MISSISSIPPI NON-RESIDENT MAIL SURVEY OF

GAME HARVEST AND HUNTER EFFORT FOR

1997-98

by

Catherine C. Shropshire

Mississippi Department of Wildlife, Fisheries and Parks P. O. Box 451 Jackson, Mississippi 39205

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INTRODUCTION

The purpose of the non-resident game harvest survey is to establish indices of harvest and hunter effort for each game species taken by non-residents. These indices will provide trend data which will allow staff to monitor changes in harvest and effort through time. When interpreting these data, it is important to consider habitat changes, species abundance, the current socio-economic climate of the state as well as changes in management strategies.

The Mississippi Department of Wildlife Fisheries and Parks (MDWFP) used a mail survey to obtain data on total harvest, average daily kill, average seasonal harvest, and total man-days hunted for each game species hunted by non-residents. The estimates obtained for each of these categories contain serious sampling, response and nonresponse biases, therefore the accuracy of these estimates is unknown. Filion (1980) provided a good review of these biases and their effect on the estimates. Recognizing that these biases exist and assuming all biases remain constant, the estimates obtained from the survey provide adequate indices for monitoring trends in non-resident hunter harvest and effort.

The primary objective of the non-resident mail survey for the 1997-98 hunting season was to obtain a reliable set of <u>statewide</u> indices for each game species in Mississippi. Harvest estimates were calculated for each district as well. The survey also will be used as a tool to monitor hunter attitudes and perceptions on specific issues. The results of the survey will be used to help guide future management decisions.

METHODS

The sampling frame for the survey consisted of non-resident holders of a Type 40 - All Game Hunting, Type 41 - 5 Day All Game Hunting, Type 33 Small Game Hunting or Type 34 - 5 Day Small Game Hunting license purchased during the 1997-98 license year.

An approximate 0.20 percent random sample of these hunting license buyers was selected from the 25,312 licenses processed from July 1, 1997 - January 31, 1998.

An initial sample of 2,903 Type 40 - All Game Hunting, 782 Type 41 - 5 Day All Game Hunting, 536 Type 33 - Small Game Hunting and 841Type 34 - 5 Day Small Game Hunting licenses holders was selected. All types were combined into a single computer file for mailing purposes. Deletion of bad addresses resulted in a final list of 4,768 hunters.

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 12, 1998 to the 4,768 sampled hunters. Three weeks after the initial mailing reminder post cards (Figure 3) were mailed to 2,880 sampled hunters who had not returned their questionnaire. The final 2,340 piece mailing, composed of the identical questionnaire, cover letter (Figure 4) and business reply envelope was mailed approximately three weeks after the reminder post card mailing to the remaining nonrespondents. First mailing questionnaires were given identification numbers from 100,001 to 104,768, while the final mailing was given a 200,000 numbering sequence to differentiate responses between mailings.

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 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 on a statewide (Figure 5) basis.

The 1997-98 survey obtained information about two different license years. Turkey harvest indices were partially calculated from hunters who hunted during the spring 1997 turkey season, which was the 96/97 license year. Indices for other species were determined for the 1997-98 season alone. Spring 1997 turkey indices were calculated based on the respondents who also purchased a big game license during the previous July 1, 1996 - June 30, 1997 fiscal year (Question 6 on survey).

RESULTS

Based on all three mailings, 579 (12.1%) of the 4,768 questionnaires were returned as non-deliverable by the post office. Therefore 4,189 individuals were assumed to have been contacted to participate in the survey. Of these 2,777 (66.3%) returned their questionnaires for possible analysis. Of those returned, 35 (0.1%) were returned too late for analysis, therefore 2,742 (65.5%) were available for use. Nonresponses were 1,398 (32.6%).

Statewide expansions were calculated based on the total hunting licenses sold for each type and accounted for by the middle of July 1998. There existed 15,591 individuals licensed to hunt all game, 7,036 licensed for 5 day all game hunting, 2,912 licensed for small game hunting and 5,695 licensed for 5 day small game hunting. The spring, 1997 turkey hunting estimates were based on the 14,478 All Game Hunting and 6,164 5-day All Game Hunting licence holders accounted for in the 1996-97 license sales totals.

The expanded statewide summaries of total harvest, average daily kill, average seasonal kill, the percent of hunters and the percent of total licenses that hunted are provided in Table 1 - 22 for all game species included in the survey.

Table 23 summarizes the responses to the additional questions in Part B.

DISCUSSION

This was the fourth year this survey was conducted. Response rates were good, indicating a willingness on the part of non-residents to report their hunting activities.

Total deer harvest increased buy over 10% from the 1996-97 season harvest. This year doe harvest exceeded buck harvest by slightly over 16%. This shift to greater doe harvest was first recorded two years ago and may be due to the four-point rule for buck harvest along with more days available to harvest antlerless deer. It should be noted that not all districts had the same doe opportunity during the deer season. In District 1, doe hunting was closed from December 24 - January 22 in Tippah, Alcorn, Prentiss, Tishomingo, Union, Pontotoc, Lee, and Itawamba counties. In District 4, doe hunting was closed from December 24 - January 22 in Covington, Scott and Smith counties. All of District 6 which includes the counties of Lamar, Forrest, Perry, Greene, Pearl River, Stone, George, Hancock, Harrison, and Jackson was closed to doe harvest from December 24 - January 22. Other districts were open for doe hunting during all deer seasons.

Response and nonresponse biases exist with the survey as previously noted. 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. For management purposes, it should be reemphasized that the hunting data provided are only indices to harvest and effort.

The survey should be continued with a sample of 3,000-5,000 non-resident hunters. To avoid changes in biases, attention to the consistency of survey methodology should be continued in future surveys.

ACKNOWLEDGMENTS

This survey could not have been accomplished without the conscientious efforts of many MDWFP personnel from all divisions. Special thanks goes to Dene Smith for data entry and anything else that needed to be done. Appreciation is extended to C. Blakeney and T. Williams for technical expertise and B. Ellison, R. Spencer, B. Thomason and J. Tindall for help with mailing preparation.

REFERENCES CITED

- Filion, F.L. 1980. Human surveys in wildlife management. Pages 441-453 in S.D. Schemnitz, ed. Wildlife techniques manual. 4th ed. rev. The Wildl. Soc., Washington, D.C. 686 pp.
- Steffen, D.E. 1981. Mississippi mail survey of game harvest and hunter effort for 1980-81. Miss. Dept. Wildl. Cons., Fed.Aid Proj. No. W-48-28, Job VI-a. 87 pp.

TABLE 1. TOTAL 1997-98 DEER HARVEST IN MISSISSIPPI BY NON-RESIDENTS

TOTAL T MANDAYS	321,680				
TOTAL HARVEST	36,951	BUCK	15,446	DOE	21,505

TABLE 2. TOTAL 1997-98 DEER HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY WEAPON TYPE

TOTAL	27,145				
TOTAL HARVEST PRIMITIVE	3,320	BUCK	1,098	DOE	2,222
TOTAL	58,867				
TOTAL HARVEST ARCHERY	5,591	BUCK	1,463	DOE	4,128
TOTAL MANDAYS	235,668				

TABLE 3. 1997-98 GUN DEER HARVEST IN MISSISSIPPI BY NON-RESIDENT TYPE 40 - ALL GAME HUNTING LICENSE BUYERS

AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
90.	0.94	89.4	210,338	15.51	13,564 (1434)	87.0
0.05	0.81	53.8				
90.0	0.97	52.5				

DISTRICT HUNTED MOST

DISTRICT 6	2.6%
DISTRICT 5	74.4%
DISTRICT 4	8.6%
DISTRICT 3	4.8%
DISTRICT 2	4.5%
DISTRICT 1	2.1%

TABLE 4. 1997-98 GUN DEER HARVEST IN MISSISSIPPI BY NON-RESIDENT TYPE 41 - 5 DAY ALL GAME HUNTING LICENSE BUYERS

TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	% TOTAL LICENSEES
3,896	0.15	0.78	56.5	25,330	5.07	4,996 (299)	71.0
BUCK							
1,898	70:0	0.38	33.4				
DOE							
1.998	0.08	0.40	30.8				

DISTRICT HUNTED MOST

DISTRICT 6	3.9%
DISTRICT 5	42.5%
DISTRICT 4	19.3%
DISTRICT 3	15.4%
DISTRICT 2	8.8%
DISTRICT 1	10.2%

TABLE 5. 1997-98 ARCHERY DEER HARVEST IN MISSISSIPPI BY NON-RESIDENT TYPE 40 - ALL GAME HUNTING LICENSE BUYERS

TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
5,409	60:0	0.36	51.2	56,294	10.20	5,519 (584)	35.4
BUCK							
1,380	0.02	0.25	18.0				
DOE							
4,029	0.07	0.73	43.3				

91 DISTRICT HUNTED MOST

DISTRICT 6	5.9%
DISTRICT 5	79.3%
DISTRICT 4	7.1%
DISTRICT 3	2.7%
DISTRICT 2	3.7%
DISTRICT 1	1.4%

TABLE 6. 1997-98 ARCHERY DEER HARVEST IN MISSISSIPPI BY NON-RESIDENT TYPE 41 - 5 DAY ALL GAME HUNTING LICENSE BUYERS

TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
	0.07	0.24	0.3	2,573	6.20	415 (25)	5.9
4							
 -	0.03	0.20	0.2				
-							
—	40.04	0.24	0.2				

DISTRICT HUNTED MOST

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TABLE 7. 1997-98 PRIMITIVE WEAPON DEER HARVEST IN MISSISSIPPI BY NON-RESIDENT TYPE 40 - ALL GAME HUNTING LICENSE BUYERS

TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
2,987	0.12	0.62	46.3	25,150	5.22	4,818 (510)	30.9
BUCK							
915	90.04	0.19	16.7				
DOE							
2.072	0.08	0.43	35.7				

DISTRICT HUNTED MOST

DISTRICT 5 DISTRICT 6	77.0% 5.3%
DISTRICT 4	6.4%
DISTRICT 3	3.5%
DISTRICT 2	5.7%
DISTRICT 1	2.1%

TABLE 8. 1997-98 PRIMITIVE WEAPON DEER HARVEST IN MISSISSIPPI BY NON-RESIDENT TYPE 41 - 5 DAY ALL GAME HUNTING LICENSE BUYERS

ES	5.2				
% TOTAL LICENSEES					
TOTAL	366 (22)				,
FOH					
AGE NAL 'S	5.45				
AVERAGE SEASONAL DAYS HUNTING					
S					
TOTAL	1,995				
ERS	54.5		45.5		27.3
% SUCCESSFUL HUNTERS					
	0.91		0.50		0.41
AVERAGE SEASONAL HARVEST	0		0		0
SE. H.					
AGE	0.17		0.09		0.08
AVERAGE DAILY KILL					
]	
TOTAL HARVEST	333	BUCK	183	DOE	150

DISTRICT HUNTED MOST

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RICT	7.1%
DIST	57
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DIST	14
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DIST	14
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RICT 2	2%
DIST	9.
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RICT	%
DIST	4.

TABLE 9. 1997-98 DOVE HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
TYPE 40							
30,127	7.08	24.16	9.88	3,766	3.02	1,247 (132)	8.0
TYPE 41							
3,861	5.30	19.60	83.3	209	3.08	197 (12)	2.8
TYPE 33							
32,289	7.24	30.81	8.86	4,464	4.26	1,048 (86)	36.0
TYPE 34							
23,290	8.50	17.00	94.4	2,740	2.00	1,370	24.1
TOTAL							
89,567				11,577		3,862	

DISTRICT HUNTED MOST

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STRICT	10.4%
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TABLE 10. 1997-98 QUAIL HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	A SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
TYPE 40							
2,184	2.24	14.00	91.3	888	5.69	156 (23)	1.0
TYPE 41							
556	2.86	8.83	100.0	126	2.00	63 (4)	6.0
TYPE 33							
6,542	3.88	24.14	100.0	1,688	6.23	271 (22)	9.3
TYPE 34							
2,710	5.50	17.60	0.06	493	3.20	154 (10)	2.7
TOTAL							
11,992				3,195		644	

DISTRICT HUNTED MOST

	-
DISTRICT 6	15.5%
DISTRICT 5	27.6%
DISTRICT 4	5.2%
DISTRICT 3	12.1%
DISTRICT 2	22.4%
DISTRICT I	17.2%

TABLE 11. 1997-98 WOODCOCK HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TYPE 40 TYPE 41 3.3 100.0 0 0 0 TYPE 33 33.0	3	62	2 0	31 (3)	0.2
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3	0	2 0	(3)	0.2
0 0 0		0	0	0	0
0 0 0		0	0	0	0
0.02 0.33					
0.02 0.33					
		473	16.33	29 (3)	1.2
TYPE 34					
210 14.00 14.00 100.0		15	1	15 (1)	0.3
TOTAL					
322		550		75	

DISTRICT HUNTED MOST

DISTRICT 6	
DISTRICT 5	44.4%
DISTRICT 4	11.1%
DISTRICT 3	
DISTRICT 2	11.1%
DISTRICT 1	33.3%

TABLE 12. 1997-98 RABBIT HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

1.71 7.49 89.6 2.45 15.63 50.0 1.27 11.00 84.2 2.10 7.42 73.7	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
1.71 7.49 89.6 4,622 3.9 1,185 2.45 15.63 50.0 855 6.38 134 1.27 11.00 84.2 2,563 8.63 233 2.10 7.42 73.7 1,024 3.53 290 9,064 1,842	TYPE 40							_
2.45 15.63 50.0 855 6.38 134 (8) 1.27 11.00 84.2 2,563 8.63 233 1 2.10 7.42 73.7 1,024 3.53 290 1 9,064 1,842	8,876	17.1	7.49	9.68	4,622	3.9	1,185 (125)	7.6
2.45 15.63 50.0 855 6.38 134 1.27 11.00 84.2 2,563 8.63 233 1 2.10 7.42 73.7 1,024 3.53 290 1 9,064 1,842	TYPE 41							
1.27 11.00 84.2 2,563 8.63 233 2.10 7.42 73.7 1,024 3.53 290 9,064 1,842	2,094	2.45	15.63	50.0	855	6.38	134 (8)	1.9
1.27 11.00 84.2 2,563 8.63 233 (19) 2.10 7.42 73.7 1,024 3.53 290 (19) 9,064 1,842	TYPE 33							
2.10 7.42 73.7 1,024 3.53 290 (19) 9,064 1,842	2,563	1.27	11.00	84.2	2,563	8.63	233 (19)	8.0
2.10 7.42 73.7 1,024 3.53 290 9,064 1,842	TYPE 34							_
9,064	2,151	2.10	7.42	73.7	1,024	3.53	290 (19)	5.1
9,064	TOTAL							
	16 604				9,064		1,842	

DISTRICT HUNTED MOST

DISTRICT 6	11.8%	
DISTRICT 5	27.6%	
DISTRICT 4	8.2%	
DISTRICT 3	7.6%	
DISTRICT 2	10.6%	
DISTRICT I	4.1%	

TABLE 13. 1997-98 SQUIRREL HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

	DAILY KILL	AVERAGE SEASONAL HARVEST	A SUCCESSFUL HUNTERS	MANDAYS	AVERAGE SEASONAL DAYS HUNTING	HUNTERS	LICENSEES
TYPE 40							
52,767	2.77	13.93	90.3	19,054	5.03	3,788 (401)	24.3
TYPE 41							
4,709	3.14	25.73	81.8	1,497	8.18	183 (11)	2.8
TYPE 33							
7,800	2.63	19.23	91.2	3,045	7.32	416 (34)	14.3
TYPE 34							
2,940	3.25	12.00	93.7	906	3.69	245 (16)	4.3
TOTAL							
68 216				23,858		4,583	

DISTRICT HUNTED MOST

DISTRICT 6	9.3%
DISTRICT 5	74.8%
DISTRICT 4	6.4%
DISTRICT 3	2.5%
DISTRICT 2	5.9%
DISTRICT I	1.1%

TABLE 14. 1997-98 RACCOON HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
TYPE 40							
1,203	1.09	5.14	0.88	973	4.16	234 (25)	1.5
TYPE 41							
14	-	1	100.0	14	1	14 (1)	0.2
TYPE 33							
812	0.84	7.0	8.77	996	8.33	116 (9)	4.0
TYPE 34							
368	2.00	8.00	1.99	184	4	46 (3)	0.8
TOTAL							
2,397				2,137		410	

DISTRICT HUNTED MOST

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TABLE 15. 1997 SPRING TURKEY HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

AL		16.7		7.8		
% TOTAL LICENSEES						
TOTAL		2,128 (275)		368 (33)		3,153
AVERAGE SEASONAL DAYS HUNTING		96.9		4.00		
TOTAL		14,811		1,472		16,283
素 SUCCESSFUL HUNTERS		41.1		39.4		
AVERAGE SEASONAL HARVEST		0.65		0.64		
AVERAGE DAILY KILL		0.09		0.16		
TOTAL	TYPE 40	1,383	TYPE 41	236	TOTAL	1,619

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TABLE 16. 1997 FALL TURKEY HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

% TOTAL LICENSEES	2.0		0.5		
TOTAL HUNTERS L	289 (33)		31 (2)		347
AVERAGE SEASONAL DAYS HUNTING	5.24		3.50		
TOTAL	1,514		109		
% SUCCESSFUL HUNTERS	24.2		0		
AVERAGE SEASONAL HARVEST	0.39		0		
AVERAGE DAILY KILL	0.07		0		
TOTAL	113	TYPE 41	0	TOTAL	113

DISTRICT HUNTED MOST

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TABLE 17. 1997-98 DUCK HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TABLE 18. 1997-98 GOOSE HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

í

TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
TYPE 40							
171	0.45	1.90	70.0	390	4.20	93 (10)	9.0
TYPE 41							
0	0	0	0	0	0	0	0
TYPE 33							
394	0.57	3.40	100.0	174	6.67	116 (10)	4.0
TYPE 34							
531	0.79	2.33	0.08	899	2.93	228 (15)	4.0
TOTAL) Pro-				
1.102				1.832		437	

DISTRICT HUNTED MOST

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TABLE 19. 1997-98 RED FOX HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	% SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	% TOTAL LICENSEES
TYPE 40							
47	0.23	1.50	100.0	202	6.50	31 (4)	0.2
TYPE 41						-	
0	0	0	0	0	0	0	0
TYPE 33							
0	0	0	0	0	0	0	0
TYPE 34							
11	0.50	1.00	100.0	22	2.00	11	0.2
TOTAL							
58				224		42	

DISTRICT HUNTED MOST

	_	ı
DISTRICT 6	20.0%	
DISTRICT 5	60.0%	
STRICT 3 DISTRICT 4		
DISTRICT 2		
DISTRICT I	20.0%	20.0%

TABLE 20. 1997-98 GRAY FOX HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

	-	0 0	0 0		0.00.0		# SUCCESSFUL TOTAL AVERAGE HUNTERS MANDAYS SEASONAL DAYS DAYS
	100.0 22	100.0					
4.00 100.0			0 0 0	0	0	0 0	08

DISTRICT HUNTED MOST

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DISTRICT 2 DISTRICT 3	50.0%
FI DISTRICT 2 DISTRICT 3	50.0%
CT 1 DISTRICT 2 DISTRICT 3	50.0%
RICT I DISTRICT 2 DISTRICT 3	50.0%
TRICT I DISTRICT 2 DISTRICT 3	50.0%
ISTRICT 1 DISTRICT 2 DISTRICT 3	50.0%
DISTRICT 1 DISTRICT 2 DISTRICT 3	50.0%
DISTRICT 1 DISTRICT 2 DISTRICT 3	50.0%

TABLE 21. 1997-98 BOBCAT HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

TYPE 40 591		HARVEST			DAYS HUNTING	HUNTERS	LICENSEES
_	0.22	1.46	100.0	2,665	6.58	405 (43)	2.6
TYPE 41	1						
	0.13	0.67	66.7	261	5.33	49 (3)	0.7
TYPE 33							
	0.33	1.00	100.0	36	3	(1)	0.4
TYPE 34							_
11	0.50	1.00	100.0	22	2	: (E)	0.5
TOTAL							
639				2,984		477	

DISTRICT HUNTED MOST

DISTRICT 6	4.2%	
DISTRICT 5	72.9%	
DISTRICT 4	12.5%	
DISTRICT 3	2.1%	
DISTRICT 2	2.1%	
DISTRICT I	26.3	0.50

TABLE 22. 1997-98 COYOTE HARVEST IN MISSISSIPPI BY NON-RESIDENTS BY LICENSE TYPE

% TOTAL LICENSEES		3.2		6.0		0.4		0.5		
TOTAL		499 (52)		63 (4)		12 (1)		(2) 28		602
AVERAGE SEASONAL DAYS HUNTING		7.33		5.25		1		1.5		
TOTAL		3,658		331		12		\$		4,085
% SUCCESSFUL HUNTERS		100.0		100.0		100.0		100.0		
AVERAGE SEASONAL HARVEST		1.75		1.25		1.00		1.00		
AVERAGE DAILY KILL		0.24		0.24		1.00		19:0		
TOTAL	TYPE 40	873	TYPE 41	79	TYPE 33	12	TYPE 34	28	TOTAL	992

DISTRICT HUNTED MOST

DISTRICT 6	12.9%
DISTRICT 5	54.8%
DISTRICT 4	12.9%
DISTRICT 3	4.8%
DISTRICT 2	8.1%
DISTRICT I	6.5%

TABLE 23. SUMMARY OF RESPONSES TO ADDITIONAL QUESTIONS

1. Did you take a child under the age of 16 hunting during the 1996-97 hunting season?

34.2% 935 Yes

62.3% 1,704 No

3.5% 96 No response

2. Did you take a child under the age of 16 hunting during the 1997-98 hunting season?

34.2% 935 Yes

62.0% 1.696 No

3.8% 104 No response

3. Do you personally own land in Mississippi?

14.5% 397 Yes

81.9% 2,241 No

3.5% 97 No response

3a. If yes, how much land do you own in Mississippi?

51.0% 207 1 - 50 acres

11.1% 45 51 - 100 acres

24.6% 100 101 - 500 acres

4.9% 20 501 - 1000 acres

8.4% 34 Over 1000 acres

4. Were you checked by a Mississippi Department of Wildlife, Fisheries and Parks conservation officer during the 1996-97 hunting season?

22.2% 608 Yes

73.9% 2,021 No

3.9% 106 No response

5. Were you checked by a Mississippi Department of Wildlife, Fisheries and Parks conservation officer during the 1997-98 hunting season?

19.2% 524 Yes

76.0% 2,079 No

4.8% 132 No response

5a. Overall, how satisfied were you with your contact with the Conservation Officer??

62.1% 453 Very satisfied

13.3% 97 Somewhat satisfied

9.6% 65 Neither satisfied nor dissatisfied

2.7% 19 Somewhat dissatisfied

4.2% 30 Very dissatisfied

13.3% 65 Don't know

- 6. Did you buy a license to hunt deer/turkey during the 1996-97 hunting?
 - 68.5% 1,873 Yes
 - 27.8% 761 No
 - 3.7% 101 No response
- 7. How many years have you hunted in Mississippi?
 - 1.1% 31 0
 - 13.5% 369 1
 - 31.0% 848 2 5
 - 16.3% 445 6 10
 - 34.7% 949 More than 10 years
- 8. Who introduced you to hunting?
 - 62.1% 1,698 Father/stepfather
 - 0.3% 3 Mother/stepmother
 - 5.1% 140 Grandparent
 - 2.9% 78 Brother/sister
 - 7.1% 194 Other relative
 - 2.4% 66 Friend
 - 15.9% 435 Friend
 - 0.9% 24 Spouse0
 - 1.9% 51 Other
- 9. Age:
 - 43 Average age
- 10. Sex:
- 96.6% 2,643 Male
- 1.8% 48 Female
- 11. Race:
- 2.0% 56 African American
- 95.2% 2,604 White
- 0.3% 8 Hispanic
- 0.2% 6 American Indian
- 0.1% 4 Asian
- 0.2% 6 Other
- 1.9% 51 No response



1997-98 Mississippi Non-Resident Hunter Questionnaire

A. Please fill in the blocks below for each game species you hunted during the 1997-98 hunting season (even if you were unsuccessful). If you hunted more than one kind of game on a particular day, count a day for each type of game you hunted. Report only game taken by you. Your answers will be kept confidential. Please answer the questions in part B, whether you hunted or not.

SPECIES	Totai Kiil	Total Days Hunted	District Hunted Most	Determine district HUNTED MOST from map.
1. Dove				
2. Quail				
3. Woodcock				
4. Rabbit				There are a second and a second are a second
5. Squirrel				
6. Raccoon				A THE PARTY OF THE
	Bucks Does			8
7. Deer (archery)]		
8. Deer (prim. weap)				S S TOWN L
9. Deer (gun)				7/12
10. Turkey (spring '97)				
11. Turkey (fall '97)				7
Mallaro	Wood Other			
12. Ducks				
13. Geese				
14. Red Fox				
15. Gray Fox				SECTION SECTION
16. Bobcat				
17 Covote				المنافعة الم

FIGURE 1. QUESTIONNAIRE USED FOR THE 1997-98 MAIL SURVEY OF NON-RESIDENT GAME HARVEST AND HUNTER EFFORT IN MISSISSIPPI

æ	Please answer	Please answer the following questions.	5. Wer	Were you checked by a Mississippi Department of Wildlife, Fisheries an Parks conservation officer during the 1997-98 hunting season?
_ i	Did you take a season?	Did you take a child under the age of 16 hunting during the 1996-97 hunting season?		Yes (Go to question 5a)
	- Yes		7	No (Go to question 6)
	ž		Sa.	Overall, how satisfied were you with your contact with the Conservation Officer?
5	Did you take a season?	Did you take a child under the age of 16 hunting during the 1997-98 hunting season?		Very satisfied
	\$ £			Somewhat satisfied Neither satisfied nor dissatisfied Somewhat dissatisfied
e,	Do you person	Do you personally own land in Mississippi?		Uvery dissatisfied Don't know
	☐ Yes (Go to 3) ☐ No (Go to 4)	Yes (Go to 3a) No (Go to 4)	6. Did sea	Did you buy a license to hunt deer/turkey during the 1996-97 hunting season?
	3a. If yes,	If yes, how much land do you own in Mississippi?	0	Yes
	0	1 - 50 acres	0	No
	-	51 - 100 acres	7. Ho	How many years have you hunted in Mississippi?
	-	101 - 500 acres		c
	0	OUT-1000 acres	0	» –
4	Were you che Parks conserv	Were you checked by a Mississippi Department of Wildlife, Fisheries and Parks conservation officer during the 1996-97 hunting season?	000	2 - 5 6 - 10 More than 10 years
	ž 2			- OVER -

0.	WIIO	introduced you to number	R:	•.
		Father/stepfather		
		Mother/stepmother		
		Grandparent		
		Brother/sister		
		Other relative		
		Other adult		
		Friend		
		Spouse		
		Other		
group	s, pleas			nents and to better serve our user s information is voluntary and will be
9.	Age:	Years		
10.	Sex:	☐ Male ☐ Ferna	ale	
11.	Race:	African American	☐ White	☐ Hispanic
		American Indian	☐ Asian	Other



MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS

SAM POLLES, Ph.D.

100717

MARCH 12, 1998

Dear Sportsman:

The Mississippi Department of Wildlife, Fisheries and Parks is conducting its non-resident hunter survey. This survey is designed to obtain reasonable estimates of game harvest, hunter effort and hunter opinions. Information supplied by you and other selected non-resident 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 sportsman can be contacted. Please complete the enclosed questionnaire as accurately as possible (even if you did not hunt) and return it in the addressed, stamped envelope.

Your answers will be kept confidential. The questionnaire has an identification number for mailing purposes only. This allows us to check your name off the list when your questionnaire is returned. Your name will never be placed on the questionnaire or used in association with any of the information you provide. A prompt reply will be sincerely appreciated.

Yours for better conservation,

Sam Polles, Ph.D.

Executive Director, Mississippi

P. O. Box 451 • Jackson, Mississippi 39205-0461 • (601) 362-9212

FIGURE 2. COVER LETTER MAILED WITH THE INITIAL MAILING OF THE 1997-98 NON-RESIDENTSURVEY OF GAME HARVEST AND HUNTER EFFORT IN MISSISSIPPI

Dear Sportsman:

Recently we mailed you a questionnaire on your hunting experiences in Mississippi. 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, efforts and opinions of hunters in Mississippi for management purposes.

Sincerely,

Sam Polles, Ph.D. Executive Director

FIGURE 3. POST CARD USED AS THE FIRST REMINDER MAILING TO NONRESPONDENTS DURING THE 1997-98 NON-RESIDENTSURVEY OF GAME HARVEST AND HUNTER EFFORT IN MISSISSIPPI



MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS

SAM POLLES, Ph.D Executive Director

200001

MAY 05, 1998

Dear Sportsman:

About six weeks ago I wrote you seeking information about your hunting activities during the past season in Mississippi. As of today we have not received your completed guestionnaire.

Our research unit has undertaken this project because of the belief that citizen participation should be taken into account in the formation of efforts which will provide the best hunting opportunities for sportsmen in Mississippi.

I am writing to you again because of the significance each questionnaire has to the usefulness of this project. Your name was drawn through a scientific sampling process. In order for the results of the survey to be as complete as possible it is essential that each person in the sample return the questionnaire. Even if you had little success or if you did not hunt at all, your answers are important to us. Please return the survey in the enclosed addressed, stamped envelope so that your response can be included in the results.

Sincerely for better conservation,

Sam Polles, Ph.D.

Executive Director, Mississippi

FIGURE 4. COVER LETTER MAILED WITH THE SECOND (AND FINAL) REMINDER MAILING TO NONRESPONDENTS DURING THE 1997-98 NON-RESIDENT SURVEY OF GAME HARVEST AND HUNTER EFFORT IN MISSISSIPPI

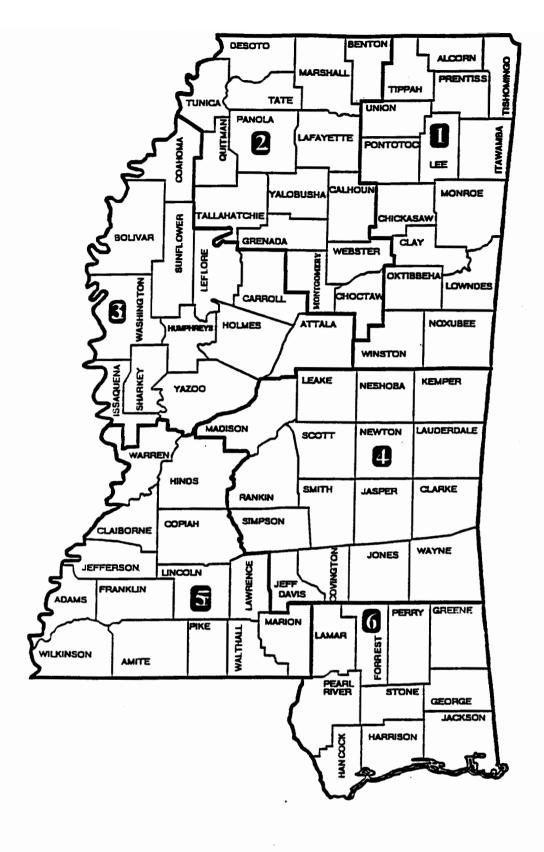


FIGURE 5. DISTRICT PARTITIONS FOR DISTRICT HUNTED MOST