)	(0.42)	(1.49)	(9.1)	(4,721)	(3.87)	(490)	(4.6)
	N	1745	7	11	11	1733	7	66	66
	Estimate	8,904	1.33	4.29	92.9	4,483	2.73	2,225	22.7
	(SE)	(3,494)	(0.48)	(1.28)	(7.1)	(1,934)	(0.89)	(577)	(5.2)
	N	1745	11	14	14	1733	11	66	66
									Percent of Total Licensees
Statewide	Estimate	37,056	0.98	3.73	86.6	30,315	3.76	10,074	3.9
	(SE)	(7,249)	(0.23)	(0.58)	(4.2)	(7,081)	(0.73)	(1,193)	(0.5)
	N	1747	54	67	67	1734	54	1748	1748

TABLE 6. Expanded statewide and regional summaries of RABBIT hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Seasonal Days Hunting	Total Hunters	Average Seasonal Days Hunting	Percent Hunters Per Region
1	Estimate	308,440 (47,480)	1.95 (0.26)	14.59 (1.91)	91.3 (2.4)	158,971 (27,238)	7.59 (1.14)	21,223 (1,725)	21.5 (1.6)	
	(SE)	N 1690	135	138	138	1668	135	648	648	
2	Estimate	352,416 (36,467)	1.51 (0.09)	10.09 (0.84)	90.4 (1.9)	219,051 (21,725)	6.38 (0.49)	35,270 (2,157)	35.6 (1.9)	
	(SE)	N 1690	220	228	230	1668	221	648	648	
3	Estimate	83,048 (21,148)	1.29 (0.33)	11.06 (2.37)	93.9 (3.5)	54,957 (15,339)	7.87 (1.89)	7,481 (1,054)	7.6 (1.0)	
	(SE)	N 1690	45	49	49	1668	45	648	648	
4	Estimate	275,957 (44,343)	1.50 (0.22)	12.51 (1.75)	95.8 (1.7)	179,929 (29,643)	8.52 (1.22)	21,986 (1,753)	22.2 (1.6)	
	(SE)	N 1690	136	144	144	1668	136	648	648	
5	Estimate	118,289 (26,157)	1.20 (0.23)	9.30 (1.84)	90.4 (3.3)	101,220 (20,457)	7.86 (1.35)	12,978 (1,372)	13.1 (1.3)	
	(SE)	N 1690	81	83	83	1668	83	648	648	
										Percent of Total Licensees
Statewide	Estimate	1,212,995 (80,138)	1.55 (0.09)	11.79 (0.70)	92.2 (1.0)	745,468 (50,505)	7.51 (0.45)	103,698 (3,036)	40.0 (1.2)	
	(SE)	N 1739	648	691	693	1700	652	1748	1748	

TABLE 7. Expanded statewide and regional summaries of SQUIRREL hunting in Mississippi during the 1983-84 hunting seasons.

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	391,514	2.30	13.55	96.3 (1.4)	170,703 (22,079)	5.90 (0.65)	29,045 (1,991)	18.8 (1.2)
	(SE)	(40,458)	(0.24)	(1.05)					
	N	1676	185	187		1655	185	1008	1008
2	Estimate	754,753	2.13	14.16	92.2 (1.4)	351,263 (27,872)	6.70 (0.42)	53,327 (2,552)	34.4 (1.5)
	(SE)	(60,085)	(0.11)	(0.90)					
	N	1676	334	345		1655	335	1008	1008
3	Estimate	405,264	2.46	19.43	96.3 (1.6)	147,703 (22,064)	7.21 (0.89)	20,747 (1,713)	13.4 (1.1)
	(SE)	(52,805)	(0.31)	(1.97)					
	N	1676	131	135		1655	131	1008	1008
4	Estimate	616,781	2.42	18.92	93.4 (1.7)	250,969 (31,111)	7.71 (0.82)	32,734 (2,097)	21.1 (1.3)
	(SE)	(66,842)	(0.22)	(1.65)					
	N	1676	206	211		1655	208	1008	1008
5	Estimate	279,189	2.15	14.93	91.8 (2.5)	131,274 (18,280)	7.05 (0.76)	19,056 (1,648)	12.3 (1.0)
	(SE)	(42,306)	(0.27)	(1.85)					
	N	1676	117	121		1655	119	1008	1008
<u>Percent of Total Licensees</u>									
Statewide	Estimate	2,467,325	2.25	15.62	94.0	1,074,860	6.91	158,658	61.3
	(SE)	(104,463)	(0.09)	(0.59)	(0.7)	(49,924)	(0.29)	(3,018)	(1.2)
	N	1736	1015	1059	1061	1697	1020	1748	1748

TABLE 8. Expanded statewide and regional summaries of RACCOON hunting in Mississippi during the 1983-84 hunting season.

<u>Region</u>	<u>Statistic</u>	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Handays	Average Days Hunting	Total Hunters	Average Seasonal Days Hunting	Percent Hunters Per Region
1	Estimate	41,814	0.80	8.24	91.2	52,422	10.24	5,075	21.7	
	(SE)	(13,567)	(0.20)	(2.31)	(4.9)	(16,658)	(2.79)	(862)	(3.3)	
	N	1734	34	34	34	1719	34	157	157	
2	Estimate	55,702	0.52	7.46	90.0	89,781	14.19	7,463	31.8	
	(SE)	(11,767)	(0.06)	(1.20)	(4.3)	(21,049)	(2.56)	(1,040)	(3.7)	
	B	1734	42	50	50	1719	42	157	157	
3	Estimate	18,518	0.92	6.53	94.7	15,215	6.31	2,836	12.1	
	(SE)	(6,354)	(0.29)	(1.72)	(5.3)	(5,608)	(1.77)	(647)	(2.6)	
	N	1734	16	19	19	1719	16	157	157	
4	Estimate	40,022	0.69	6.87	94.9	48,807	8.76	5,970	25.5	
	(SE)	(13,068)	(0.08)	(1.99)	(3.6)	(15,724)	(2.47)	(933)	(3.5)	
	N	1734	36	39	39	1719	37	157	157	
5	Estimate	5,376	0.36	2.57	71.4	12,202	6.75	2,090	8.9	
	(SE)	(2,181)	(0.13)	(0.82)	(12.5)	(5,506)	(2.45)	(556)	(2.3)	
	N	1734	12	14	14	1719	12	157	157	
										Percent of Total Licenses
Statewide	Estimate	181,724	0.64	7.25	91.1	229,677	10.41	25,184	9.7	
	(SE)	(25,037)	(0.06)	(0.85)	(2.2)	(32,060)	(1.20)	(1,836)	(0.7)	
	N	1747	146	169	169	1725	147	1748	1748	

TABLE 9. Expanded statewide and regional summaries of ALL DUCK hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Seasonal Days Hunting	Total Hunters	Average Days Hunting	Percent Hunters Per Region
1	Estimate	507,108 (SE) (76,937)	2.65 (0.22)	25.85 (3.27)	90.1 (2.6)	193,760 (23,073)	9.82 (0.83)	19,758 (1,653)	42.3 (2.8)	
	(SE)	1728	130	131	131	1720	131	312	312	
	N									
2	Estimate	132,771 (SE) (26,597)	1.57 (0.19)	11.08 (1.87)	80.0 (4.5)	84,761 (13,328)	7.22 (0.81)	12,124 (1,316)	26.0 (2.5)	
	(SE)	1728	78	80	80	1720	78	312	312	
	N									
3	Estimate	68,334 (SE) (19,561)	2.30 (0.26)	16.89 (3.67)	88.9 (6.2)	29,207 (7,402)	7.76 (1.25)	4,041 (772)	8.7 (1.6)	
	(SE)	1728	25	27	27	1720	25	312	312	
	N									
4	Estimate	54,098 (SE) (13,603)	1.14 (0.14)	9.50 (1.86)	86.8 (5.6)	44,714 (9,854)	8.03 (1.21)	5,688 (913)	12.2 (1.9)	
	(SE)	1728	37	38	38	1720	37	312	312	
	N									
5	Estimate	63,389 (SE) (17,470)	1.42 (0.25)	12.44 (2.74)	94.1 (4.1)	38,090 (9,553)	8.16 (1.47)	5,089 (864)	10.9 (1.8)	
	(SE)	1728	31	34	34	1720	31	312	312	
	N									
<u>Percent of Total Licensees</u>										
Statewide	Estimate	861,532 (SE) (86,068)	2.08 (0.13)	17.71 (1.54)	87.5 (1.8)	405,702 (30,483)	8.66 (0.48)	48,886 (2,424)	18.9 (0.9)	
	N	1746	312	328	328	1731	313	1748	1748	

TABLE 10. Expanded statewide and regional summaries of MALLARD, WOOD DUCK, and OTHER DUCK hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	MALLARDS				WOOD DUCKS				OTHER DUCKS			
		Total Harvest	Average Daily Kill	Seasonal Harvest	Percent Successful Hunters	Total Harvest	Average Daily Kill	Seasonal Harvest	Percent Successful Hunters	Total Harvest	Average Daily Kill	Seasonal Harvest	Percent Successful Hunters
1	Estimate	308,251	1.61	15.70	85.5	55,446	0.29	2.82	55.7	143,711	0.75	7.32	51.9
	(SE)	(44,374)	(0.12)	(1.84)	(3.1)	(10,494)	(0.04)	(0.48)	(4.4)	(33,784)	(0.15)	(1.61)	(4.4)
	N	1728	130	131	131	1728	130	131	131	1728	130	131	131
2	Estimate	62,639	0.74	5.23	63.8	40,461	0.48	3.38	52.5	29,671	0.35	2.48	57.5
	(SE)	(15,290)	(0.14)	(1.15)	(5.4)	(8,426)	(0.08)	(0.60)	(5.6)	(8,809)	(0.08)	(0.69)	(5.0)
	N	1728	78	80	80	1728	78	80	80	1728	78	80	80
3	Estimate	33,118	1.12	8.19	77.8	19,631	0.64	4.85	66.7	15,585	0.54	3.85	37.0
	(SE)	(10,317)	(0.19)	(2.05)	(8.2)	(5,846)	(0.11)	(1.13)	(9.2)	(6,646)	(0.17)	(1.50)	(9.5)
	N	1728	25	27	27	1728	25	27	27	1728	25	27	27
4	Estimate	10,640	0.24	1.87	34.2	34,616	0.76	6.08	76.3	8,841	0.15	1.55	23.7
	(SE)	(3,949)	(0.06)	(0.63)	(7.8)	(8,519)	(0.09)	(1.15)	(7.0)	(3,894)	(0.06)	(0.65)	(7.0)
	N	1728	37	38	38	1728	37	38	38	1728	37	38	38
5	Estimate	16,184	0.40	3.18	52.9	25,176	0.58	4.94	67.6	22,029	0.44	4.32	44.1
	(SE)	(5,547)	(0.11)	(0.96)	(8.7)	(7,110)	(0.11)	(1.13)	(8.1)	(8,084)	(0.14)	(1.43)	(8.6)
	N	1728	31	34	34	1728	31	34	34	1728	31	34	34
Statewide	Estimate	457,239	1.11	9.40	69.2	183,608	0.44	3.77	59.5	220,685	0.53	4.54	39.0
	(SE)	(49,254)	(0.08)	(0.90)	(2.6)	(18,308)	(0.03)	(0.33)	(2.7)	(36,118)	(0.08)	(0.71)	(2.7)
	N	1746	312	328	328	1746	312	328	328	1746	312	328	328

TABLE 11. Expanded statewide and regional summaries of GOOSE hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Seasonal Days Hunting	Total Hunters	Average Days Hunting	Percent Hunters Per Region	
										Percent Hunters Per Region	Percent Hunters Per Region
1	Estimate	742	0.24	0.45	36.4	3,411	1.92	1,779	52.2	(10.6)	(10.6)
	(SE)	(392)	(0.11)	(0.21)	(15.2)	(1,077)	(0.26)	(512)			
2	N	1746	11	11	11	1746	12	23		23	23
	Estimate	1,335	0.32	1.13	75.0	4,153	3.50	1,186	34.8		
3	(SE)	(611)	(0.13)	(0.35)	(16.4)	(1,943)	(1.15)	(418)	(10.2)	23	23
	N	1746	8	8	8	1746	8	23			
4	Estimate	-	-	-	-	-	-	-	-	23	23
	(SE)	-	-	-	-	-	-	-	-		
5	N	1746	-	-	-	1746	-	-	-	23	23
	Estimate	-	-	-	-	-	-	-	-		
Statewide	Estimate	297	0.50	0.67	66.7	297	1.00	445	13.0	(7.2)	(7.2)
	(SE)	(210)	(0.05)	(0.33)	(33.3)	(210)	(0.00)	(257)			
Statewide	N	1746	2	3	3	1746	2	23		23	23
	Percent of Total Licensees										
Statewide	Estimate	2,520	0.31	0.74	56.5	8,004	2.35	3,555	1.4	(0.3)	(0.3)
	(SE)	(768)	(0.08)	(0.17)	(10.6)	(2,231)	(0.45)	(721)			
Statewide	N	1747	22	23	23	1747	23	1748	1748		

TABLE 12. Expanded statewide and regional summaries of RED FOX hunting in Mississippi during the 1983-84 hunting season

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Days Hunting	Total Hunters	Average Seasonal		Percent Hunters Per Region
									Total	Hunters	
1	Estimate	1,188	0.10	1.00	62.5	10,715	10.29	1,188	33.3	33.3	
	(SE)	(593)	(0.05)	(0.38)	(18.3)	(5,836)	(4.36)	(419)	(9.8)	(9.8)	
2	N	1744	7	8	8	1740	7	24	24	24	
	Estimate	1,782	0.09	1.50	75.0	18,305	17.57	1,188	33.3	33.3	
3	(SE)	(890)	(0.07)	(0.57)	(16.4)	(11,808)	(9.93)	(419)	(9.8)	(9.8)	
	N	1744	7	8	8	1740	7	24	24	24	
4	Estimate	594	1.00	1.33	100.0	446	1.50	445	12.5	12.5	
	(SE)	(364)	(0.00)	(0.33)	(0.0)	(333)	(0.50)	(257)	(6.9)	(6.9)	
5	N	1744	2	3	3	1740	2	24	24	24	
	Estimate	891	0.03	1.50	50.0	27,532	46.25	594	16.7	16.7	
	(SE)	(757)	(0.03)	(1.19)	(28.9)	(18,710)	(24.60)	(297)	(7.8)	(7.8)	
	N	1744	4	4	4	1740	4	24	24	24	
	Estimate	297	-	2.00	100.0	0	-	148	4.2	4.2	
	(SE)	(297)	-	-	-	0	-	(148)	(4.2)	(4.2)	
	N	1744	-	1.00	1.0	1/40	-	24	24	24	
										Percent of Total Licensees	
Statewide	Estimate	5,037	0.07	1.21	67.9	57,940	16.96	4,148	1.6	1.6	
	(SE)	(1,401)	(0.03)	(0.25)	(9.0)	(22,831)	(5.81)	(778)	(0.3)	(0.3)	
	N	1748	23	28	28	1743	23	1748	1748	1748	

TABLE 13. Expanded statewide and regional summaries of GRAY FOX hunting in Mississippi during the 1983-84 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 Hunters Per Region	
1	Estimate (SE)	297 (297)	0.04 (0.04)	0.67 (0.67)	33.3 (33.3)	7,717 (5,357)	17.33 (8.19)	445 (257)	16.7 (9.0)		
	N	1745	3	3	3	1745	3	18	18		
2	Estimate (SE)	1,781 (984)	0.09 (0.07)	2.00 (0.82)	71.4 (18.4)	21,666 (12,074)	20.86 (9.24)	1,038 (392)	38.9 (11.8)		
	N	1745	6	6	7	1745	7	18	18		
3	Estimate (SE)	445 (445)	-	3.00	100.0	0	-	148	5.6		
	N	1745	-	1	1	1745	-	18	18		
4	Estimate (SE)	2,078 (1,407)	0.07 (0.05)	2.33 (1.38)	50.0 (22.4)	30,569 (18,889)	34.33 (17.46)	890 (363)	33.3 (11.4)		
	N	1745	6	6	6	1745	6	18	18		
5	Estimate (SE)	148 (148)	1.00	1.00	100.0	148	1.00	148	5.6		
	N	1745	1	1	1	1745	1	18	18		
										Percent of Total Licensees	
Statewide	Estimate (SE)	4,743 (1,800)	0.07 (0.03)	1.68 (0.52)	55.0 (11.4)	61,217 (23,019)	21.74 (6.67)	2,963 (659)	1.1 (0.3)		
	N	1747	18	19	20	1747	19	1748	1748		

TABLE 14. Expanded statewide and regional summaries of BOBCAT hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Days Hunting	Total Hunters	Average Seasonal Days Hunting	Percent Hunters Per Region
1	Estimate	2,373	0.38	1.78	88.9	5,516	5.29	1,335	30.0	
	(SE)	(1,391)	(0.10)	(0.91)	(11.1)	(3,368)	(2.74)	(444)	(8.5)	
	N	1746	7	9	9	1737	7	30	30	
2	Estimate	1,038	0.27	1.00	85.7	2,236	3.75	1,038	23.3	
	(SE)	(444)	(0.09)	(0.22)	(14.3)	(1,390)	(1.60)	(392)	(7.9)	
	N	1746	4	7	7	1737	4	30	30	
3	Estimate	1,631	0.45	1.57	100.0	1,640	2.75	1,038	23.3	
	(SE)	(741)	(0.20)	(0.43)	(0.0)	(1,220)	(1.75)	(392)	(7.9)	
	N	1746	4	7	7	1737	4	30	30	
4	Estimate	742	0.25	0.71	71.4	2,385	2.67	1,038	23.3	
	(SE)	(331)	(0.20)	(0.18)	(18.4)	(1,549)	(1.48)	(392)	(7.9)	
	N	1746	6	7	7	1737	6	30	30	
5	Estimate	0	-	-	0	-	-	0	0.0	
	(SE)	(0)	-	-	(0)	-	-	(0)	(0.0)	
	N	1746	-	-	-	1737	-	30	30	
										Percent of Total Licensees
Statewide	Estimate	6,222	0.33	1.28	84.4	12,217	3.73	4,740	1.8	
	(SE)	(1,696)	(0.07)	(0.28)	(6.5)	(4,157)	(1.02)	(831)	(0.3)	
	N	1748	22	32	32	1738	22	1748	1748	

TABLE 15. Expanded statewide and regional summaries of COYOTE hunting in Mississippi during the 1983-84 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	4,011	0.16	1.35	80.0	17,052	7.06	2,971	24.1
	(SE)	(1,157)	(0.06)	(0.25)	(9.2)	(6,800)	(2.27)	(661)	(4.7)
	N	1743	16	20	20	1716	16	83	83
2	Estimate	7,131	0.14	1.41	73.5	29,275	8.43	5,051	41.0
	(SE)	(1,775)	(0.06)	(0.26)	(7.7)	(10,870)	(2.66)	(828)	(5.4)
	N	1743	23	34	34	1716	23	83	83
3	Estimate	2,228	0.17	1.15	69.2	6,338	5.25	1,931	15.7
	(SE)	(826)	(0.10)	(0.30)	(13.3)	(3,082)	(1.88)	(534)	(4.0)
	N	1743	8	13	13	1716	8	83	83
4	Estimate	2,823	0.07	1.36	78.6	22,183	18.38	2,080	16.9
	(SE)	(926)	(0.06)	(0.27)	(11.4)	(16,190)	(12.55)	(554)	(4.1)
	N	1743	8	14	14	1716	8	83	83
5	Estimate	149	0.00	0.50	50.0	151	1.00	297	2.4
	(SE)	(149)	-	(0.50)	(50.0)	(151)	-	(210)	(1.7)
	N	1743	1	2	2	1716	1	83	83
<u>Percent of Total Licensees</u>									
Statewide	Estimate	17,181	0.13	1.34	73.9	77,429	8.71	13,036	5.0
	(SE)	(2,538)	(0.04)	(0.14)	(4.7)	(20,873)	(2.08)	(1,355)	(0.5)
	N	1748	59	88	88	1719	59	1748	1748

TABLE 16. Expanded statewide and regional summaries of ARCHERY DEER hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Mandays	Average Seasonal Days Hunting	Total Hunters	Average Days Hunting	Percent Hunters Per Region
1	Estimate	4,460	0.050	0.56	42.3	81,249	10.29	8,146	21.3	
	(SE)	(1,048)	(0.009)	(0.11)	(6.9)	(14,315)	(1.14)	(1,099)	(2.6)	
	N	1464	51	52	52	1455	51	249	249	
2	Estimate	2,615	0.030	0.21	17.5	76,761	6.44	12,296	32.1	
	(SE)	(735)	(0.009)	(0.06)	(4.3)	(10,483)	(0.52)	(1,337)	(3.0)	
	N	1464	77	80	80	1455	77	249	249	
3	Estimate	4,460	0.080	0.71	41.5	52,309	8.67	6,302	16.5	
	(SE)	(1,327)	(0.022)	(0.18)	(7.8)	(10,317)	(1.04)	(971)	(2.4)	
	N	1464	39	41	41	1455	39	249	249	
4	Estimate	6,306	0.083	0.73	39.3	74,749	8.78	8,607	22.5	
	(SE)	(1,627)	(0.014)	(0.16)	(6.6)	(12,961)	(0.99)	(1,128)	(2.7)	
	N	1464	55	56	56	1455	55	249	249	
5	Estimate	1,077	0.051	0.37	26.3	21,357	8.12	2,920	7.6	
	(SE)	(510)	(0.070)	(0.16)	(10.4)	(6,120)	(1.29)	(666)	(1.7)	
	N	1464	17	19	19	1455	17	249	249	
										Percent of Total Licensees ^a
Statewide	Estimate	19,747	0.058	0.51	32.9	309,695	8.23	39,161	17.4	
	(SE)	(2,515)	(0.006)	(0.06)	(2.9)	(24,038)	(0.42)	(2,225)	(1.0)	
	N	1471	244	255	255	1460	244	1472	1472	

^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 1983-84 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)	2,153 (719)	0.021 (0.006)	0.27 (0.08)	21.2 (5.7)	2,307 (593)	0.029 (0.006)	0.29 (0.06)	28.8 (6.3)
	N	1464	51	52	52	1464	51	52	52
2	Estimate (SE)	1,538 (485)	0.016 (0.005)	0.13 (0.04)	12.5 (3.7)	1,077 (461)	0.014 (0.006)	0.09 (0.04)	7.5 (3.0)
	N	1464	77	80	80	1464	77	80	80
3	Estimate (SE)	2,000 (669)	0.038 (0.012)	0.32 (0.10)	26.8 (7.0)	2,461 (840)	0.041 (0.013)	0.39 (0.12)	26.8 (7.0)
	N	1464	39	41	41	1464	39	41	41
4	Estimate (SE)	3,691 (992)	0.048 (0.009)	0.43 (0.10)	30.4 (6.2)	2,615 (826)	0.035 (0.009)	0.30 (0.09)	21.4 (5.5)
	N	1464	55	56	56	1464	55	56	56
5	Estimate (SE)	461 (266)	0.022 (0.011)	0.16 (0.09)	15.8 (8.6)	615 (377)	0.029 (0.016)	0.21 (0.12)	15.8 (8.6)
	N	1464	17	19	19	1464	17	19	19
Statewide	Estimate (SE)	10,562 (1,529)	0.030 (0.004)	0.27 (0.04)	22.0 (2.6)	9,185 (1,433)	0.028 (0.004)	0.24 (0.03)	18.8 (2.5)
	N	1471	244	255	255	1471	244	255	255

TABLE 18. Expanded statewide and regional summaries of PRIMITIVE WEAPON DEER hunting in Mississippi during the 1983-84 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Man-days	Average Seasonal Days Hunting	Total Hunters	Average Days Hunting	Percent Hunters Per Region
1	Estimate	8,174	0.152	0.83	53.1	52,132	5.32	10,011	25.6	
	(SE)	(1,655)	(0.023)	(0.13)	(6.3)	(7,350)	(0.37)	(1,214)	(2.7)	
	N	1460	63	64	64	1447	63	254	254	
2	Estimate	3,239	0.061	0.30	28.2	48,241	4.63	10,935	28.0	
	(SE)	(735)	(0.014)	(0.06)	(5.4)	(7,119)	(0.40)	(1,266)	(2.8)	
	N	1460	67	71	71	1447	67	254	254	
3	Estimate	3,085	0.093	0.43	40.4	31,746	4.64	7,239	18.5	
	(SE)	(719)	(0.019)	(0.08)	(7.2)	(5,413)	(0.39)	(1,039)	(2.4)	
	N	1460	44	47	47	1447	44	254	254	
4	Estimate	2,622	0.070	0.37	26.1	35,636	5.09	7,085	18.1	
	(SE)	(828)	(0.020)	(0.10)	(6.5)	(6,051)	(0.44)	(1,028)	(2.4)	
	N	1460	45	46	46	1447	45	254	254	
5	Estimate	1,851	0.101	0.48	32.0	15,406	4.95	3,850	9.8	
	(SE)	(722)	(0.037)	(0.16)	(9.5)	(3,864)	(0.59)	(764)	(1.9)	
	N	1460	20	25	25	1447	20	254	254	
										Percent of Total Licensees ^a
Statewide	Estimate	19,454	0.097	0.48	36.5	187,905	4.90	40,385	17.9	
	(SE)	(2,210)	(0.010)	(0.05)	(3.0)	(12,987)	(0.19)	(2,252)	(1.0)	
	N	1470	248	263	263	1456	248	1472	1472	

^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 1983-84 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 N	Estimate (SE)	25,830 (2,984)	0.070 (0.006)	0.83 (0.08)	47.7 (3.6)	6,171 (1,184)	0.017 (0.003)	0.20 (0.04)	16.2 (2.6)
		1421	191	196	197	1423	192	197	197
2 N	Estimate (SE)	43,736 (3,904)	0.057 (0.004)	0.68 (0.05)	39.5 (2.4)	6,171 (1,162)	0.009 (0.002)	0.10 (0.02)	7.8 (1.3)
		1421	388	407	408	1423	389	408	408
3 N	Estimate (SE)	26,147 (3,024)	0.072 (0.006)	0.95 (0.09)	51.7 (3.8)	4,273 (1,168)	0.012 (0.003)	0.16 (0.04)	11.5 (2.4)
		1421	165	174	174	1423	165	174	174
4 N	Estimate (SE)	28,048 (3,190)	0.058 (0.006)	0.78 (0.08)	44.2 (3.3)	4,431 (1,157)	0.010 (0.003)	0.12 (0.03)	9.3 (1.9)
		1421	212	226	226	1423	212	226	226
5 N	Estimate (SE)	8,399 (1,655)	0.038 (0.008)	0.52 (0.09)	33.7 (4.7)	1,741 (758)	0.010 (0.004)	0.11 (0.05)	7.9 (2.7)
		1421	91	101	101	1423	91	101	101
Statewide N	Estimate (SE)	133,227 (6,017)	0.060 (0.003)	0.76 (0.03)	43.2 (1.5)	23,687 (2,499)	0.011 (0.001)	0.13 (0.01)	10.2 (0.9)
		1462	1072	1145	1147	1464	1074	1147	1147

TABLE 22. Expanded statewide and regional summaries of SPRING TURKEY hunting in Mississippi during 1983 hunting season.

Region	Statistic	Total Harvest	Average Daily Kill	Average Seasonal Harvest	Percent Successful Hunters	Total Handdays	Average Days Hunting	Total Hunters	Average Seasonal Days Hunting	Total Hunters	Percent Hunters Per Region
1	Estimate	4,939	0.120	0.81	44.4	41,432	6.72	6,118	13.2		
	(SE)	(1,346)	(0.024)	(0.18)	(8.4)	(10,145)	(1.24)	(1,006)	(0.2)		
	N	1353	36	36	36	1346	36	273	273		
2	Estimate	10,390	0.118	0.98	49.2	85,261	8.30	10,707	23.1		
	(SE)	(2,288)	(0.018)	(0.18)	(6.3)	(15,124)	(1.04)	(1,318)	(0.3)		
	N	1353	60	62	63	1346	60	273	273		
3	Estimate	14,137	0.140	1.38	63.3	94,164	9.65	10,197	22.0		
	(SE)	(2,515)	(0.016)	(0.17)	(6.3)	(15,335)	(0.96)	(1,287)	(0.3)		
	N	1353	57	60	60	1346	57	273	273		
4	Estimate	13,626	0.091	0.95	54.1	143,472	10.22	14,445	31.1		
	(SE)	(2,281)	(0.011)	(0.12)	(5.4)	(20,185)	(0.94)	(1,517)	(0.3)		
	N	1353	81	84	85	1346	82	273	273		
5	Estimate	3,236	0.073	0.68	50.0	37,837	7.89	4,928	10.6		
	(SE)	(975)	(0.018)	(0.16)	(9.6)	(9,638)	(1.39)	(906)	(0.2)		
	N	1353	27	28	28	1346	28	273	273		
											Percent of Total Licensees ^a
Statewide	Estimate	46,664	0.109	0.99	52.5	405,277	8.76	47,876	20.8		
	(SE)	(4,266)	(0.007)	(0.07)	(3.0)	(31,105)	(0.48)	(2,530)	(1.1)		
	N	1363	270	280	282	1355	272	1367	1367		

^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 1983 hunting season.

Region ^a	Statistic	Total Harvest	Average Daily Kill	Percent Successful Hunters	Total Mandays	Average Seasonal Days Hunting	Total Hunters	Percent Hunters Per Region	
								Average Seasonal Days Hunting	Total Hunters
1	Estimate	1,683	0.200	44.4	8,414	3.06	2,754	81.8	
	(SE)	(629)	(0.058)	(12.1)	(2,285)	(0.43)	(645)	(8.4)	
	N	1472	18	18	1472	18	22	22	
2	Estimate	153	0.091	0.25	25.0	1,683	2.75	612	18.2
	(SE)	(153)	(0.115)	(0.25)	(1,048)	(1.18)	(306)	(8.4)	
	N	1472	4	4	1472	4	4	4	
Percent of Total Licensees ^b									
Statewide									
Estimate	1,836	0.182	0.55	40.9	10,096	3.00	3,375	1.5	
(SE)	(647)	(0.053)	(0.16)	(10.7)	(2,510)	(0.40)	(712)	(0.3)	
N	1472	22	22	22	1472	22	1472	1472	

a Fall turkey hunting was legal only in regions 1 and 2.

b Calculated as a percent of big game license holders only.

TABLE 24. Expanded statewide summaries of ALL DEER, BUCK and DOE hunting (combining all harvest methods) during the 1983-84 hunting season and ALL TURKEY hunting (combining spring and fall data) during the 1983 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
							Total	Hunting		
Deer	Estimate	196,375	0.072	1.08	49.5	2,595,786	14.51	181,580	80.6	
	(SE)	(8,452)	(0.003)	(0.04)	(1.5)	(71,774)	(0.35)	(2,320)	(1.0)	
	N	1462	1099	1178	1180	1387	1102	1472	1472	
Buck	Estimate	151,093	0.054	0.83	44.2					
	(SE)	(6,742)	(0.002)	(0.04)	(1.4)					
	N	1462	1099	1178	1180					
Doe	Estimate	45,220	0.017	0.25	16.5					
	(SE)	(3,598)	(0.001)	(0.02)	(1.1)					
	N	1464	1101	1180	1180					
Turkey	Estimate	48,500	0.111	1.00	53.1	415,373	8.71	51,241	19.0	
	(SE)	(4,315)	(0.007)	(0.07)	(2.9)	(31,206)	(0.47)	(2,628)	(1.0)	
	N	-	280	290	292	-	282	1548	1548	

^a Calculated as a percent of big game license holders only.



1983-84 MISSISSIPPI HUNTER QUESTIONNAIRE

A. Please fill in the blocks below for each game species you hunted during the 1983-84 hunting season (even if you were unsuccessful). If you hunted more than one kind of game on a particular day, count it as a day for each type of game you hunted. Report only game taken by you. Your answers will be kept confidential.

SPECIES	TOTAL KILL	TOTAL DAYS HUNTED	REGION HUNTED MOST	Determine REGION HUNTED MOST from map.
1 Dove				 Region 1 2 3 4 5
2 Quail				
3 Woodcock				
4 Rabbit				
5 Squirrel				
6 Raccoon				
Bucks Does				
7 Deer (archery)				 Region 1 2 3 4 5
8 Deer (prim. weapon)				
9 Deer (gun)				
Malled Wood Other				
10 Turkey (Spring '83)				 Region 1 2 3 4 5
11 Turkey (Fall '83)				
12 Ducks				 Region 1 2 3 4 5
13 Geese				
14 Red Fox				 Region 1 2 3 4 5
15 Gray Fox				
16 Bobcat				
17 Coyote				

B. Please answer the following questions.

1. The 1983-84 fall and winter hunting seasons have just been completed. Did you purchase a license to hunt deer and turkey during the previous 1982-83 hunting seasons (not the one just completed)?

Yes
 No
 2. Morning hunting of doves has been permitted for the past four seasons. Are you in favor of continuing dove hunting during the morning hours in future seasons? (check one)

Yes
 No
 Not sure
 3. If you hunted doves, did you hunt during:
 - a. opening day (September 3, 1983)

Yes
 No
 - b. the rest of the first season (September 4 - October 2, 1983)

Yes
 No
 - c. the second season (October 15 - November 6, 1983)

Yes
 No
 - d. the third season (December 24, 1983 - January 9, 1984)

Yes
 No
 4. If you hunted deer during the regular gun season, did you hunt on opening day (November 19,
- 1983)? (Check one)

Yes
 No
5. Do you consider the recreational harvest of antlerless (doe) deer a legitimate wildlife management practice? (Check one)

Yes
 No
 Not sure
 6. If you deer hunt during the regular gun season, what is your preferred weapon? (Check one)

rifle
 shotgun with slugs
 shotgun with buckshot
 other (specify: _____)
 7. Do you hunt on National Forest (U.S. Forest Service) lands? (Check one)

Yes
 No
 8. 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)
 9. If you hunt ducks, which 50 day season would you prefer to have? (Check one)

Dec. 13 - Jan. 31
 Dec. 2 - Jan. 20
 10. Your age: _____ yrs.

Fig. 1 Questionnaire used for the 1983-84 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,

A handwritten signature in black ink, appearing to read "Lon Strong".

Lon Strong
Executive Director

LS:be

Enclosure

Fig. 2 Cover letter mailed with the initial mailing of the 1983-84 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,



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 1983-84 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 1983-84 hunting season and last spring's (1983) 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 1983-84 survey of game harvest and hunter effort in Mississippi.