Resident Hunter Effort & Game Harvest Estimates for the 2008-2009 Mississippi Hunting Season

Prepared for the

DIVISION OF WILDLIFE
MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES & PARKS
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INTRODUCTION

The primary purpose of the Mississippi resident hunter survey is to establish annual statewide and district estimates of hunter effort and harvest for each game species. These estimates provide trend data which allows Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) Wildlife Division staff to monitor changes in harvest and effort through time. The secondary purpose is to measure resident hunters' participation patterns, attitudes towards hunting and wildlife, and opinions towards agency programs and wildlife management tools. When interpreting this data, it is important to consider current wildlife management programs, habitat changes and availability, land use practices, species abundance, and the social and economic climate of the state.

Since 1974, a self-administered mail survey has been used to obtain total harvest, average daily kill, average seasonal harvest, and total man-days hunted for each game species among others. The estimates obtained for each of these categories are precise because of the large sample size used, however, because mail surveys contain sampling, response, and nonresponse biases the accuracy of the estimates are always of concern to researchers (Filion 1980). Nevertheless, similar methodologies used to conduct the mail survey over time help to hold constant these biases and the estimates derived from the survey should provide adequate estimates for monitoring trends in hunter harvest and effort.

The primary objective of the mail survey for the 2008-09 hunting season was to obtain a reliable set of statewide effort and harvest estimates for each game species in Mississippi. The secondary objective was to provide district estimates. The third objective was to monitor hunter attitudes and perceptions on specific management issues. No effort was made to interpret the data presented here. The purpose of this publication is to compile existing information for future reference and to help guide future management decisions.

METHODS

The sampling frame for the survey consisted of resident holders of a Type 100 – Sportsman, Type 101 – All Game Hunting and Fishing or Type 103 – Small Game Hunting and Fishing licenses purchased during the 2008-2009 license year. A sample of 4,279 licensed, resident hunters was selected to participate in this study from the 178,699 licenses processed from July 1, 2008 – June 30, 2009. This sample included an initial random sample of 2,000 licensed hunters for game harvest estimation, and additional samples of All Game, Small Game, and Resident Duck Stamp (160) holders to ensure adequate sample sizes for attitude, opinion, and willingness-to-pay questions. This supplementary sampling resulted in a final sample consisting of 2,265 sportsman's license hunters, 1,006 all game hunters, 1,008 small game hunters, and 1,128 duck stamp holders.

The survey process followed the Tailored Design Method (TDM) prescribed by Dillman (1978). This methodology pays particular attention to detail, persistence, and takes a personal approach to obtaining a response. This is accomplished, in part, by using personalized letters and envelopes processed with laser printers to simulate a first class mailing to differentiate it from "junk mail". The TDM uses a series of four mail-outs to help increase response rate: 1) An introductory letter, questionnaire (APPENDIX A), and postage-paid business reply envelope (i.e., a complete packet) were sent; 2) Ten days after the second mailing a post card that was sent to all hunters in the survey. The purpose of the post card was to remind hunters about the survey and to thank those whom had already returned a completed questionnaire. A phone number was provided on the post card in case the recipient had not received or misplaced their questionnaire so they could request another be sent; 3) Twenty-one days after the postcard mailing, a second complete packet was sent to all hunters who had not yet responded, and 4) Twenty-eight days after the second complete packet was sent, a third complete mailing was sent to all hunters who had not yet responded. Actual correspondence can be found in APPENDIX B. All surveys were numbered using a bar coding system printed on clear adhesive labels. When surveys were

returned to Mississippi State University, the bar codes were scanned into a computer file and assigned with a "returned" status; this prevented respondents from receiving another mailing.

Procedures for editing and data entry of returned questionnaires were similar to Steffen (1981). Data entry involved entering data from the surveys into the computer using a Microsoft Access data entry screen that had been previously developed. First, non-numeric responses in the survey were numerically coded for preparation for data entry. After all responses were converted into a numeric framework, responses from the surveys were data entered. The responses to the last question of the survey, which was open-ended, were typed into an MS Access file so comments could be queried by agency staff.

Effort and harvest estimates and their standard errors for each species were calculated for 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 per hunter. These estimates were calculated both on a statewide and district basis. Calculations were based on statistical programs originally developed by Steffen (1981) for mainframe computing, modified as necessary for desktop computing using SAS software.

RESULTS

A total of 4,279 questionnaires were mailed to resident hunters. There were a total of 1,752 useable questionnaires returned by hunters. Useable questionnaires included those who indicated they hunted at least one species one or more days during the 2008-09 season (n=1,610), and those who indicated they "DID NOT HUNT" on their returned survey (n=142). Thus, since harvest estimates are extrapolated to all hunter license holders, those who indicated they did not hunt were included in the database as hunting zero days and harvesting zero animals for each species. Questionnaires were checked for the completeness of responses where it was found that 24 individuals indicated their refusal to participate. When non-deliverable surveys (n=316) were excluded from consideration, an effective response rate of 44.2% was obtained.

Statewide expansions were calculated based on the 178,699 total hunting licenses sold and accounted for by June 30, 2005. There were 178,699 individuals licensed to hunt small game (Type 100, 101, & 103) and 174,995 (Types 100 & 101) of these license holders also were eligible to pursue big game (deer and turkey) during the 2008-2009 hunting season.

The expanded statewide summaries of the total harvest, average daily kill, average seasonal harvest, percent of successful hunters, total man-days, average days hunted in the season, total number of hunters, and percent of total licenses 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 (standard error and 95 percent confidence limits) for all game species surveyed.

Tables 3-8 summarize small game hunting on a statewide and district basis. Waterfowl hunting is summarized in Tables 9-13. Tables 14-17 summarize fox (red and gray), bobcat, and coyote hunting. Statewide and district summaries of deer (buck and doe data from archery, primitive weapon, and gun seasons) and turkey hunting (spring and fall) are provided in Tables 18-26. Table 27 summarizes district and statewide estimates for feral hog. Tables 28-58 summarize hunter responses to demographic, participation, attitude, and opinion questions contained in the questionnaire.

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TABLE 1. EXPANDED STATEWIDE COVERAGE OF THE 2008-09 MISSISSIPPI RESIDENT MAIL SURVEY OF GAME HARVEST BASED ON 178,699 SMALL GAME LICENSE HOLDERS AND 174,995 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	924,200	5.80	21.68	91.8	156,123	3.75	42,637	23.9
QUAIL	44,966	4.08	12.36	76.0	8,891	2.65	3,638	2.0
WOODCOCK	4,657	0.86	6.40	60.0	5,384	7.40	728	0.4
RABBIT	206,057	1.15	7.82	86.2	168,015	6.60	26,339	14.7
SQUIRREL	497,389	2.31	13.05	91.2	211,003	5.73	38,126	21.3
RACCOON	35,361	0.30	4.63	87.8	108,704	15.24	7,130	4.0
TOTAL DUCK	357,544	2.16	24.07	88.9	146,102	11.16	13,097	7.3
MALLARD	151,632	0.89	9.90	74.4				
WOOD DUCK	78,727	0.49	5.48	71.1				
OTHER DUCKS	127,185	0.78	8.69	64.4				
GEESE	17,026	1.37	6.40	93.3	10,186	4.67	2,183	1.2
RED FOX	873	0.10	1.20	80.0	6,991	12.00	728	0.4
GRAY FOX	873	0.13	1.20	80.0	6,694	9.20	728	0.4
BOBCAT	2,328	0.04	0.94	82.4	34,073	21.18	2,474	1.4
COYOTE	17,753	0.21	2.09	84.5	56,618	9.14	8,440	4.7
TOTAL DEER	249,764	0.08	2.24	75.7	2,455,774	24.03	111,572	63.8
BUCK	117,245	0.04	1.05	58.5				
DOE	132,519	0.04	1.19	57.5				
ARCHERY DEER	39,276	0.07	1.17	58.9	378,001	13.21	33,603	19.2
BUCK	11,346	0.02	0.34	23.4				
DOE	27,929	0.05	0.83	50.2				
PRIMITIVE DEER	45,531	0.08	0.90	59.2	416,684	9.49	50,331	28.8
BUCK	19,201	0.03	0.38	32.1				
DOE	26,329	0.05	0.52	41.3				
GUN DEER	164,958	0.08	1.59	71.6	1,599,137	16.82	103,862	59.4
BUCK	86,697	0.04	0.83	55.6				
DOE	78,260	0.04	0.75	45.7				
TOTAL TURKEY	22,111	0.07	0.78	48.4	239,972	9.45	27,638	15.8
SPRING 2009	20,802	0.07	0.78	48.0	229,736	9.61	26,038	14.9
FALL 2008	1,309	0.12	0.64	50.0	9,900	5.23	2,037	1.2
HOG	23,865	0.29	2.96	74.5	62,603	9.91	8,004	4.5

(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 VARIABILITY OF THE ESTIMATES) FOR RESIDENTS FOR ALL GAME SPECIES IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

		STANDARD ERROR		95% CONFIDENCE INTERVAL	
SPECIES	TOTAL HARVEST	SE	AS % OF TOTAL (A)	LOWER LIMIT	UPPER LIMIT
DOVE	924,200	74,618	8.1	774,965	1,073,435
QUAIL	44,966	13,544	30.1	17,878	72,053
WOODCOCK	4,657	3,266	70.1	-1,874	11,188
RABBIT	206,057	22,994	11.2	160,069	252,045
SQUIRREL	497,389	49,898	10.0	397,592	597,185
RACCOON	35,361	7,691	21.7	19,980	50,743
TOTAL DUCKS	357,544	52,346	14.6	252,852	462,235
MALLARD	151,632	25,832	17.0	99,968	203,296
WOOD DUCK	78,727	12,546	15.9	53,635	103,818
OTHER DUCKS	127,185	22,076	17.4	83,032	171,337
GEESE	17,026	6,465	38.0	4,097	29,955
RED FOX	873	504	57.7	-134	1,880
GRAY FOX	873	504	57.7	-134	1,880
BOBCAT	2,328	648	27.8	1,033	3,624
COYOTE	17,753	3,401	19.2	10,951	24,556
TOTAL DEER	249,764	10,258	4.1	229,249	270,280
BUCK	117,245	5,449	4.6	106,347	128,143
DOE	132,519	6,500	4.9	119,519	145,519
ARCHERY DEER	39,276	3,973	10.1	31,329	47,222
BUCK	11,346	1,752	15.4	7,842	14,850
DOE	27,929	2,872	10.3	22,186	33,672
PRIMITIVE DEER	45,531	3,387	7.4	38,757	52,304
BUCK	19,201	1,849	9.6	15,502	22,900
DOE	26,329	2,300	8.7	21,729	30,929
GUN DEER	164,958	7,065	4.3	150,827	179,088
BUCK	86,697	4,133	4.8	78,431	94,964
DOE	78,260	4,441	5.7	69,378	87,143
TOTAL TURKEY	22,111	2,447	11.1	17,216	27,005
SPRING 2005	20,802	2,391	11.5	16,019	25,584
FALL 2004	1,309	523	40.0	263	2,356
HOG	23,865	6,132	25.7	11,602	36,129

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

TABLE 3. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF DOVE HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	208,702	6.50	22.3	93.8	31,232	3.42	9,367	22.4
	(SE)	32,613.53	0.82	2.20	3.05	5,254.17	0.39	1,140.21	2.47
	N	1,221	62	64	64	1213	62	286	286
2	ESTIMATE	68,933	4.63	14.72	87.5	14,290	3.23	4,683	11.2
	(SE)	18,534.79	0.90	3.06	5.94	3,589.69	0.57	817.32	1.87
	N	1,221	30	32	32	1,213	30	286	286
3	ESTIMATE	182,797	4.94	24.02	96.2	34,915	4.843	7610	18.2
	(SE)	33,417.62	1.32	2.97	2.69	9,915.87	1.21	10,33.08	2.29
	N	1,221	49	52	52	1,213	49	286	286
4	ESTIMATE	230,948	6.16	21.92	91.7	37,714	3.56	10,538	25.2
	(SE)	36,679.89	0.61	2.43	3.28	6,083.75	0.41	12,05.18	2.57
	N	1,221	72	72	72	1,213	72	286	286
5	ESTIMATE	118,840	6.04	22.56	88.9	19,446	3.77	5,269	12.6
	(SE)	332,80.91	0.86	5.19	5.31	4,425.43	0.59	865.44	1.97
	N	1,221	35	36	36	1,213	35	286	286
6	ESTIMATE	108,010	6.36	24.6	96.7	17,089	3.87	4,391	10.5
	(SE)	34,438.86	1.05	6.58	3.33	4,477.33	0.75	792.03	1.82
	N	1,221	30	30	30	1,213	30	286	286
STATEWIDE	ESTIMATE	924,200	5.80	21.68	91.8	156,123	3.75	42,637.46	23.9
	(SE)	74,617.59	0.44	1.36	1.6	14,093.03	0.28	2,174.41	1.22
	N	1,228	284	293	293	1,219	284	1,228	1,228

TABLE 4. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF QUAIL HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	13,097	5.00	18.00	80.0	2,041	3.50	728	20.0
	(SE)	7,988.87	1.52	8.36	20.00	1,500.15	2.18	324.86	8.17
	N	1,228	4	5	5	1,226	4	25	25
2	ESTIMATE	2,619	2.57	4.50	75.0	1,020	1.75	582	16.0
	(SE)	2,206.56	0.93	3.52	25.00	643.93	0.75	290.68	7.48
	N	1,228	4	4	4	1,226	4	25	25
3	ESTIMATE	728	2.50	2.50	100.0	292	1.00	291	80.0
	(SE)	524.48	0.50	0.5	0.00	206.05	0.00	205.71	5.54
	N	1,228	2	2	2	1,226	2	25	25
4	ESTIMATE	16,298	8.00	22.40	80.0	1,312	2.25	728	20.0
	(SE)	8,654.08	5.32	7.19	20.00	728.12	0.63	324.86	8.17
	N	1,228	4	5	5	1,226	4	25	25
5	ESTIMATE	6,694	15.30	23.00	100.0	437	1.50	291	8.0
	(SE)	5,435.95	3.56	13.0	0.00	325.82	0.50	205.71	5.54
	N	1,228	2	2	2	1,226	2	25	25
6	ESTIMATE	5,530	1.46	5.43	57.1	3,790	3.71	1,019	28.0
	(SE)	3,354.10	0.83	2.78	20.2	1,794.49	1.15	384.07	9.17
	N	1,228	7	7	7	1,226	7	25	25
STATEWIDE	ESTIMATE	4,4966	4.08	12.36	76.0	8,891	2.65	3,638	2.04
	(SE)	1,3543.8	1.12	2.86	8.72	2,550.61	0.54	720.45	0.4
	N	1,228	23	25	25	1,226	23	1,228	1,228

TABLE 5. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF WOODCOCK HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	291	1.00	1.00	50.0	291.04	1.00	291.04	40.0
	(SE)	291.04	1.00	1.00	50.00	205.71	0.00	205.71	24.5
	N	1,228	2	2	2	1,228	2	5	5
2	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.0	0.0
	N	1,228	-	-	-	1,228	-	5	5
3	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.0	0.0
	N	1,228	-	-	-	1,228	-	5	5
4	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.0	0.0
	N	1,228	-	-	-	1,228	-	5	5
5	ESTIMATE	2,910	2.00	20.00	100.0	1,455	10.00	146	20.0
	(SE)	2,910.41	-	-	-	1,455.2	-	145.52	20.0
	N	1,228	1	1	1	1,228	1	5	5
6	ESTIMATE	1,455	0.40	5.00	50.0	3,638	12.50	291	40.0
	(SE)	1,455.20	0.16	5.00	50.00	2,999.4	7.50	205.71	24.5
	N	1,228	2	2	2	1,228	2	5	5
	ESTIMATE	4,657	0.86	6.40	60.0	5,384	7.40	728	0.41
STATEWIDE	(SE)	3,265.55	0.43	3.87	24.50	3,338.46	3.56	324.86	0.18
	N	1,228	5	5	5	1,228	5	1,228	1,228

TABLE 6. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF RABBIT HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	54,973	1.57	9.15	87.8	27,085	4.97	6,010	23.8
	(SE)	12,725.76	0.25	1.60	5.17	67,35.58	0.95	923.12	3.26
	N	1,219	37	41	41	1,214	37	172	172
2	ESTIMATE	21,843	1.34	6.21	70.8	16,339	4.63	3,518	14.0
	(SE)	7,950.25	0.23	1.92	9.48	46,77.31	0.96	711.35	2.65
	N	1,219	24	24	24	1,214	24	172	172
3	ESTIMATE	19,057	0.89	7.22	83.3	21,491	8.11	2,639	10.5
	(SE)	7,005.96	0.29	2.11	9.04	10,293.87	3.49	617.59	2.34
	N	1,219	18	18	18	1,214	18	172	172
4	ESTIMATE	35,036	1.58	7.71	83.9	22,226.98	4.87	4,544	18.0
	(SE)	9,621.44	0.18	1.64	6.72	5,623.33	0.89	806.09	2.94
	N	1,219	31	31	31	1,214	31	172	172
5	ESTIMATE	48,523	0.94	8.71	92.1	51,667	9.49	5,571	22.1
	(SE)	12,144.16	0.32	1.70	4.43	21,937.92	3.77	889.84	3.17
	N	1,219	37	38	38	1,214	37	172	172
6	ESTIMATE	23,162	0.96	7.85	95.0	24,141	8.20	2,932	11.6
	(SE)	6,818.30	0.16	1.58	5.00	8,280.43	2.20	650.46	2.45
	N	1,219	20	20	20	1,214	20	172	172
	ESTIMATE	20,6057	1.15	7.82	86.2	168,015	6.60	2,6339	14.7
STATEWIDE	(SE)	22,993.85	0.14	0.69	2.57	27,128.47	0.96	1,808.48	1.01
	N	1,228	174	181	181	1,221	174	1,228	1,228

TABLE 7. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF SQUIRREL HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	104,106	2.54	12.66	92.9	39,072	5.0	8,223	22.3
	(SE)	22,087.20	0.42	2.14	3.47	8,208.68	0.81	1,073.68	2.63
	N	1,217	53	56	56	1,212	53	251	251
2	ESTIMATE	56,825	1.57	9.92	92.3	35,976	6.42	5,727	15.5
	(SE)	12,690.95	0.32	1.59	4.32	8,982.97	1.25	902.55	2.29
	N	1,217	38	39	39	1,212	38	251	251
3	ESTIMATE	86,780	3.08	23.64	96.0	27,719	7.83	3,671	9.96
	(SE)	33,363.84	0.78	7.95	4.00	8,448.72	1.82	726.9	1.89
	N	1,217	24	25	25	1,212	24	251	251
4	ESTIMATE	89,863	2.86	10.2	88.3	31,552	3.57	8,810	23.9
	(SE)	15,530.9	0.29	1.22	4.18	5,028.54	0.35	1,109.45	2.70
	N	1,217	60	60	60	1,212	60	251	251
5	ESTIMATE	85,605	1.85	12.67	93.5	46,444	6.85	6,754	18.3
	(SE)	17,029.63	0.34	1.75	3.68	9,772.10	1.06	977.29	2.44
	N	1,217	46	46	46	1,212	46	251	251
6	ESTIMATE	64,314	2.58	17.52	84.0	25,065	6.8	3,671	10.0
	(SE)	19,477.09	0.33	4.10	7.48	6,672.18	1.23	726.9	1.89
	N	1,217	25	25	25	1,212	25	251	251
STATEWIDE	ESTIMATE	497,389	2.31	13.04	91.2	211,002	5.73	38126	21.34
	(SE)	49,898.45	0.19	1.10	1.75	19,087.57	0.41	2,089.97	1.70
	N	1,228	251	262	262	1,217	251	1,228	1,228

TABLE 8. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF RACCOON HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	10,632	0.76	6.50	90.0	12,525	8.60	1,456	20.8
	(SE)	4,955.15	0.11	2.80	10.00	7,640.45	4.73	458.86	5.92
	N	1,227	10	10	10	1,227	10	48	48
2	ESTIMATE	3,932	0.21	2.78	88.9	17,331	13.20	1,311	18.8
	(SE)	1,430.56	0.07	0.57	0.11	9,283.01	5.89	435.49	5.69
	N	1,227	9	9	9	1,227	9	48	48
3	ESTIMATE	874	0.6	2.00	66.7	1,456	3.33	437	6.3
	(SE)	651.1	0.24	1.15	33.33	943.32	1.20	252.05	3.53
	N	1,227	3	3	3	1,227	3	48	48
4	ESTIMATE	10,340	0.27	6.80	90.0	36,264	24.90	1,456	20.8
	(SE)	4,609.44	0.09	2.43	10.00	19,654.95	11.57	458.86	5.92
	N	1,227	10	10	10	1,227	10	48	48
5	ESTIMATE	5,971	0.19	4.10	90.0	31,021	21.30	1,456	20.8
	(SE)	2,941.63	0.08	1.64	10.00	22,191.17	14.4	458.86	5.92
	N	1,227	10	10	10	1,227	10	48	48
6	ESTIMATE	3,058	0.38	3.50	83.3	8,156	9.33	874	12.5
	(SE)	1,703.12	0.29	1.45	16.67	4,905.18	4.52	356.01	4.82
	N	1,227	6	6	6	1,227	6	48	48
STATEWIDE	ESTIMATE	35,361	0.30	4.63	87.8	108,704	15.20	7,131	4.0
	(SE)	7,960.84	0.06	0.86	4.73	32,301.17	4.04	998.52	0.56
	N	1,228	49	49	49	1,228	49	1,228	1,228

TABLE 9. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF ALL DUCKS HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	59,858	2.14	28.67	91.7	23,505	13.42	1,752	14.0
	(SE)	23,811.39	0.69	9.92	8.33	9,723.20	4.17	503.47	3.76
	N	1,224	12	12	12	1,224	12	86	86
2	ESTIMATE	80,736	1.87	22.35	85.0	34,893	11.95	2,920	23.3
	(SE)	23,279.79	0.39	4.99	8.19	10,487.90	2.49	647.82	4.58
	N	1,224	20	20	20	1,224	20	86	86
3	ESTIMATE	160,012	2.34	31.12	93.9	63,946	13.27	4,818	38.4
	(SE)	36,861.21	0.26	5.33	4.22	14,422.77	1.97	827.64	5.28
	N	1,224	33	33	33	1,224	33	86	86
4	ESTIMATE	15,476	2.65	17.67	66.7	5,840	6.67	876	7.0
	(SE)	8,735.08	0.52	7.56	21.08	2,857.22	1.98	356.88	2.76
	N	1,224	6	6	6	1,224	6	86	86
5	ESTIMATE	22,921	3.34	19.63	100.0	6,862	5.88	1,168	9.3
	(SE)	15,270.22	1.17	11.85	0.00	3,484.57	2.29	411.76	3.15
	N	1,224	8	8	8	1,224	8	86	86
6	ESTIMATE	3,504	0.64	3.00	71.4	4,818	4.71	1,022	8.1
	(SE)	1,636.41	0.25	1.13	18.44	2,470.5	1.77	385.32	2.97
	N	1,224	7	7	7	1,224	7	86	86
	ESTIMATE	357,544	2.16	24.07	89.9	146,102	11.16	13,097	7.3
STATEWIDE	(SE)	52,345.75	0.20	2.93	3.33	20,905.33	1.13	1,329.52	0.74
	N	1,228	90	90	90	1,228	90	1,228	1,228

TABLE 10. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF MALLARD HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

MALLARDS

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
	ESTIMATE	21,315	0.77	10.33	66.7
1	(SE)	10,549.00	0.31	5.18	14.21
	N	1,224	12	12	12
2	ESTIMATE	39,857	0.85	10.15	80.0
	(SE)	11,835.11	0.19	2.33	9.18
	N	1,224	20	20	20
3	ESTIMATE	73,290	1.09	14.52	90.9
	(SE)	20,019.80	0.21	3.34	5.08
	N	1,224	33	33	33
4	ESTIMATE	4,380	0.75	5.0	50.0
	(SE)	3,095.77	0.28	3.16	22.36
	N	1,224	6	6	6
5	ESTIMATE	4,234	0.62	3.63	62.5
	(SE)	2,515.16	0.11	1.85	18.30
	N	1,224	8	8	8
6	ESTIMATE	292	0.06	0.29	14.3
	(SE)	291.99	0.07	0.29	14.29
	N	1,224	7	7	7
	ESTIMATE	151,632	0.89	9.90	74.4
STATEWIDE	(SE)	25,832.01	0.12	1.57	4.62
	N	1,228	90	90	90

TABLE 11. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF WOOD DUCK HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

WOOD DUCKS

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE	17,520	0.67	9.00	83.3
	(SE)	7,038.36	0.31	3.04	11.24
	N	1,224	12	12	12
2	ESTIMATE	13,578	0.32	2.85	60.0
	(SE)	4,420.28	0.08	1.14	11.24
	N	1,224	20	20	20
3	ESTIMATE	29,345	0.45	5.91	72.7
	(SE)	7,772.56	0.06	1.26	7.87
	N	1,224	33	33	33
4	ESTIMATE	5,986	1.03	6.83	66.7
	(SE)	3,455.15	0.44	3.06	21.08
	N	1,224	6	6	6
5	ESTIMATE	4,818	0.70	4.13	100.0
	(SE)	2,186.50	0.11	1.26	0.00
	N	1,224	8	8	8
6	ESTIMATE	2,190	0.36	1.71	42.9
	(SE)	1,313.01	0.29	1.11	20.20
	N	1,224	7	7	7
	ESTIMATE	78,727	0.49	5.48	71.1
STATEWIDE	(SE)	12,545.77	0.06	0.76	4.80
	N	1,228	90	90	90

TABLE 12. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF OTHER DUCK HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

OTHER DUCKS

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE	21,023	0.70	9.33	66.7
	(SE)	8,260.94	0.18	3.10	14.21
	N	1,224	12	12	12
2	ESTIMATE	27,301	0.70	8.35	70.0
	(SE)	9,003.98	0.18	2.31	10.51
	N	1,224	20	20	20
3	ESTIMATE	57,376	0.81	10.7	75.8
	(SE)	14,255.82	0.13	2.18	7.58
	N	1,224	33	33	33
4	ESTIMATE	5,110	0.88	5.83	50.0
	(SE)	3,343.36	0.30	3.27	22.36
	N	1,224	6	6	6
5	ESTIMATE	13,870	2.02	11.88	50.0
	(SE)	11,505.65	1.18	9.53	18.90
	N	1,224	8	8	8
6	ESTIMATE	1,022	0.21	1.00	28.6
	(SE)	887.94	0.11	0.85	18.44
	N	1,224	7	7	7
	ESTIMATE	127,185	0.79	8.69	64.4
STATEWIDE	(SE)	22,076.30	0.10	1.35	5.07
	N	1,228	90	90	90

TABLE 13. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF GOOSE HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
	ESTIMATE	4,366	6.00	10.00	100.0	728	1.67	437	20.0
1	(SE)	3,686.55	3.93	7.50	0.00	436.24	0.33	251.84	10.69
	N	1,228	3	3	3	1,228	3	15	15
2	ESTIMATE	3,784	0.54	1.75	75.0	1,892	3.25	582	26.7
	(SE)	2,353.94	0.20	0.85	25.00	1,259.60	1.65	290.68	11.82
	N	1,228	4	4	4	1,228	4	15	15
3	ESTIMATE	8,149	1.56	9.33	100.0	5,239	6.00	873	40.0
	(SE)	4,756.35	1.18	4.27	0.00	3,185.98	2.97	355.72	13.09
	N	1,228	6	6	6	1,228	6	15	15
4	ESTIMATE	291	0.13	2.00	100.0	2,183	15.00	146	6.7
	(SE)	291.04	-	-	-	2,182.81	-	145.52	6.67
	N	1,228	1	1	1	1,228	1	15	15
5	ESTIMATE	0	-	-	-	0	-	0	0.00
	(SE)	0.0	-	-	-	0.0	-	0.00	0.00
	N	1,228	-	-	-	1,228	-	15	15
6	ESTIMATE	146	1.00	1.00	100.0	146	1.00	146	6.7
	(SE)	145.52	-	-	-	145.52	-	145.52	6.67
	N	1,228	1	1	1	1,228	1	15	15
	ESTIMATE	17,026	1.73	6.40	93.3	10,186	4.67	2,183	1.2
STATEWIDE	(SE)	6,464.54	0.70	2.31	6.67	4,081.45	1.49	560.37	0.31
	N	1,228	15	15	15	1,228	15	1,228	1,228

TABLE 14. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF RED FOX HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	146	1.00	1.00	100.0	146	1.00	146	50.0
	(SE)	145.88	-	-	-	145.88	-	145.88	50.00
	N	1,225	1	1	1	1,225	1	2	2
2	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.00	0.00
	N	1,225	-	-	-	1,225	-	2	2
3	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.00	0.00
	N	1,225	-	-	-	1,225	-	2	2
4	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.00	0.00
	N	1,225	-	-	-	1,225	-	2	2
5	ESTIMATE	146	1.00	1.00	100.0	146	1.00	146	50.0
	(SE)	145.88	-	-	-	145.88	-	145.88	50.00
	N	1,225	1	1	1	1,225	1	2	2
6	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.00	0.00
	N	1,225	-	-	-	1,225	-	2	2
	ESTIMATE	873	0.10	1.20	80.0	6,991	12.00	728	0.41
STATEWIDE	(SE)	503.69	0.12	0.49	20.00	5,893.35	9.41	324.86	0.18
	N	1,228	4	5	5	1,227	4	1,228	1,228

TABLE 15. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF GRAY FOX HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.00	-	-	-	0.0	-	0.00	0.00
	N	1,227	-	-	-	1,227	-	4	4
2	ESTIMATE	437	1.50	3.00	100.0	291	2.00	146	25.0
	(SE)	436.92	-	-	-	291.28	-	145.64	25.00
	N	1,227	1	1	1	1,227	1	4	4
3	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.00	-	-	-	0.0	-	0.0	0.00
	N	1,227	-	-	-	1,227	-	4	4
4	ESTIMATE	146	1.00	1.00	100.0	146	1.00	146	25.0
	(SE)	145.64	-	-	-	145.64	-	145.64	25.00
	N	1,227	1	1	1	1,227	1	4	4
5	ESTIMATE	146	1.00	1.00	100.0	146	1.00	146	25.0
	(SE)	145.64	-	-	-	145.64	-	145.64	25.00
	N	1,227	1	1	1	1,227	1	4	4
6	ESTIMATE	146	0.50	1.00	100.0	291	2.00	146	25.0
	(SE)	145.64	-	-	-	291.28	-	145.64	25.00
	N	1,227	1	1	1	1,227	1	4	4
	ESTIMATE	873	0.13	1.20	80.0	6694	9.2	728	0.41
STATEWIDE	(SE)	503.69	0.15	0.49	20.0	5,838.23	7.7	324.86	0.18
	N	1,228	5	5	5	1,228	5	1,228	1,228

TABLE 16. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF BOBCAT IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	292	0.02	0.67	66.7	14,039	32.00	438	21.4
	(SE)	206.22	0.02	0.33	33.33	13,181.52	29.02	252.46	11.38
	N	1,225	3	3	3	1,222	3	14	14
2	ESTIMATE	584	0.13	1.00	100.0	3,363	7.67	584	28.6
	(SE)	291.40	0.11	0.00	0.00	3,077.64	6.67	291.40	12.53
	N	1,225	3	4	4	1,222	3	14	14
3	ESTIMATE	0	-	-	-	0	-	0	0.0
	(SE)	0.0	-	-	-	0.0	-	0.00	0.00
	N	1,225	-	-	-	1,222	-	14	14
4	ESTIMATE	438	0.17	1.00	66.7	1,755	6.00	438	21.4
	(SE)	326.08	0.28	0.58	33.33	1,491.07	4.00	252.46	11.38
	N	1,225	2	3	3	1,222	2	14	14
5	ESTIMATE	146	-	1.00	100.0	0	-	146	7.1
	(SE)	145.88	-	-	-	0.0	-	145.88	7.14
	N	1,225	-	1	1	1,222	-	14	14
6	ESTIMATE	292	0.02	0.67	66.7	14,916	34.00	438	21.4
	(SE)	206.22	0.03	0.33	33.33	14,624.71	33.00	252.46	11.38
	N	1,225	3	3	3	1,222	3	14	14
STATEWIDE	ESTIMATE	2,328	0.04	0.94	82.4	34,073	21.18	2474	1.4
	(SE)	647.65	0.02	0.13	9.53	19,968.33	11.18	596.07	0.33
	N	1,228	11	17	17	1,222	11	1,228	1,228

TABLE 17. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF COYOTE HUNTING DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	5,269	0.21	2.33	86.7	20,085	10.46	2195	29.4
	(SE)	1,936.54	0.14	0.67	9.09	1,386.74	6.87	563.57	6.44
	N	1,221	13	15	15	1,210	13	51	51
2	ESTIMATE	1,317	0.23	1.29	71.4	5,760	5.57	1,024	13.7
	(SE)	787.56	0.13	0.64	18.44	3,538.95	2.92	386.26	4.87
	N	1,221	7	7	7	1,210	7	51	51
3	ESTIMATE	878.13	1.33	2.00	100.0	443	1.50	439	5.9
	(SE)	506.57	0.44	0.00	0.00	330.12	0.50	253.29	3.33
	N	1,221	2	3	3	1,210	2	51	51
4	ESTIMATE	2,195	0.44	1.50	70.0	3,988	3.00	1,464	19.6
	(SE)	1,001.80	0.26	0.52	15.30	1,811.91	0.99	461.10	5.62
	N	1,221	9	10	10	1,210	9	51	51
5	ESTIMATE	1,903	1.13	2.17	100.0	1,181	2.00	878	11.8
	(SE)	912.73	0.77	0.60	0.00	781.06	1.00	357.76	4.56
	N	1,221	4	6	6	1,210	4	51	51
6	ESTIMATE	5,269	0.15	3.60	100.0	16,688	22.60	1,464	19.6
	(SE)	2,272.68	0.12	1.12	0.00	14,822.15	19.39	461.10	5.62
	N	1,221	5	10	10	1,210	5	51	51
STATEWIDE	ESTIMATE	17753	0.21	2.09	84.4	56,618	9.14	8,440	4.7
	(SE)	3,401.33	0.08	0.20	4.80	22,193.25	3.34	1,082.20	0.61
	N	1,228	42	58	58	1,212	42	1,228	1,228

TABLE 18. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF ARCHERY DEER HUNTING IN MISSSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	6,833	0.08	1.18	59.0	75,387	13.83	5,794	18.9
	(SE)	1,615.80	0.01	0.21	7.98	18,433.74	2.54	912.61	2.74
	N	1,178	36	39	39	1,156	36	206	206
2	ESTIMATE	5,199	0.07	1.03	55.9	68,878	14.22	5,051	16.5
	(SE)	1,345.50	0.02	0.21	8.64	21,458.2	3.73	853.97	2.59
	N	1,178	32	34	34	1,156	32	206	206
3	ESTIMATE	7,725	0.11	1.63	68.8	52,680	12.89	4,754	15.5
	(SE)	2,100.19	0.03	0.34	8.33	13,342.01	2.19	829.20	2.53
	N	1,178	27	32	32	1,156	27	206	206
4	ESTIMATE	8,170	0.06	1.10	52.0	79929	12.57	7,428	24.3
	(SE)	1,985.19	0.02	0.22	7.14	16,187.54	1.71	1,028.33	2.99
	N	1,778	42	50	50	1,156	42	206	206
5	ESTIMATE	4,902.24	0.05	1.10	51.6	64,487.78	15.21	4,605	15.0
	(SE)	1,516.14	0.13	0.27	0.09	15,479.32	2.34	816.50	2.50
	N	1,178	28	31	31	1,156	28	206	206
6	ESTIMATE	1,931.18	0.05	0.65	45.0	29350	10.21	2,971	0.1
	(SE)	710.51	0.02	0.20	11.40	9,349.8	2.33	659.00	0.02
	N	1,178	19	20	20	1,156	19	206	206
STATEWIDE	ESTIMATE	39,276	0.07	1.17	58.9	378,001	13.21	33,603	19.2
	(SE)	3,973.16	0.01	0.10	3.25	38,454.85	1.02	1,988.14	1.14
	N	1,203	190	231	231	1,162	190	1,203	1,203

TABLE 19. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF ARCHERY BUCK AND DOE HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

		BUCKS				DOES			
DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE	2,823	0.03	0.49	25.6	4,010	0.05	0.69	17.6
	(SE)	1,078.8	<0.01	0.17	7.10	1,033.72	0.01	0.14	6.60
	N	1,178	36	39	39	1,178	36	39	34
2	ESTIMATE	1,040	0.01	0.21	17.6	4,160	0.06	0.82	52.9
	(SE)	444.8	<0.01	0.08	6.60	1,125.3	0.02	0.18	8.70
	N	1,178	32	34	34	1,178	32	34	34
3	ESTIMATE	2,228	0.04	0.47	31.3	5,497	0.08	1.16	62.5
	(SE)	797.7	0.01	0.15	8.30	14,24.2	0.02	0.23	8.70
	N	1,178	27	32	32	1,178	27	32	32
4	ESTIMATE	1,783	0.01	0.24	18.0	6,388	0.05	0.86	46.0
	(SE)	628.38	0.01	0.08	5.49	1,554.65	0.01	0.17	7.12
	N	1,178	42	50	50	1,178	42	50	50
5	ESTIMATE	1,337	0.01	0.29	22.6	3,565	0.04	0.77	48.4
	(SE)	534.42	0.01	0.11	7.63	1,045.72	0.01	0.18	9.12
	N	1,178	28	31	31	1,178	28	31	31
6	ESTIMATE	446	0.02	0.15	15.0	1,486	0.04	0.50	30.0
	(SE)	257.08	0.01	0.08	8.19	663.22	0.02	0.20	10.51
	N	1,178	19	20	20	1,178	19	20	20
STATEWIDE	ESTIMATE	11,346	0.02	0.34	23.4	27,929	0.05	0.83	50.2
	(SE)	1,752.02	<0.01	0.05	2.79	2,871.54	0.01	0.07	3.30
	N	1,203	190	231	231	1,203	190	231	231

TABLE 20. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF PRIMATIVE WEAPON DEER HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	9,496	0.08	0.98	53.1	89,507	9.98	9,647	21.1
	(SE)	1,892.92	0.02	0.16	6.29	19,318.49	1.75	1,172.62	2.34
	N	1,161	58	64	64	1,132	58	304	304
2	ESTIMATE	5,125	0.09	0.69	53.1	48,232	6.78	7,386	16.1
	(SE)	1,076.92	0.02	0.11	7.20	9,055.07	0.82	1,033.03	2.11
	N	1,161	46	49	49	1,132	46	304	304
3	ESTIMATE	4,974	0.08	0.89	56.8	50,087	10.13	5,577	12.2
	(SE)	1,225.62	0.02	0.17	8.26	12,754.57	1.91	902.50	1.88
	N	1,161	32	37	37	1,132	32	304	304
4	ESTIMATE	8,139	0.07	0.78	53.6	99,246	10.35	10,400	22.7
	(SE)	1,442.33	0.01	0.11	6.05	18,529.17	1.46	1,214.79	2.41
	N	1,161	62	69	69	1,132	62	304	304
5	ESTIMATE	6,632	0.08	0.85	61.5	79,768	10.98	7,838	17.1
	(SE)	1,300.08	0.01	0.12	6.81	15,435.41	1.45	1,062.75	2.16
	N	1,161	47	52	52	1,132	47	304	304
6	ESTIMATE	4,371	0.09	0.88	57.6	44,985	9.70	4,974	10.9
	(SE)	1,151.13	0.02	0.18	8.74	10,865.94	1.59	853.84	1.79
	N	1,161	30	33	33	1,132	30	304	304
STATEWIDE	ESTIMATE	45,531	0.08	0.90	59.2	416,684	9.49	50,331	28.8
	(SE)	3,386.61	0.01	0.05	2.65	34,260.55	0.61	2,284.74	1.31
	N	1,203	287	346	346	1,144	287	1,203	1,203

TABLE 21. EXPANDED STATEWIDE AND DISTRICT OF PRIMATIVE WEAPON BUCK AND DOE HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

		BUCKS				DOES			
DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE	2,261	0.02	0.23	20.3	7,235	0.06	0.75	46.9
	(SE)	653.93	0.01	0.06	5.07	1,492.89	0.02	0.13	6.29
	N	1,161	58	64	64	1,161	58	64	64
2	ESTIMATE	1,959	0.03	0.27	24.5	3,165	0.06	0.43	40.8
	(SE)	581.18	0.01	0.07	6.21	717.18	0.01	0.08	7.09
	N	1,161	46	49	49	1,161	46	49	49
3	ESTIMATE	2,412	0.04	0.43	40.5	2,562	0.04	0.46	35.1
	(SE)	635.83	0.01	0.09	8.18	779.92	0.01	0.12	7.96
	N	1,161	32	37	37	1,161	32	37	37
4	ESTIMATE	4,974	0.04	0.48	39.1	3,165	0.03	0.30	23.2
	(SE)	1,000.95	0.01	0.08	5.92	834.42	0.01	0.07	5.12
	N	1,161	62	69	69	1,161	62	69	69
5	ESTIMATE	3,165	0.03	0.40	34.6	3,467	0.04	0.44	38.5
	(SE)	778.01	0.01	0.08	6.66	805.64	0.01	0.08	6.81
	N	1,161	47	52	52	1,161	47	52	52
6	ESTIMATE	2,110	0.04	0.42	33.3	2,261	0.05	0.45	39.4
	(SE)	704.56	0.01	0.12	8.33	653.93	0.02	0.11	8.64
	N	1,161	30	33	33	1,161	30	33	33
	ESTIMATE	19,201	0.03	0.38	32.1	26,329	0.05	0.52	41.3
STATEWIDE	(SE)	1,849.48	<0.01	0.03	2.51	22,99.90	0.01	0.04	2.65
	N	1,203	287	346	346	1,203	287	346	346

TABLE 22. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF REGULAR GUN DEER HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	33659	0.09	1.66	65.4	315,291	16.58	20,258	20.5
	(SE)	4,048.70	0.01	0.15	4.19	36,424.36	1.24	1,671.46	1.61
	N	1,123	114	130	130	1,049	114	634	634
2	ESTIMATE	26,802	0.09	1.72	72.0	277,590	18.49	15,583	15.8
	(SE)	3,654.98	0.01	0.17	4.51	35,681.74	1.48	1,487.95	1.45
	N	1,123	90	100	100	1,049	90	634	634
3	ESTIMATE	19,011	0.08	1.54	73.4	193,512	17.31	12,310	12.5
	(SE)	2,809.39	0.01	0.16	5.00	28,880.64	1.59	1,336.02	1.31
	N	1,123	67	79	79	1,049	67	634	634
4	ESTIMATE	36,464	0.08	1.52	73.2	352,993	16.4	23,842	24.1
	(SE)	3,809.91	0.01	0.11	3.59	36,951.64	1.06	1,792.18	1.70
	N	1,123	129	153	153	1,049	129	634	634
5	ESTIMATE	21,504	0.08	1.31	67.6	268,415	16.59	16,362	16.6
	(SE)	2,920.91	0.01	0.13	4.59	34,823.85	1.44	1,520.96	1.48
	N	1,123	97	105	105	1,049	97	634	634
6	ESTIMATE	12,155	0.07	1.16	62.7	160,815	15.3	10,440	10.6
	(SE)	2,163.45	0.01	0.16	5.95	30,774.05	2.27	1,237.42	1.22
	N	1,123	63	67	67	1,049	63	634	634
STATEWIDE	ESTIMATE	164,958	0.08	1.59	71.6	1,599,137	16.82	103,862	59.3
	(SE)	7,065.20	<0.01	0.06	1.69	70,571.04	0.57	2,479.2	1.42
	N	1,203	582	714	714	1,071	582	1,203	1,203

TABLE 23. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF REGULAR GUN BUCK AND DOE HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

		BUCKS				DOES			
DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1	ESTIMATE	17,453	0.05	0.86	54.6	16,206	0.04	0.80	45.4
	(SE)	2,231.19	<0.01	0.08	4.38	2,324.75	0.01	0.09	4.38
	N	1,123	114	130	130	1,123	114	130	130
2	ESTIMATE	12,310	0.04	0.79	52.0	14,492.02	0.05	0.93	50.0
	(SE)	1,854.08	0.01	0.09	5.02	2,441.67	0.01	0.13	5.03
	N	1,123	90	100	100	1,123	90	100	100
3	ESTIMATE	10,285	0.04	0.84	59.5	8,726	0.04	0.71	45.6
	(SE)	1,590.77	0.01	0.09	5.56	1,644.02	0.01	0.11	5.64
	N	1,123	67	79	79	1,123	67	79	79
4	ESTIMATE	19,167	0.04	0.79	56.2	17,297	0.04	0.73	45.8
	(SE)	2,179.94	<0.01	0.07	4.02	2,333.41	0.01	0.08	4.04
	N	1,123	129	153	153	1,123	129	153	153
5	ESTIMATE	13,090	0.04	0.80	53.3	8415	0.03	0.51	38.1
	(SE)	1,945.39	0.01	0.09	4.89	1,457.48	0.01	0.08	4.76
	N	1,123	97	105	105	1,123	97	105	105
6	ESTIMATE	6,856	0.04	0.66	47.8	5,298	0.03	0.51	34.3
	(SE)	1,379.28	0.01	0.11	6.15	1,176.70	0.01	0.10	5.84
	N	1,123	63	67	67	1,123	63	67	67
STATEWIDE	ESTIMATE	86,697	0.04	0.83	55.6	78,260	0.04	0.75	45.7
	(SE)	4,133.36	<0.01	0.03	1.86	4,441.28	<0.01	0.04	1.87
	N	1,203	582	714	714	1,203	582	714	714

TABLE 24. EXPANDED STATEWIDE AD DISTRICT SUMMARIES OF SPRING TURKEY HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	3,080	0.07	0.66	40.6	4,4119	9.31	4,694	18.9
	(SE)	912.10	0.01	0.16	8.82	9,602.10	1.23	818.91	3.02
	N	1,193	32	32	32	1,182	32	169	169
2	ESTIMATE	1,320.2	0.36	0.41	36.4	32,719.0	10.52	3,227.1	13.0
	(SE)	485.20	<0.01	0.13	10.50	9,322.5	2.0	681.93	2.60
	N	1,193	21	22	22	1,182	21	169	169
3	ESTIMATE	1,907	0.09	0.76	47.1	18,950	8.0	2,494	10.1
	(SE)	731.65	0.02	0.24	12.48	5,620.75	1.34	600.72	2.32
	N	1,193	16	17	17	1,182	16	169	169
4	ESTIMATE	6014	0.08	0.82	44.0	59,220	8.89	7,334	29.6
	(SE)	1,419.66	0.02	0.16	7.09	13,333.95	1.54	1,015.68	3.52
	N	1,193	45	50	50	1,182	45	169	169
5	ESTIMATE	4,547	0.08	0.80	54.3	44,711	9.44	5,134	20.7
	(SE)	1,119.46	0.02	0.15	8.54	10,050.77	1.36	855.33	3.13
	N	1,193	32	35	35	1,182	32	169	169
6	ESTIMATE	2,200	0.08	1.15	61.5	24,724	13.92	1,907	7.7
	(SE)	865.82	0.02	0.34	14.04	9,469.25	3.68	526.21	2.06
	N	1,193	12	13	13	1,182	12	169	169
STATEWIDE	ESTIMATE	20,801.60	0.07	0.78	48.0	229,736	9.6	26,038	14.9
	(SE)	2,391.24	0.01	0.07	3.75	23,560.30	0.69	1,796.32	1.03
	N	1,203	162	179	179	1,186	162	1,203	1,203

TABLE 25. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF FALL TURKEY HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT (A)	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PECENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
2	ESTIMATE	436	0.1	0.5	50.0	4,368	5.0	873	42.9
	(SE)	251.74	0.07	0.22	22.36	2,176.20	1.57	355.57	13.73
	N	1,203	6	6	6	1,202	6	14	14
3	ESTIMATE	436	0.13	1.5	100.0	2,184	15.0	291	14.3
	(SE)	325.16	-	0.5	0.0	2,183.8	-	205.63	9.71
	N	1,203	1	2	2	1,202	1	14	14
5	ESTIMATE	436	0.13	0.5	33.3	3,348	3.83	873	42.9
	(SE)	325.16	0.1	0.34	21.08	1,798.96	1.47	355.57	13.73
	N	1,203	6	6	6	1,202	6	14	14
STATEWIDE	ESTIMATE	1,309	0.12	0.64	50.0	9,900	5.23	2,037	1.2
	(SE)	523.34	0.04	0.20	13.9	3,562.12	1.26	541.33	0.55
	N	1,203	13	14	14	1,202	13	1,203	1,203

(A) FALL TURKEY HUNTING WAS LEGAL IN DISTRICTS 2, 3, AND 5.
(B) CALCULATED AS A PERCENT OF BIG GAME LICENSE HOLDERS ONLY.

TABLE 26. EXPANDED STATEWIDE SUMMARIES OF ALL DEER, BUCK, DOE, AND TURKEY (FALL '08 AND SPRING '09) HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON

SPECIES	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENSEES (A)
DEER	ESTIMATE	249,764	0.08	2.23	75.8	2,455,774	24.0	111,572	63.8
	(SE)	10,257.66	<0.01	0.09	1.55	113,547.49	0.92	2,426.32	1.39
	N	1,203	612	767	767	1,048	612	1,203	1,203
BUCK	ESTIMATE	117,245	0.04	1.05	58.5	2,455,774	24.0	11,897	63.8
	(SE)	5,448.95	<0.01	0.04	1.78	113,457.49	0.92	2,062.63	1.39
	N	1,203	612	767	767	1,048	612	1,615	1,203
DOE	ESTIMATE	132,519	0.04	1.19	57.5	2,455,774	24.0	118,897	63.8
	(SE)	6,500.18	<0.01	0.05	1.79	113,457.49	0.92	2,062.63	1.39
	N	1,203	612	767	767	1,048	612	1,615	1,203
TURKEY	ESTIMATE	22,111	0.07	0.78	48.4	239,972	9.4	27,638	15.8
	(SE)	2,447.24	0.01	0.07	3.64	23,784	0.7	1,840.73	1.05
	N	1,203	172	190	190	1,185	172	1,203	1,203

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

TABLE 27. EXPANDED STATEWIDE AND DISTRICT SUMMARIES OF HOG HUNTING IN MISSISSIPPI DURING THE 2008-09 HUNTING SEASON.

DISTRICT	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT HUNTERS PER DISTRICT
1	ESTIMATE	4,078	1.86	5.40	60.0	2,057	3.50	728	9.3
	(SE)	3,649.33	2.47	4.91	2.45	1,512.48	2.18	325.13	3.98
	N	1,223	4	5	5	1,216	4	54	54
2	ESTIMATE	3,350	0.43	5.75	75.0	7,789	13.25	583	7.4
	(SE)	2,930.56	0.21	4.77	25.00	5,013.02	6.21	290.92	3.60
	N	1,227	4	4	4	1,216	4	54	54
3	ESTIMATE	4,952	0.33	3.09	81.8	12,491	9.44	1,602	20.4
	(SE)	2,477.12	0.24	1.30	12.20	6,612.59	4.13	481.06	5.53
	N	1,227	9	11	11	1,216	9	54	54
4	ESTIMATE	2,476	0.42	1.89	77.8	5,290	5.14	1,311	16.7
	(SE)	1,403.28	0.05	0.92	14.70	3,156.36	2.57	435.49	5.12
	N	1,227	7	9	9	1,216	7	54	54
5	ESTIMATE	3,495	0.33	2.67	88.9	8,964	8.70	1,311	16.7
	(SE)	1,683.62	0.13	0.99	11.11	4,727.32	3.47	435.49	5.12
	N	1,227	7	9	9	1,216	7	54	54
6	ESTIMATE	5,243	0.07	2.25	62.5	26,011	14.75	2,330	29.6
	(SE)	2,261.58	0.05	0.82	12.50	15,980.43	8.36	578.98	6.27
	N	1,227	12	16	16	1,216	12	54	54
STATEWIDE	ESTIMATE	23,865	0.29	2.96	74.5	62,603	9.91	8,004	4.5
	(SE)	6,131.82	0.11	0.66	5.93	18,879.37	2.62	1,055.19	0.59
	N	1,228	43	55	55	1,216	43	1,228	1,228

Summary of Responses to Opinion Questions for 2008-2009

Table 28. Percent of respondents who hunted in Mississippi during the 2008-2009 hunting season (Q1)

Response	Frequency	Percent
YES	1140	93.4
NO	81	6.6
TOTAL	1221	100.0

n missing = 42

Table 29. Percent of respondents by how many years they have been hunting (Q2). Missing values were treated as zeroes.

Years Hunted Category	Frequency	Percent
0-5	86	7.9
6 – 10	103	9.4
11 – 15	76	7.0
16 – 20	135	12.4
21 – 25	80	7.3
26 – 30	164	15.0
31 – 35	95	8.7
36 – 40	122	11.2
41 – 45	100	9.2
46 – 50	93	8.5
51 – 55	30	2.8
56 – 60	8	0.7
61 - 65	0	0.0
>65	0	0.0
TOTAL	1091	100.0

Mean years of experience = 28.5 years

Table 30. Percent of respondents by age at which they had their first hunting experience (Q3).

Response	Frequency	Percent
1-5	160	14.7
6-10	511	46.8
11-15	283	25.9
16-20	75	6.9
21-25	25	2.3
>25	37	3.4
TOTAL	1091	100.0

Mean age at first hunting experience = 10.9 years old

Table 31. Percent of respondents by how many total days they hunted (Q4). Missing values were treated as zeroes.

Response	Frequency	Percent
0	53	4.9
1-5	97	8.9
6-10	137	12.6
11-15	91	8.3
16-20	115	10.5
21-25	83	7.6
26-30	133	12.2
31-35	50	4.6
>35	332	30.4
TOTAL	1091	100.0

Mean days hunting elsewhere = 30.3 days

Table 32. Percent of respondents by how many days they hunted in Mississippi (Q4a). Missing values were treated as zeroes.

Response	Frequency	Percent
0	58	5.3
1-5	104	9.6
6-10	144	13.2
11-15	100	9.2
16-20	113	10.4
21-25	82	7.5
26-30	143	13.1
31-35	40	3.7
>35	307	28.1
TOTAL	1091	100.0

Mean days hunting in Mississippi = 28.9 days

Table 33. Percent of respondents by how many days they hunted elsewhere (Q4b). Missing values were treated as zeroes.

Response	Frequency	Percent
0	936	85.8
1-5	72	6.6
6-10	45	4.1
11-15	16	1.6
16-20	11	1.0
21-25	3	0.3
26-30	3	0.3
31-35	0	0.0
>35	4	0.4
TOTAL	1091	100.0

Mean days hunting elsewhere = 1.4 days

Table 34. Percent of respondents who accompanied a youth hunter during the 2008-09 hunting season (Q5).

Response	Frequency	Percent
YES	515	47.2
NO	576	52.8
TOTAL	1091	100.0

34a. If yes, [See Table 34] percentage of respondents that accompanied a youth hunter during each of the following 2008-09 seasons (Q6).

Hunting Season	Frequency	Percent
Youth Gun (Deer)	338	31.0
Youth Turkey	99	9.1
Youth Waterfowl	36	3.3
Regular Deer (All Deer Seasons)	423	38.8
Regular Turkey (Fall or Spring)	107	9.8
Regular Waterfowl	45	4.1

Table 35. Percentage of Mississippi resident hunters willing to purchase hunting licenses and duck stamps priced at select bid amounts. The number of hunters to respond to each bid amount can be found in the column labeled *n*. Hunters were presented bid amounts that corresponded to the type of license they purchased in the previous year (Q8, Q28).

			Willingness to Pay (%)	
License Type	n	Bid Amount ($)	Yes	No
Sportsman's	297	50	51.2	48.8
	315	75	26.7	73.3
	299	100	27.4	72.6
All Game	73	20	71.2	28.8
	80	22	65.0	35.0
	94	25	60.6	39.4
Small Game	60	16	90.0	10.0
	64	18	76.6	23.4
	61	21	65.6	34.4
Duck Stamp	116	12	81.0	19.0
	141	15	80.1	19.9
	128	20	57.8	42.2

* Surveys were sent to 2,265 sportsman's license hunters, 1,006 all game hunters, 1,008 small game hunters, and 1,128 duck stamp holders.

Table 36. Percent of respondents that observed a black bear in Mississippi between January 1, 2008 and December 31, 2008 (Q9).

Response	Frequency	Percent
YES	33	3.0
NO	1058	97.0
TOTAL	1091	100.0

36b. Number of bear sightings by type and county (Q10)

County	Solitary adult bear	Adult bear with cubs	Cub(s) only
Adams	1	0	0
Benton	1	0	0
Bolivar	1	0	0
Clarke	1	1	0
Forrest	1	0	0
Issaquena	3	2	0
Jackson	1	0	0
Lafayette	1	0	0
Lauderdale	1	0	0
Leake	1	0	0
Pearl River	1	0	0
Perry	1	0	0
Stone	1	2	1
Tishomingo	1	0	0
Tallahatchie	0	0	1
Warren	0	1	0
Washington	1	1	0
Wilkinson	0	0	1
County not reported	2	1	0
TOTAL	22	8	4

Table 37. Percent of respondents by the extent they support of oppose current or proposed deer hunting regulations (Q12)

Item	n	Strongly Oppose	Oppose	Neutral	Support	Strongly Support	Median[a]
Legalizing crossbows for all hunters during archery season	959	19.1	14.9	27.3	17.8	20.9	3
Combining the primitive and general firearms seasons into one general firearms season from Nov 15 to Jan 15	954	18.1	17.9	17.6	22.1	24.3	3
Allowing private land Deer Management Assistance Program clubs that are issued special permits to harvest extra does to do so with firearms during archery season	956	24.8	18.1	23.2	20.0	13.8	3
The current regulations on supplemental feeding of deer on private land during hunting season	954	12.7	14.3	30.6	26.3	16.2	3
Allowing deer hunters to hunt over bait that is within the hunter's view on private land	956	16.2	11.3	16.3	27.3	29.0	4
Legislation to further prevent shooting from a road	961	6.4	5.5	10.4	21.1	56.7	5
Legislation to increase fines for shooting from a road with generated funds going to law enforcement and youth programs	960	5.4	4.8	12.7	19.0	58.2	5

n missing = respondents-n
Median [a] based on scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Table 38. Average number of days quail hunters spent hunting pen-raised quail and average number of pen-raised quail they harvested during the 2008 season (Q13, Q14).

Season	Frequency	Mean	Standard Deviation
Days hunted pen-raised quail	48	1.39	3.51
Pen-raised quail harvested	44	8.78	17.54

Table 39. Percentage of dove hunters that indicated whether the following constraints made their participation in dove hunting more difficult (Q15).

Constraint	n	Yes	No	Total
Finding a suitable place to hunt dove	598	74.0	26.0	100.0
Finding an affordable place to hunt dove	575	59.7	40.3	100.0
Not understanding what is a legal dove field	575	40.9	59.1	100.0

Table 40. Average number of days for each month of dove hunting season that respondents indicated to create the "ideal" 70 day, dove hunting season in the north and south dove zones. Hunters were asked to indicate their preferred distribution of hunting days only for the zones in which they hunted in 2008-09, or had an interest in hunting in the future (Q16).

Zone	Month	Frequency	Mean	Standard Deviation
NORTH	September	179	17.21	7.70
	October	179	18.42	7.08
	November	179	6.60	7.51
	December	179	15.89	9.55
	January	179	11.88	6.28
SOUTH	September	122	17.54	11.46
	October	122	18.68	10.84
	November	122	6.18	11.38
	December	122	15.36	14.90
	January	122	12.25	9.46

Table 41. Percent of respondents by the extent they support or oppose the establishment of various dove hunting zones (Q17)

Statement	n	Strongly Oppose	Oppose	Neutral	Support	Strongly Support	Median[a]
The current division of Mississippi into North and South zones, with the South zone being the area south of HIGHWAY 84 and east of HWY 35	552	4.3	7.5	62.7	16.7	8.8	3
Changing the South dove hunting zone to the area south of HIGHWAY 26 from the Louisiana state line to Lucedale, and south of 198 and 98 from Lucedale to the Alabama state line	536	6.4	8.5	76.7	5.4	3.0	3
Eliminating the North and South dove hunting zones and returning to one statewide dove hunting zone	562	4.2	9.0	47.8	19.1	19.9	3

n missing = 1,091 - n
Median [a] based on scale where 1 = strongly oppose, 2 = oppose, 3 = neutral, 4 = support, 5 = strongly support

Table 42. Percent of respondents by the level of importance they put on being allowed to hunt dove over top-sown wheat (Q18).

Statement	n	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important	Median[a]
How important is it to you that Mississippi continues to allow dove hunting over top-sown wheat?	586	6.9	5.8	28.9	26.7	31.7	4

n missing = 505
Median [a] based on scale where 1 = strongly oppose, 2 = oppose, 3 = neutral, 4 = support, 5 = strongly support

Table 43. Average number of days respondents hunted waterfowl during the 2008-09 season on the following land types. Analysis is based on those respondents that purchased a state duck stamp only (Q19).

Land Type	Frequency	Mean	Standard Deviation
State wildlife management areas in MS	481	1.72	4.86
State owned lands (non-WMA) in MS	481	0.60	2.82
Federal public lands in MS	481	2.42	6.55
Leased private lands in MS	481	3.91	8.22
Other private lands in MS	481	1.08	4.07
Out-of-state	481	1.08	4.06
TOTAL	481	10.74	14.49

Table 44. Percent of respondents by how many of the last 5 years they indicated they had spent waterfowl hunting (n = 384) (Q20).

Response	Frequency	Percent
0	1	0.26
1	37	9.64
2	29	7.55
3	44	11.46
4	39	10.16
5	234	60.94
TOTAL	384	100.00

n missing = 97

Table 45. Percent of respondents by how they rated waterfowl compared to their other hunting activities (Q21)

Response	Frequency	Percent
Most important hunting activity	160	40.4
Second most important hunting activity	128	32.3
Third most important hunting activity	74	18.7
None of the above	34	8.6
TOTAL	396	100.0

n missing = 85

Table 46. Percentage of waterfowl hunters that indicated whether they wanted to have the option of hunting on the following holidays each year (Q22).

Holiday	n	Yes	No	Total
Thanksgiving	391	73.7	26.3	100.0
Christmas	390	70.3	29.7	100.0
New Year's Day	391	86.7	13.3	100.0

n missing = 481 - n

Table 47. Percent of respondents by the extent they support or oppose the establishment of various proposed waterfowl hunting zones (Q23).

Statement	n	Strongly Oppose	Oppose	Neutral	Support	Strongly Support	Median[a]
The idea of dividing Mississippi into North and South zones, with each having its own distinct season	390	16.4	17.2	41.3	17.2	8.0	3
Dividing Mississippi into North and South zones, with HIGHWAY 82 as the dividing line between zones	387	17.6	15.5	46.5	13.4	7.0	3

n missing = 481 - n
Median [a] based on scale where 1 = strongly oppose, 2 = oppose, 3 = neutral, 4 = support, 5 = strongly support

Table 48. Average number of days for each month of waterfowl hunting season that respondents' indicated to create the "ideal" 60 day, waterfowl hunting season in the proposed north and south waterfowl zones. Hunters were asked to indicate their preferred distribution of hunting days only for the zones in which they hunted in 2008-09, or had an interest in hunting in the future (Q24).

Zone	Month	Frequency	Mean	Standard Deviation
NORTH	October	241	0.27	2.36
	November	241	2.93	4.40
	December	241	29.0	3.46
	January	241	27.8	4.25
SOUTH	October	159	0.19	1.25
	November	159	2.79	4.48
	December	159	28.87	3.10
	January	159	28.15	3.91

Table 49. Percentage of waterfowl hunters that indicated whether the following constraints made their participation in waterfowl hunting more difficult (Q25).

Constraint	n	Yes	No	Total
Finding a suitable place to hunt waterfowl	481	51.3	48.7	100.0
Finding an affordable place to hunt waterfowl	481	48.7	51.3	100.0
Species specific seasons on waterfowl	481	27.7	72.3	100.0
Species specific bag limits on waterfowl	481	29.9	70.1	100.0

Table 50. Percent of waterfowl hunting respondents by the extent their interest in various random draw scenarios on Wildlife Management Area (Q26).

Item	n	Not at all Interested	Slightly Interested	Moderately Interested	Very Interested	Extremely Interested	Median[a]
Random draw before the season to determine a limited number of individuals who can hunt but with no restriction on where hunters can hunt	372	38.7	14.8	22.3	15.3	8.9	2
Random draw before the season to determine a limited number of individuals who can hunt AND assign hunters to an area to hunt	371	41.0	13.5	21.8	10.5	13.2	2
Random draw on the morning of the hunt that guarantees everyone a place to hunt AND determines the order in which hunters pick hunting spots	370	40.5	14.1	23.5	8.9	13.0	2
Random draw on the morning of the hunt that determines the order in which hunters pick hunting spots but with NO guarantee everyone will have a place to hunt	368	65.0	11.4	15.0	2.5	6.3	1
WMAs with permanent duck blinds	372	35.2	10.2	20.7	12.4	21.5	3

n missing = 481-n
Median [a] based on scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Table 51. Percent of respondents that purchased waterfowl stamps by the extent they support or oppose the following (Q27)

Statement	n	Strongly Oppose	Oppose	Neutral	Support	Strongly Support	Median[a]
Allowing adult hunters accompanying youths to carry firearms for dispatching wounded waterfowl during youth waterfowl hunting seasons	365	18.4	10.4	21.9	24.4	24.9	3

n missing = 481-n
Median [a] based on scale where 1 = strongly oppose, 2 = oppose, 3 = neutral, 4 = support, 5 = strongly support.

Table 52. Percent of respondents by how they rated hunting compared to their other outdoor recreation activities (such as fishing, camping, golfing, etc.) (Q29).

Response	Frequency	Percent
Most important outdoor activity	586	62.2
Second most important outdoor activity	234	24.8
Third most important outdoor activity	88	9.3
None of the above	34	3.6
TOTAL	942	100.00

n missing = 61

Table 53. Percent of respondents by their age category (Q30)

Age Category	Frequency	Percent
18-20	36	3.7
21-25	55	5.7
26-30	67	7.0
31-35	83	8.6
36-40	115	11.9
41-45	118	12.2
46-50	124	12.9
51-55	131	13.6
56-60	134	13.9
61-65	94	10.0
>65	7	0.7
TOTAL	1003	100.0

n missing = 39
Mean age of hunter = 44.8

Table 54. Percent of respondents by their gender category (Q31)

Gender Category	Frequency	Percent
MALE	885	92.0
FEMALE	77	8.0
TOTAL	962	100.0

n missing = 41

Table 55. Percent of respondents by their county of residence (Q32)

County	Frequency	Percent
ADAMS	12	1.3
ALCORN	10	1.1
AMITE	8	0.8
ATTALA	7	0.7
BENTON	2	0.2
BOLIVAR	9	1.0
CALHOUN	9	1.0
CARROLL	8	0.8
CHICKASAW	5	0.5
CHOCTAW	2	0.2
CLAIBORNE	3	0.3
CLARKE	10	1.1
CLAY	8	0.8
COAHOMA	8	0.8
COPIAH	8	0.8
COVINGTON	8	0.8
DESOTO	37	3.9
FORREST	15	1.6
FRANKLIN	3	0.3
GEORGE	16	1.7
GREENE	5	0.5
GRENADA	10	1.1
HANCOCK	6	0.6

HARRISON	25	2.6
HINDS	41	4.3
HOLMES	5	0.5
HUMPHREYS	3	0.3
ISSAQUENA	1	0.1
ITAWAMBA	17	1.8
JACKSON	29	3.1
JASPER	8	0.8
JEFFERSON	2	0.2
JEFFERSON DAVIS	4	0.4
JONES	25	2.6
KEMPER	7	0.7
LAFAYETTE	12	1.3
LAMAR	18	1.9
LAUDERDALE	25	2.6
LAWRENCE	5	0.5
LEAKE	10	1.1
LEE	28	3.0
LEFLORE	8	0.8
LINCOLN	17	1.8
LOWNDES	18	1.9
MADISON	40	4.2
MARION	10	1.1
MARSHALL	8	0.8
MONROE	17	1.8
MONTGOMERY	7	0.7
NESHOBA	7	0.7
NEWTON	9	1.0
NOXUBEE	3	0.3
OKTIBBEHA	12	1.3
PANOLA	19	2.0
PEARL RIVER	17	1.8
PERRY	6	0.6
PIKE	8	0.8
PONTOTOC	20	2.1

PRENTISS	10	1.1
QUITMAN	1	0.1
RANKIN	59	6.2
SCOTT	14	1.5
SHARKEY	5	0.5
SIMPSON	12	1.3
SMITH	7	0.7
STONE	9	1.0
SUNFLOWER	7	0.7
TALLAHATCHIE	1	0.1
TATE	7	0.7
TIPPAH	5	0.5
TISHOMINGO	11	1.2
TUNICA	2	0.2
UNION	11	1.2
WALTHALL	4	0.4
WARREN	18	1.9
WASHINGTON	13	1.4
WAYNE	12	1.3
WEBSTER	11	1.2
WILKINSON	2	0.2
WINSTON	7	0.7
YALOBUSHA	6	0.6
YAZOO	14	1.5
TOTAL	948	100.0

n missing = 55

Table 56. Percent of respondents by their approximate annual household income category before taxes (Q33)

Income Category	Frequency	Percent
Under 10,000	29	3.3
10,000-19,000	48	5.4
20,000-29,000	66	7.5
30,000-39,000	103	11.7
40,000-49,000	87	9.9
50,000-59,000	93	10.5
60,000-69,000	100	11.3
70,000-79,000	70	7.9
80,000-89,000	66	7.5
90,000-99,000	54	6.1
100,000 and above	167	18.9
TOTAL	883	100.0

n missing = 120

Table 57. Percent of respondents by their highest completed level of education (Q34)

Education Category	Frequency	Percent
Elementary	19	2.0
High School	385	40.3
College	455	47.7
Graduate School	95	10.0
TOTAL	954	100.0

n missing = 49

Table 58. Percent of respondents by their race (Q35)

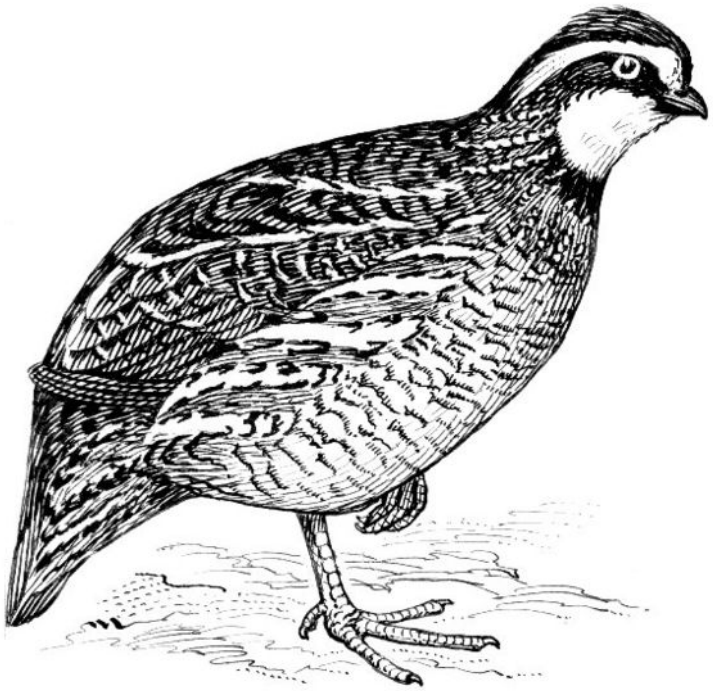
Race Category	Frequency	Percent
WHITE OR ANGLO	912	94.9
BLACK OR AFRICAN AMERICAN	37	3.9
LATINO OR HISPANIC	0	0.0
NATIVE AMERICAN OR ALASKAN NATIVE	5	0.5
ASIAN OR PACIFIC ISLANDER	0	0.0
OTHER	7	0.7
TOTAL	961	100.0

n missing = 42

Appendix A

Questionnaire: 2009 Survey of Mississippi Resident Hunters

2009 Survey of Mississippi Resident Hunters



Conducted for the
Mississippi Department of Wildlife, Fisheries & Parks
by the
Human Dimensions & Conservation Law Enforcement Laboratory
Forest & Wildlife Research Center
Mississippi State University

In the following questions, please tell us about your hunting activity and experience. The information you provide will remain strictly confidential and you will not be identified with your answers.

1. Did you hunt in Mississippi during the 2008-2009 hunting season (September 1, 2008-May 3, 2009)?

   1 YES
   2 NO – (***If NO, please skip ahead to Question #29 on Page 10)***

2. How many years have you been hunting? _____ YEARS

3. At what age did you have your first hunting experience?

   _____ AGE OF FIRST HUNTING EXPERIENCE

4. How many days did you go hunting during the 2008-2009 hunting season?

   _____ DAYS HUNTED IN MISSISSIPPI

   _____ DAYS HUNTED ELSEWHERE

5. Did you accompany one or more youth hunters during the 2008-09 hunting season?

   1 YES – If YES, how many youth hunters did you accompany? _____

   2 NO – (***If NO, please skip ahead to Question #7 on Page 2)***

6. If YES to Question #5, in which of the following seasons did you take a youth hunting? ***(Please circle all that apply.)***

   1 Youth Gun (Deer) season
   2 Youth Turkey season
   3 Youth Waterfowl season

   4 Regular Deer seasons (Archery, Primitive, or Gun)
   5 Regular Turkey seasons (Fall 08 or Spring 09)
   6 Regular Waterfowl season

Questions #7-8 deal with your willingness to pay for possible increases in the cost of hunting licenses* to *generate additional money for wildlife management and research.

7. What type of resident hunting license did you purchase for the 2008-09 hunting season (September 1, 2008-May 3, 2009)?

    1 SMALL GAME HUNTING ($13.00)
    2 ALL GAME HUNTING / FRESHWATER FISHING ($17.00)
    3 SPORTSMAN LICENSE ($32.00)

8. For the type of license you purchased in 2008-09 (see Question #7), would you be willing to pay $_____ for that same hunting license in future seasons?

    1 YES
    2 NO

Black bear sightings in Mississippi have been on the rise in recent years as bears disperse into the state from populations in Arkansas, Louisiana, and Alabama. Questions #9-10 deal with possible sightings of black bear in Mississippi by you in 2008.

9. Did you observe a black bear in Mississippi between January 1, 2008 and December 31, 2008?

    1 YES
    2 NO – (***If NO, please skip ahead to Question #11)***

10. If YES to Question #9, please fill in the blocks below to indicate how many black bear sightings you had in 2008 matching each description listed below and the county in which the sighting occurred:

Type of sighting	Number of sightings	County(ies) in which sighting(s) occurred
Solitary adult bear		
Adult bear with cubs		
Cub(s) only		

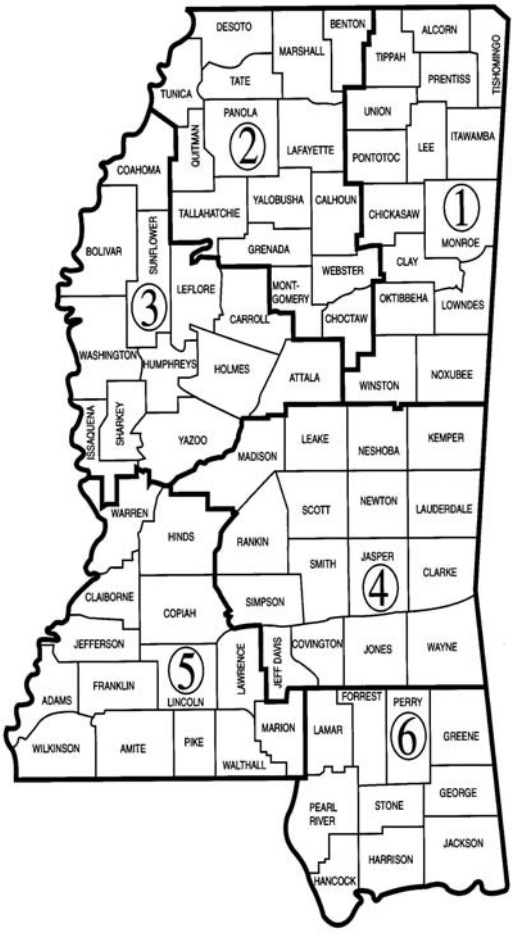
11. For the **2008-2009** hunting season (September 1, 2008-May 3, 2009), please fill in the blocks below for each game, furbearer, or predatory species you hunted during the hunting season (even if you were unsuccessful). If you hunted more than one species on a particular day, count a day for each species you hunted. Report only game, furbearer, or predatory species taken by you in Mississippi.

Species Sought	Total harvested in Mississippi in 2008-09 season	Days hunted species in Mississippi in 2008-09 season	Area Hunted Most
Dove			
Quail			
Woodcock			
Rabbit			
Squirrel			
Raccoon			

	Bucks	Does		
Deer (Archery)				
Deer (Primitive Weapon)				
Deer (Gun)				
Turkey (Fall 2008)				
Turkey (Spring 2009)				

	Mallard	Wood	Other		
Ducks					
Geese					
Red fox					
Gray fox					
Bobcat					
Coyote					
Feral Hog					

DETERMINE AREA (1-6) HUNTED MOST FROM THE MAP BELOW



If you hunted white-tailed deer in the 2008-09 season or have an interest in deer management in Mississippi, please answer Question #12. If not, please go to Question #13.

12. Please indicate your level of support for the following current or proposed deer hunting regulations:

		Strongly Oppose	Oppose	Neutral	Support	Strongly Support
a)	Legalizing crossbows for all hunters during archery season	1	2	3	4	5
b)	Combining the primitive and general firearms seasons into one general firearms season from Nov 15 to Jan 15	1	2	3	4	5
c)	Allowing private land Deer Management Assistance Program clubs that are issued special permits to harvest extra does to do so with firearms during archery season	1	2	3	4	5
d)	The current regulations on supplemental feeding of deer on private land during hunting season	1	2	3	4	5
e)	Allowing deer hunters to hunt over bait that is within the hunter's view on private land	1	2	3	4	5
f)	Legislation to further prevent shooting from a road	1	2	3	4	5
g)	Legislation to increase fines for shooting from a road with generated funds going to law enforcement and youth programs	1	2	3	4	5

If you hunted quail in the 2008-09 season, please answer Question #13-14. If not, please go to Question #15.

13. To the best of your knowledge, of the days you spent quail hunting in the 2008-09 season (see Question #11) how many days were spent hunting pen-raised quail?

_____ # DAYS HUNTING PEN-RAISED QUAIL

14. To the best of your knowledge, of the quail you harvested in the 2008-09 season (see Question #11) how many were pen-raised quail?

_____ # PEN-RAISED QUAIL HARVESTED

If you hunted dove last season or have an interest in dove management in Mississippi, please answer Questions #15-18. If not, please go to Question #19.

15. Do the following make your participation in dove hunting in Mississippi more difficult?

a) Finding a suitable place to hunt dove ..... YES NO
b) Finding an affordable place to hunt dove ..... YES NO
c) Not understanding what is a legal dove field ..... YES NO

16. Currently, the dove hunting season is broken up into 3 seasons over the course of five months (September – January), with separate seasons in North and South zones separated by HIGHWAYS 84 and 35. If you had the opportunity to set the number of days for each month, how many days would you assign to each in **YOUR** ideal dove hunting season under the current 70 day season framework? Only fill out your ideal seasons for the zones in which you dove hunted in 2008-09, or have an interest in dove hunting in the future.

NORTH ZONE

2008-09 DOVE SEASON	*YOUR IDEAL DOVE SEASON*
SEPTEMBER: 21 DAYS	SEPTEMBER: _____ DAYS
OCTOBER: 29 DAYS	OCTOBER: _____ DAYS
NOVEMBER: 9 DAYS	NOVEMBER: _____ DAYS
DECEMBER: 0 DAYS	DECEMBER: _____ DAYS
JANUARY: 11 DAYS	JANUARY: _____ DAYS
TOTAL: 70 DAYS	TOTAL: 70 DAYS

SOUTH ZONE

2008-09 DOVE SEASON	*YOUR IDEAL DOVE SEASON*
SEPTEMBER: 14 DAYS	SEPTEMBER: _____ DAYS
OCTOBER: 16 DAYS	OCTOBER: _____ DAYS
NOVEMBER: 0 DAYS	NOVEMBER: _____ DAYS
DECEMBER: 25 DAYS	DECEMBER: _____ DAYS
JANUARY: 15 DAYS	JANUARY: _____ DAYS
TOTAL: 70 DAYS	TOTAL: 70 DAYS

17. For the past few seasons, MDWFP has gone from setting dove hunting seasons on a statewide basis to setting seasons by North and South zones separated by HIGHWAYS 84 and 35. Please indicate whether you support or oppose:

	Strongly Oppose	Oppose	Neutral	Support	Strongly Support
a) The current division of Mississippi into North and South zones, with the South zone being the area south of HIGHWAY 84 and east of HWY 35	1	2	3	4	5
b) Changing the South dove hunting zone to the area south of HIGHWAY 26 from the Louisiana state line to Lucedale, and south of 198 and 98 from Lucedale to the Alabama state line	1	2	3	4	5
c) Eliminating the North and South dove hunting zones and returning to one statewide dove hunting zone	1	2	3	4	5

	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important
18. How important it is to you that Mississippi continues to allow dove hunting over top-sown wheat?	1	2	3	4	5

If you hunted waterfowl last season or have an interest in waterfowl management in Mississippi, please answer Questions #19-28. If not, please go to Question #29 on Page 10.

19. How many days did you hunt waterfowl in Mississippi during the 2008-09 season on the following land types:

_____ STATE WILDLIFE MANAGEMENT AREAS (WMAs) in MISSISSIPPI

_____ STATE OWNED LANDS (OTHER THAN WMAs) in MISSISSIPPI

_____ FEDERAL PUBLIC LANDS in MISSISSIPPI

_____ LEASED PRIVATE LANDS in MISSISSIPPI

_____ OTHER PRIVATE LANDS in MISSISSIPPI

_____ OUT-OF-STATE

_____

_____ **TOTAL DAYS WATERFOWL HUNTING**

20. In how many of the last five years have you hunted waterfowl?

_____ YEARS

21. Compared to your other hunting activities, would you rate waterfowl hunting as: (***Please circle only one answer***)

1 YOUR MOST IMPORTANT HUNTING ACTIVITY
2 YOUR SECOND MOST IMPORTANT HUNTING ACTIVITY
3 YOUR THIRD MOST IMPORTANT HUNTING ACTIVITY
4 NONE OF THE ABOVE

Currently waterfowl season is open in Mississippi on Thanksgiving, Christmas, and New Year's Day some years, but not others because of the existing season structure and efforts to maximize the number of weekend days available for hunting each year. In years when waterfowl season has not been open on these holidays, some hunters have told MDWFP that they would have liked to hunt on those days.

22. Do you want to have the option to hunt waterfowl on the following holidays each year?

a) Thanksgiving..... YES NO
b) Christmas..... YES NO
c) New Year's Day..... YES NO

23. In recent years, Mississippi has had only one waterfowl hunting season statewide. Some waterfowl hunters have suggested that Mississippi should be divided into "North" and "South" zones, with each having its own distinct waterfowl hunting season. Please indicate whether you support or oppose:

		Strongly Oppose	Oppose	Neutral	Support	Strongly Support
a)	The idea of dividing Mississippi into North and South zones, with each having its own distinct season.....	1	2	3	4	5
b)	Dividing Mississippi into North and South zones, with HIGHWAY 82 as the dividing line between zones.....	1	2	3	4	5

c) If you support dividing Mississippi into North and South zones, but do not support the use of HWY 82 as the boundary, what road(s) would you suggest be set as the boundary instead?

_____ YOUR PROPOSED BOUNDARY

24. Currently, federal guidelines allow each state to set duck hunting seasons between the months of October and January as long as the total number of hunting days does not exceed 60 days. If you had the opportunity to set the number of duck hunting days for each month, how many days would you assign to each month in **YOUR** ideal duck hunting season under the current 60 day season framework? Assume the state was divided into North and South zones separated by HIGHWAYS 82. Only fill out your ideal seasons for the zones in which you would have an interest in duck hunting in the future.

NORTH ZONE

2008-09 STATEWIDE DUCK SEASON		***YOUR IDEALNORTH ZONE DUCK SEASON***	
OCTOBER:	0 DAYS	OCTOBER:	_____ DAYS
NOVEMBER:	4 DAYS	NOVEMBER:	_____ DAYS
DECEMBER:	31 DAYS	DECEMBER:	_____ DAYS
JANUARY:	25 DAYS	JANUARY:	_____ DAYS
TOTAL:	60 DAYS	TOTAL:	60 DAYS

SOUTH ZONE

2008-09 STATEWIDE DUCK SEASON		***YOUR IDEAL SOUTH ZONE DUCK SEASON***	
OCTOBER:	0 DAYS	OCTOBER:	_____ DAYS
NOVEMBER:	4 DAYS	NOVEMBER:	_____ DAYS
DECEMBER:	31 DAYS	DECEMBER:	_____ DAYS
JANUARY:	25 DAYS	JANUARY:	_____ DAYS
TOTAL:	60 DAYS	TOTAL:	60 DAYS

25. Do the following make your participation in waterfowl hunting in Mississippi more difficult?

a) Finding a suitable place to hunt waterfowl..... YES NO
b) Finding an affordable place to hunt waterfowl..... YES NO

c) Species specific seasons on waterfowl ..... YES NO
d) Species specific bag limits on waterfowl ..... YES NO

26. Currently, MDWFP provides opportunities to hunt waterfowl on select Wildlife Management Areas (WMA). Access to hunting on WMAs ranges from open access where anyone can hunt at any time during the season to limited access situations where access to the WMA is determined by a random draw. Please indicate your level of interest in hunting waterfowl on WMAs under the following access situations:

		Not at all Interested	Slightly Interested	Moderately Interested	Very Interested	Extremely Interested
a)	Random draw before the season to determine a limited number of individuals who can hunt but with no restriction on where hunters can hunt	1	2	3	4	5
b)	Random draw before the season to determine a limited number of individuals who can hunt AND assigning hunters to an area to hunt	1	2	3	4	5
c)	Random draw on the morning of the hunt that guarantees everyone a place to hunt AND determines the order in which hunters pick hunting spots	1	2	3	4	5
d)	Random draw on the morning of the hunt that determines the order in which hunters pick hunting spots but with NO guarantee everyone will have a place to hunt	1	2	3	4	5
e)	WMA's with permanent duck blinds	1	2	3	4	5

27. Please indicate your level of support for:

		Strongly Oppose	Oppose	Neutral	Support	Strongly Support
a)	Allowing adult hunters accompanying youths to carry firearms for dispatching wounded waterfowl during youth waterfowl hunting seasons	1	2	3	4	5

Mississippi currently requires that resident waterfowl hunters purchase a $10 waterfowl stamp to hunt waterfowl in the state. Questions #28 deals with the cost of a waterfowl stamp, and your willingness to pay for a possible increase in the cost of a stamp to generate additional money for waterfowl management and research.

28. Would you be willing to pay $_____ for your Mississippi waterfowl stamp if the extra amount went exclusively to funding additional waterfowl management and research?

    1 YES
    2 NO

The following questions will help us to know more about hunters. The information you provide will remain strictly confidential and you will not be identified with your answers.

29. Compared to your other outdoor recreation activities (such as fishing, camping, golfing, etc…) would you rate hunting as: (***Please circle only one answer***)

    1 YOUR MOST IMPORTANT OUTDOOR ACTIVITY
    2 YOUR SECOND MOST IMPORTANT OUTDOOR ACTIVITY
    3 YOUR THIRD MOST IMPORTANT OUTDOOR ACTIVITY
    4 NONE OF THE ABOVE

30. What is your age? _____ YEARS

31. Are you? 1 MALE
    2 FEMALE

32. In what county do you reside? _____ COUNTY

33. What is your approximate annual household income before taxes?

1	UNDER $10,000	7	$60,000 - $69,999
2	$10,000 - $19,999	8	$70,000 - $79,999
3	$20,000 - $29,999	9	$80,000 - $89,999
4	$30,000 - $39,999	10	$90,000 - $99,999
5	$40,000 - $49,999	11	$100,000 and ABOVE
6	$50,000 - $59,999		

34. What is your highest completed level of education? ***(Please circle only one answer)***

1 2 3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18 19 20 21 22+
ELEMENTARY	HIGH SCHOOL	COLLEGE	GRADUATE SCHOOL

35. Would you best describe yourself as:

    1 WHITE OR ANGLO
    2 BLACK OR AFRICAN AMERICAN
    3 LATINO OR HISPANIC
    4 NATIVE AMERICAN OR ALASKAN NATIVE
    5 ASIAN OR PACIFIC ISLANDER
    6 OTHER ***(Please Specify: _____)***

36. Was this survey completed by the person to whom it was addressed?

1 YES
2 NO

Is there anything else you would like to share with us about hunting in Mississippi?

Your contribution of time to this study is greatly appreciated. Please return your completed questionnaire in the postage paid business reply envelope as soon as possible. Thank You.

Mississippi State University
Department of Wildlife and Fisheries
Mississippi State, MS 39762-9690
6/09

Appendix B

Survey correspondence with hunters for the 2005 Survey of Mississippi Resident Hunters

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Department of Wildlife and Fisheries
Box 9690
Mississippi State, MS 39762-9690

July 1, 2009

John Doe
123 Buck Drive
Fawn, MS 30759

Dear John:

I am writing to ask for your help in a study of Mississippi hunters. Each year I conduct the enclosed annual hunter harvest and attitude survey for the Wildlife Bureau of the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP). We conduct this study to determine the characteristics of hunters, the amount of game harvested in Mississippi during the previous hunting season, and hunters attitudes toward important wildlife issues.

The enclosed survey is designed to tell us about your game harvest in the 2008-2009 (September 1, 2008 – May 3, 2009) Mississippi hunting season, your opinions on wildlife management in Mississippi, and your willingness-to-pay for hunting licenses. To give you an idea of how your information will be used, on the back of this letter we have provided results on hunter effort and harvest in Mississippi from the information licensed hunters provided in last year's survey.

You are one of a small number of license holders from the 2008-09 hunting season selected to participate in this study. It is important that you and no one else complete the questionnaire. Your response is vital to insuring the information we collect is representative of all Mississippi hunters, and we want to hear from you whether you hunt often or just occasionally. All responses will be strictly confidential, and you will not be identified with your answers. Your answers will be grouped with other respondents in a non-identifiable manner. The survey has an identification number for mailing purposes only. This is so we can remove your name from the mailing list once we receive it.

After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope as soon as possible. For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at (662) 325-3994. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153.

Thank you in advance for your cooperation. We hope you are enjoying your summer thus far and that your 2009-10 hunting season will be a safe and successful one.

Sincerely,

Dr. Kevin M. Hunt
Associate Professor & Director
Human Dimensions & Conservation Law Enforcement Laboratory

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Department of Wildlife and Fisheries
Box 9690
Mississippi State, MS 39762-9690

July 22, 2009

John Doe
123 Buck Drive
Fawn, MS 30759

Dear John:

About three weeks ago, we sent you a survey of Mississippi hunters. As of today, we have not yet received your completed questionnaire. If you have recently returned your survey, please accept our thanks. The comments of people who have already returned their questionnaires included a wide variety of answers. However, the success and accuracy of our study depends on you and the others who have not yet responded. We ask for your help in making sure our results are representative of all hunters in Mississippi.

In case you misplaced your survey, we've enclosed another. The survey is designed to tell us about your general hunting activity and game harvest during the 2008-2009 hunting season, and your opinions on various wildlife management issues currently being considered by MDWFP. Study results will help MDWFP in wildlife management plans. Although the survey is completely voluntary, we hope that you will take the 15-30 minutes necessary to provide your input and be a part of the wildlife management process. If you did not hunt in the 2008-2009 hunting season, please write **DID NOT HUNT** on the front of the questionnaire and mail it back to us so we can take your name off the mailing list. If you hunted in 2008-09, please complete the harvest questions. To give you an idea of how your harvest information will be used, we have included on the back side of this letter the results on hunter harvest in Mississippi from the information licensed hunters provided in last year's survey.

All responses will be strictly confidential, and you will not be identified with your answers. Your answers will be grouped with other respondents in a non-identifiable manner. The survey has an identification number for mailing purposes only. This is so we can remove your name from the mailing list once it is received. After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope as soon as possible. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153. Thank you in advance for your cooperation and good luck during the upcoming hunting season.

Sincerely,

Dr. Kevin M. Hunt
Associate Professor & Director
Human Dimensions & Conservation Law Enforcement Laboratory

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Department of Wildlife and Fisheries
Box 9690
Mississippi State, MS 39762-9690

August 12, 2009

John Doe
123 Buck Drive
Fawn, MS 30759

Dear John:

During the last two months, I have sent you several mailings involving a survey on Mississippi hunters. As of today, I have not yet received your completed questionnaire. If you have recently returned your survey, please accept my thanks.

The Mississippi Department of Wildlife, Fisheries, and Parks value your perspective of wildlife management and have funded this study to get your opinion on wildlife management issues currently facing the agency. The success and accuracy of our study depends on you and the others who have not yet responded. If for some reason you prefer not to respond, please let me know by returning the blank questionnaire in the enclosed business reply envelope. Or, if you did not hunt in the 2008-2009 hunting season, please write **DID NOT HUNT** on the front of the questionnaire and mail it back to us so we can take your name off the mailing list. To give you an idea of how your harvest information will be used, we have included on the back side of this letter the results on hunter harvest in Mississippi from the information licensed hunters provided in last year's survey.

If you choose to respond, the survey should take you no longer than 15-30 minutes to complete. Your responses will be strictly confidential, and you will not be identified with your answers. The survey has an identification number for mailing purposes only. Your answers will be grouped with other respondents in a non-identifiable manner, and there is no way for anyone outside of my laboratory to determine your identity. I will destroy the name and address list at the end of the study.

After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope as soon as possible. If you did not hunt, please write that on the front cover and send it back to me so I can take your name off of the list. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153. For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at (662) 325-3994. Thank you in advance for your cooperation and good luck during the upcoming hunting season.

Sincerely,

Kevin M. Hunt

Dr. Kevin M. Hunt
Associate Professor & Director
Human Dimensions & Conservation Law Enforcement Laboratory

Appendix C

Mail Survey Methodology Study

Over the last decade, there has been a general decline in the response rates for mail surveys of hunters and anglers in Mississippi, including the annual Mississippi hunter survey, despite the use of mail survey methods like Dillman's Taylored Design Method (Dillman 2007) which call for multiple mailings to maximize final response rates. These declines in response rates have motivated survey researchers to seek out additional ways of increasing an individual's likelihood of responding to the survey. This year we attempted to evaluate the effect of two changes to the survey methods we have been using for the last 10 years. The first change was to print the questionnaires on a light blue, rather than white, paper with the goal of making the questionnaire easier on respondent eyes by reducing the amount of glare reflected from the page. Human dimensions researchers at Cornell have reported as much as an eight percent increase in response rates when printing surveys on light blue paper (personnel communication). The second change we evaluated was the inclusion of the previous year's harvest table in the survey packet, printed on the back of the cover letter. Dillman (2007) suggests that one way to improve response rates is to inform individuals of the benefits of the information they provide, and providing a copy of the harvest estimates made from the previous years survey is one way to do that. We evaluated these potential changes in survey methods by dividing the survey sample (N = 6,279) between two treatments: 1) questionnaire color, and 2) inclusion of harvest table (Table C1). Logistic regression was used to evaluate the effects these two treatments, and residency status, had on final response rates. Residency status was added to the analysis because non-residents have consistently tended to have higher response rates on the hunter survey than resident hunters, and the variables inclusion would thus improve the models fit and explain additional variation in the data. Individuals that had non-deliverable addresses, refusals, or become deceased were eliminated from the final analysis, giving us a final sample of 5,796.

A breakdown of survey respondents by treatment group can be found in table C2. The distribution of respondents indicates that individuals that received a questionnaire printed on blue paper were more likely to respond than those that received one printed on white paper. Also,

individuals that did not receive a harvest table were more likely to respond than those that did receive a harvest table. Logistic regression found that questionnaire color ($\chi^2 = 8.969$; $p = 0.003$) and non-resident status ($\chi^2 = 24.649$; $p < 0.001$) were positively related of survey response, while inclusion of the harvest table ($\chi^2 = 50.122$; $p < 0.001$) was negatively related to survey response (Table C3). Odds ratios indicated that an individual receiving a questionnaire printed on light blue paper was 1.17 times more likely to respond than one receiving a white questionnaire, those receiving a harvest table were 0.77 times more likely to than those not receiving one, and non-residents were 1.49 times more likely to respond than residents.

With the exception of the influence of the harvest table, the results of the analysis meet our expectations. Printing the surveys on light blue paper had a positive effect on survey response, likely because it reduced the amount of glare reflected off the page making the questionnaire easier to read. Colored paper costs about $0.20 more per ream which would increase total printing costs for the hunter survey by approximately $20, a worthwhile investment given the expected increase in survey response rate. Thus, future hunter surveys will be printed on light blue paper, and response rates will be monitored to see if the expected increase in response rate is met. Conversely, inclusion of the previous year's harvest table did not have the desired effect on response rate. We are not entirely sure why including the harvest table had a negative effect on response rate, but we expect that it may have served as more of a distraction to the survey recipient than as an encouragement for completing the survey. The information presented in the harvest table is extensive, and thus by increasing the amount the time needed to review the survey packet, may have reduced an individual's likelihood of completing the questionnaire. However, this is merely conjecture on our part. Given the negative effect of the harvest table on response rates, we have no immediate plans to include them in future mailings of the hunter survey.

Table C1. Distribution of treatment types in mail survey methodology study. Treatments included the color of paper on which the questionnaires were printed (blue or white), and whether or not the previous years harvest table was printed on back of the cover letter accompanying the questionnaire.

Questionnaire color	Harvest Table		Total
	Yes	No	
White	1,500	1,628	3,128
Blue	1,650	1,501	3,151
Total	3,150	3,129	6,279

Table C2. Frequency of respondents (%) by treatment in mail survey methodology study. Treatments included the color of paper on which the questionnaires were printed (blue or white), and whether or not the previous years harvest table was printed on back of the cover letter accompanying the questionnaire.

Questionnaire color	Harvest Table		Total
	Yes	No	
White	606 (22.0%)	706 (25.6%)	1,312 (47.5%)
Blue	683 (24.8%)	764 (27.7%)	1,447 (52.5%)
Total	1,289 (46.7%)	1,470 (53.3%)	2,759 (100.0%)

Table C3. Logistic regression table identifying significant variables, and odds ratios for survey response treatments. Variables included in the model are questionnaire color (white = 0, blue =1), inclusion of the 2007 harvest table in the survey packet (yes = 1, no = 0), and residency status (resident = 0, non-resident = 1). Odds ratios are the number of times more likely an individual was to respond to the survey if they had a score of 1 on a given variable (e.g., individuals receiving blue questionnaires were 1.17 times more likely to respond than those receiving white questionnaires).

Variable	Estimate	SE	Wald χ^2	p-value	Odds Ratio
Intercept	0.026	0.028	0.816	0.367	
Color	0.079	0.027	8.969	0.003	1.17
Harvest table	-0.132	0.027	24.649	< 0.001	0.77
Residency	0.201	0.028	50.122	< 0.001	1.49
Model χ^2	81.353			< 0.001	
N	5,796				