MISSISSIPPI MAIL SURVEY OF GAME HARVEST AND HUNTER EFFORT FOR 1991-92

by

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INTRODUCTION

The purpose of the game harvest survey is to establish yearly indices of harvest and hunter effort for each game species. These indices provide trend data which allows 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) uses a mail survey to obtain trend data on total harvest, average daily kill, average seasonal harvest, and total man-days hunted for each game species. 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 hunter harvest and effort.

The primary objective of the mail survey for the 1991-92 hunting season was to obtain a reliable set of <u>statewide</u> indices for each game species in Mississippi. The secondary objective was to provide <u>regional</u> indices for these species. The survey is also used as a tool to monitor hunter attitudes and perceptions on specific issues. The results of the survey are used to help guide future management decisions.

METHODS

The sampling frame for the survey consisted of resident holders of a Type 00 - Sportsman, Type 01 - All Game Hunting and Fishing, Type 02 - Small Game Hunting or Type 05 - Small Game Hunting and Fishing license purchased during the 1991-92 license year.

A 2.2 percent sample of these hunting license buyers was selected from the 176,165 licenses processed from July 1, 1991 - January 31, 1992. An approximate random sample was achieved by selecting license sales stubs whose license number ended in predetermined but randomly selected sets of terminal digits between 000 and 999. A different set of digits was selected for each of Types 01, 02, and 05 licenses. An optical scanning device (S6000 Burroughs Document Processor) was used to mechanically make the stub selections. Sampling was discontinued at the end of January to expedite mailing the survey immediately after the close of the February hunting season.

An initial sample of 4,361 Type 01, 02, and 05 license holders was selected. Since approximately 1.24 percent of the selected license stubs lacked complete names and/or addresses, the 2.2 percent sample of stubs resulted in a 2.17 percent or 4,307 usable licenses. Names and addresses were keypunched for each usable stub sampled.

A sample of Sportsman license holders comparable to the other types was achieved as follows. For each of the past 11 years (80/81 - 90/91) the total sales of Types 01, 02, and

05 were divided into the total sales of these types for July - January of each year. Based on an average of 11 years 90.46 percent of the predicted sales had been accounted for by the end of January of each year. Therefore the 2.17 percent sample of license holders in January would be about a 1.963 percent (0.9046 x 0.0217 x 100) sample of total sales expected through June 1992.

Because of the computerized and renewable aspects of Sportsman's licenses (Type 00), virtually all 91-92 Sportsman's license holders are accounted for by the end of January. Sales were 38,929 by February 1992. To achieve a sample of Sportsman license holders comparable to Types 01, 02, and 05 a computer generated random sample of 765 hunters or 1.963 of the total sales was selected. Both stub and Sportsman's license samples were combined into a single computer file for mailing purposes.

The initial mailing consisting of the questionnaire (Figure 1), a cover letter (Figure 2) and a No. 9 postage-paid business reply envelope was mailed in a No. 10 window envelope on March 9, 1990 to the 5,064 sampled hunters. Three weeks after the initial mailing reminder post cards (Figure 3) were mailed to 3,234 sampled hunters who had not returned their questionnaire. The final mailing composed of the identical questionnaire, cover letter (Figure 4) and business reply envelope was mailed three weeks after the reminder post card mailing to the 2,690 nonrespondents. First mailing questionnaires were given identification numbers from 100,001 to 105,064 while the final mailing was given a 200,000 numbering sequence to differentiate responses between mailings. Questionnaires returned five weeks after the final mailing were not considered in the analyses.

Questionnaire design and mailing procedures were outlined followed as by Steffen

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

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

The 1991-92 survey obtained information about two license years. Turkey harvest indices were partially calculated from hunters who hunted during the spring 1991 turkey season which was the 90/91 license year. Indices for other species were determined for the 91-92 season alone. Because of prior irregularities in the license sales structure, only surveys beginning with the 1982-83 season had well defined sampling frames with a known number of license buyers (Steffen 1981, 1983 a, b). Therefore spring 1991 turkey indices were calculated based on the respondents who also purchased a big game license during the previous July 1, 1990 - June 30, 1991 fiscal year (Questionnaire Part B, question # 9).

Estimates and standard errors of total turkey and man-days of effort were calculated as a linear combination of the spring 1991 estimates plus the fall 1991 estimates. The computer programs were altered to reflect these changes. All calculations follow Steffen (1981).

RESULTS

Based on all three mailings, 489 (9.6%) of the 5,064 questionnaires were returned as non-deliverable by the post office. Therefore, 4,575 individuals were assumed to have been contacted to participate in the survey. Of these, 2,896 (63.3%) returned their questionnaires for possible analysis and 1,679 (36.6%) were nonresponses. Based on those returned questionnaires, 2,843 were answered and usable to some extent, 49 were returned after the acceptance deadline (5 weeks after the final mailing) and only 4 were considered completely useless.

Statewide expansions were calculated based on the 227,684 total hunting licenses sold and accounted for by the end of June 1992. There existed 227,684 individuals licensed to hunt small game and 213,856 (Types 00 +01) of these license holders also were eligible to pursue big game (deer and turkey) during the 1991-92 hunting seasons. The spring, 1991 turkey hunting estimates were based on the 218,827 big game license holders accounted for in the 1990-91 license sales totals.

Based on the 2,843 usable responses, 90.0 ± 0.5 (SE) percent of all resident license holders actually participated in a hunting activity during the 1989-90 hunting season. Therefore an estimated 227,684 \pm 1,252 (SE) licenses actually utilized their license for hunting purposes.

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 for all game species included in the survey. Table 2 provides the expanded statewide estimates of total harvest and the variability of these (standard errors and 95 percent confidence limits) for all game species surveyed.

Tables 3-8 summarize small game hunting on a statewide and regional basis.

Waterfowl hunting is summarized in Tables 9-11. Tables 12-15 summarize fox (red and gray), bobcat and coyote hunting. Statewide and regional summaries of deer (buck and doe data from the archery, primitive weapon and gun seasons) and turkey hunting are provided in Tables 16-24. Statewide totals will not necessarily equal the sum of the regional totals. All figures were calculated independently and were the best statistical estimates available.

Table 25 sumarizes the reponses to the opinion questions in Part B.

DISCUSSION

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

Response and nonresponse biases continue to exist with the survey as previously noted by Steffen (1981). Therefore discretion must be used when considering these data as absolute estimates. Assuming the biases remain consistent over time, the best uses of these data are as indices for trend determinations.

As previously recommended by Steffen (1981), the annual survey should be continued with a sample of 3,000-4,000 sportsmen. Periodically (e.g., every 5 years) a survey of 11,000 - 12,000 hunters should be conducted to provide more precise estimates on a regional basis. The next large sample survey should be conducted after the 1993-94 hunting seasons. To avoid changes in biases, attention to the consistency of survey methodology should be continued in future surveys.

ACKNOWLEDGEMENTS

This survey could not have been accomplished without the conscientious efforts of many MDWFP personnel from all divisions. Special thanks goes to Amber Kyle and Louise Shackleford for scanning, data entry and anything else that needed to be done. Appreciation is extended to L. Blackwell, C. Blakney, P. McDaniel, C. Thornhill, S. Norwood, S. Jordan, and D. Kincaid for technical expertise and B. Abernathy, B. Ellison, T. Shropshire, D. Smith, L. J. Smith, R. Spencer, and J. Tindall with help with mailings.

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SUMMARY OF THE 1991-92 MISSISSIPPI MAIL SURVEY OF GAME HARVEST BASED ON LICENSE HOLDERS. 227,684 SMALL GAME TABLE 1.

SPECIES	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	SEASONAL DAYS HUNTING	TOTAL	PERCENT OF TOTAL LICENSEES(A
#	1.756.385	6.25	21.74	92.4	278,307	3.48	80, 166	35.2
COLATI	4	2.16	11.91	76.7	101,888	5.59	18,580	8.
Tananara	6.967	66	2.47	79.4	6,652	2.59	2,723	1.2
700000 A	464 267		7.85	81.9	349,390	6.02	59,264	26.0
COLIDDE	1.365.943	2.12	12.56	8.06	627,628	5.86	108,276	47.6
NOUS PAGE	126.536	0.68	7.86	92.8	174,684	11.80	15,697	8.B
ALL DUCKS	160,468	•	9.70	85.9	105,375	6.60	16,418	7.2
MALLARD	69,274	0.65	4.20	57.1				
WOOD DUCK		0.51	3,28	0. 0.				
OTHER DUCKS	36,359	0.31	2.19	33.2				
GEESE	4,004	0.64	2.94	88.2	680'9	4.75	•	9. O
RED FOX	4,245	0.27	1,38	1.18	14,516	0.48	2,963	e: -
GRAY FOX	6, 167	0.31	2.92	69.2	19,081	10.35	2,082	6 .0
BOBCAT	7,608	0.21	1.48	88.5	30,862	• 23	•	2.1
COYOTE	42,045	0.14	2.17	85.3	244,898	16.30		7.9
TOTAL DEER	277,714	0.080		56.3	3,248,982	18.46	177,323	82.9
BUCK	197,006	0.058	1.1	8.8				
D0E	80,874	0.022	9.48	26.8				
ARCHERY DEER	33,940	0.054	0.63	36.7	571,260	11.02	53, 268	24.9
BUCK	16,656	0.028	0.31	23.5				
90	17,363	0.028	0.32	25.1				
PRIMITIVE DEER	34,809	0.103	0.59	40.0	316,266	5.47	59, 160	27.7
BUCK	15,253	0.044	0.25	21.4				
300		0.058	0.33	27.1				
GUN DEER	208,266	0.084	1.21	54.1	2,353,310	13.88	171,038	80.0
BUCK	164,408	0.068	96.0	48.8	V 2000 - 51117 CANADA SOMEON CO.			
8	43,858	0.016	0.26	8.				
TOTAL TURKEY	42,167	0.045	6.08	51.2	368,682	21.39	•	•
SPRING 1991	39,535	0.101	0.93	51.7	359,975	8.90	•	0.
EAL 1 4991	2.632	0.147	1.03	43.8	8,708	9. 8.	2,553	

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

EXPANDED STATEWIDE ESTIMATES OF TOTAL HARVEST (AND THE VARIABILITY OF THE ESTIMATES) FOR ALL GAME SPECIES IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON. TABLE

		STAND	ARD ERROR	95% CONFIDENCE	CE INTERVAL	
SPECIES	TOTAL HARVEST	SE	AS % UF TOTAL(A)	LOWER LIMIT	UPPER LIMIT	
DOVE	1,756,385	84.751	4.8	1,586,883	1,925,887	
QUAIL	220,474	35,482	16.1	149,510	291,438	
WOODCOCK	6,967	1,824	26.2	3,318	10,615	
RABBIT	464,267	37,635		388,997	539, 537	
SQUIRREL	1,365,943	55,432	7.	1,255,079	1,476,807	
RACCOON	126, 536	18,015	16.2	905'08	162,586	
ALL DUCKS	160, 468	19,834	12.4	120,800	200, 136	
MALLARD	69,274	10,447	15.1	48,380	90, 168	
WOOD DUCK	55, 118	7,086	12.9	40,946	69,290	
OTHER DUCKS	36, 359	6,883	18.9	22,593	50, 125	
GEESE	4,004	1,522	38.0	096	7,048	
RED FOX	4,245	1,081	25.5	2,083	6,407	
GRAY FOX	6, 167	2,059	33.4	2,049	10,285	
BOBCAT	7,608	1,826	24.0	3,956	11,260	
соуоте	42,045	4,226	10.1	33,593	50,487	
TOTAL DEER	277,714	8,877	3.2	259,960	295,468	
BUCK	197,006	8,261	3.5	184,484	209,528	
30	80,874	4,420	ıo G	72,034	89,714	
ARCHERY DEER	33,940	2,403	7.1	29, 134	38,746	
BUCK	16,656	1,426	80.	13,804	19,508	The second of th
8	17,363	1,395	0.8	14,573	20,153	
PRIMITIVE DEER	34,909	2,324	6.7	30,261	39,557	
BUCK	15, 253	1,349	80	12,555	17,951	
DO E	19,641	1,443	7.3	18,755	22,527	
GUN DEER	208,266	6,865	e. e	194,536	221,996	
BUCK	164,408	5, 166	3.1	154,076	174,740	
906	43,856	3,665	8.4 1.8	36,526	51,186	
TOTAL TURKEY	42, 167	3,108	7.4	35,951	48,383	
SPRING 1891	39,535	2,930	7.4	33,675	45,395	
EALL 1001	2.632	1.036	39.4	299	4,704	

9 EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF DOVE HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON TOTAL HUNTERS 14, 542 (1,046) 992 3.96 (0.58) 3.27 (0.25) 180 3.32 (0.17) 461 (0.44 (0.44 (0.44 47,307 (4,956) 2,836 68,949 (6,188) 2,830 (23,899 22,835) 830) 18, 183 (3, 557) 123, 255 (8, 307) 2, 830 TOTAL 96.5 (2.5) 57 96.6 (2.4) 58 90 18.28 18.28 27.21 (6.38) 57 (2.28) (5.28) 20.55 (1.222) 458 6.37 (0.58) 6.86 6.986 57 5.5 5.85 5.85 5.85 6.54 232 232 301, 593 (35, 538) 2, 828 124,872 (33,316) 2,828 (14, 523) 2, 828 448,444 (43,646) 2,828 (57, 176) (57, 176) 2, 828 STATISTIC ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) STATEWIDE TABLE 3. REGION

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REGION	STATISTIC	TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	SEASONAL DAYS HUNTING	TOTAL	PERCENT HUNTERS PER REGION
	ESTIMATE (SE) N	31,496 (13,266) 2,841	1.88 (0.60) 37	10.62 (4.18)	(7):3 (7:8)	16,773 (4,567) (2,837	(1.25) (37)	2 954 (484) 231	(15.0 (2.4) 231
	ESTIMATE (SE)	(27, 093) 2, 841	(6, 44) (122)	12.40 (2.51)	(3:7) (3:7)	53,450 (8,871) 2,837	(0:77) (122	9 934 (873) 231	(3.3) 231
	ESTIMATE (SE)	(2, 927 (2, 230) (2, 230) (3, 230)	(6:76) (6:76)	(2:44) 10	60.0 (16.3)	1,926 2,837	2:40 (0:54) 10	(250 (253) (231)	(1.3) 231
	ESTIMATE (SE)	44, 319 (17, 740) 2, 841	(0,77) 34	15. (5.82) 35. 35.	80.0 (6,9) 35	18,699 (4,857) 2,837	6.85 (1.365 34	2 804 (471) 231	15.2 23.4)
ď	ESTIMATE (SE) N	0,0,4 80,0,8 80,0,8 80,0,4,1	1.64 (0.47) 23	8.63 (2.83) 24)	80.0 (8:2) 2 5	10, 112 (2, 930) 2, 837	5.48 (1.13) (23)	2 003 (399) 231	10.8 (2.0) 231
									PERCENT OF LICENSES
STATEWIDE	ESTIMATE (SE) N	220, 474 (35, 482) 2, 842	2.16 (0.29) 483	(1.91) (1.77)	76.7 (2.8) 232	(01,888 (11,433) 2,838	(0.52) 237	18, 580 (1, 169)	80) 80) 8.018

. 6 EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF WOODCOCK HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON 240 389 664 664 212) 34) 4. (2 (0.58) TOTAL Mandays 68.7 (16.7) 25.0 0.05.0 0.04 **9**0 **9**0 **9**0 **9**0 **9**0 85.7 (14.3) (0.68) (0.63) (0.58 33 33 (0.27) 0.46 0.23 8 1 281 2 (599) 2 843 STATISTIC ESTIMATE (SE) N STATEWIDE TABLE 5. REGION

HUNTING SEASON. MISSISSIPPI DURING THE 1991-92 RABBIT HUNTING IN 9 SUMMARIES STATEWIDE AND REGIONAL EXPANDED 9 TABLE

PERCENT HUNTERS	18.1 (1.4) 722	35.7 (1:8) 722	9.3 (1:1) 722	25.9 (1.8) 722	10.9 (1.2) 722	PERCENT OF LICENSEES 26.0 2,843
g m	. — : : : : :		Ü	~~		EFO RC.
TOTAL	10 558 (901) 722	20,794 (1,234) (1,722	5 400 (852) 722	15,071 (1,065) 722	6,367 (706) 722	58 264 2,844 2,843
SEASONAL DAYS HUNTING	(5.67) (128	6.32 (0.69) 253	(5:71) (6:71)	5.52 (0.60) 183	8.19 (1.63) 77	00.02 7.988)
TOTAL	53,558 (8,291) 2,810	129, 480 (16, 132) 2, 810	28,007 (5,177) 2,810	81,918 (10,678) 2,810	51,128 (11,626) 2,810	348,380 (23,808) 2,823
PERCENT SUCCESSFUL HUNTERS	88.5 86.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8	(25 (25:55 (25:55	83.6 (4:6) 67	(8 12. 18.8 7	86.1 (3.9) 79	81:8 740
AVERAGE SEASONAL HARVEST	(2:23) 131	(6.98 (0.79) 257	(1:54 (1:92) 67	7.19 (1,04)	5.85 (0.82) 78	(0.188 7.388 7.349
AVERAGE DAILY KILL	(0.31) 128	(0, 13) 252	(0.35) (6.35)	(0.15) 182	0.70 0.14)	(01.82 9.089 9.738)
TOTAL	106,301 (25,192) 2,823	144,611 (18,408) 2,823	(62, 345 (12, 738) 2, 823	107, 995 (17, 402) 2, 823	37 (6, 262 2, 859 823	464, 267 (37, 635) 2, 840
STATISTIC	ESTIMATE (SE) N	ESTIMATE (SE)	ESTIMATE (SE) N	ESTIMATE (SE) N	ESTIMATE (SE) N	ESTIWATE (SE)
REGION	-			•	ດ	STATEWIDE

REGION	STATISTIC	TOTAL Harvest	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MANDAYS	AVERAGE SEASONAL DAYS HUNT ING	TOTAL	PERCENT HUNTERS PER REGION
i le : le : le : es le : es le : es	ESTIMATE N	218,126 (21,381) 2,811	(0:17)	(0.86) 240	92.5 (1.7) 240	102, 686 (12, 658) 2, 796	(0:58 2:58 2:58	18,405 (1,198) 1,325	18.1 1,325
	ESTIMATE (SE) N	528,428 (37,995) 2,811	(0.14) 530	(0.72) 539	90.2 (1.3) 542	278,253 (24,079) 2,796	(0:50) 532	43,823 (1,582) 1,325	40.9 (114) 1,325
	ESTIMATE (SE) N	157,540 (21,168) 2,811	(0,25) 124	(1:59) (1:59)	92.9 (2.3) (2.8	55,211 (6,845) 2,796	(6:42 (25)	10,188 (887) 1,325	1 (0) 5 325 525
	ESTIMATE (SE) N	338,003 (31,371) 2,811	(0,14) 308	13.29 (1.01) 314	9. 0.1.8 8.08	134 (11,568 2,796	(0:34 308 308 (0:35	25, 469 (1, 353) 1, 325	23.8 (1:2) 3255)
	ESTIMATE (SE)	123 16,521 2,818 8	(0:27 (0:24)	14.95 (1.43) 102	90.2 (3.0) 102	53,582 (7,763) 2,796	6.58 (0.70)	8 247 (802) 1,325	7.7 (0.7) 1,325
STATEWIDE	ESTIMATE	. 1 (365, 94, 332)	(0.09)	(2.58 (0.48)	88 60 60	627, 628 (29, 568)	(OS) (228 (358 (358 (358 (358 (358)	108 (22, 27 (133)	PERCENT OF TOTAL LICENSEES 47.60 (0.9)

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TABLE 8.	EXPANDED STATEWIDE AND REGIONAL SUMM	E AND REGIONA	ARIES	OF RACCOON HI	HUNTING IN MISS	MISSISSIPPI DURING	NG THE 1991-92	HUNTING	SEASON.
REGION	STATISTIC	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	PERCENT HUNTERS PER REGION
	ESTIMATE (SE) N	.36 23,48 23,28 38,23 38,23	(0.29) 34)	13. 64. 3.03. 3.03.	100 (00:00 35(0)	32,055 (8,985) 2,827	(2:64) 34	2 808 (472) 191	(2.8) 191
	ESTIMATE (SE) N	37,065 (7,732) 2,838	(0.59 70)	(1:00) (1:00) 76	(3,1) 76	(13,765) 2,827	10.00 (2:15) 70	6 097 (690) 191	86. 86. 86. 86.
	ESTINATE (SE) N	(8,902) 2,838)	(0.34) 188)	(3.58) (3.58)	89.5 (7:2)	(4,280) 2,827	(2:30) 18)	1,524 (349) 191	(28 18:2)
	ESTIMATE (SE) N	2,40 4,70 8,80 0,00 0,00 0,00 0,00 0,00 0,00 0	00 44.0 00 00 00	8 11 (1,70)	94.7 (3.7)	55, 169 (26, 063) 2, 827	e. 8. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6	8 049 (481) 191	(2.9) (2.9)
ហៈ	ESTIMATE (SE) N	(22, 702) (22, 845) (835) (835)	(0.20) 22 22)	4.17 (1.30) 23)	91.3 (0.6) (0.6)	18,685 (9,717) 2,827	(10 (10 (10 (10 (10 (10 (10 (10 (10 (10	1 845 (383) 181	72.0 (2.4) 181 181 PERCENT OF
STATEWIDE	ESTIMATE N	128, 536 (18, 536) 2, 843	(0. 98 (0. 12) 440)	7.88 (1.80) 196	62. -0.88 -0.88	(32, 423) 22, 831	(2:03) (84)	15.6897 (1.082) 2.843)	LICENSEES (6:59)
N						•		•	

PERCENT OF TOTAL LICENSEES 32.7 (33.3) 185 12.0 12.0 1893 ALL DUCK HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON TOTAL 5 217 (640) 199 766 375 99 86. 88. 89.30 80.00 6739 199 (0.65 (0.65 (0.65 9.36 2.58 2.58 2.58 1.84 230 222 (0.76) (0.76) 73 32, 297 (5, 188) 2, 834 (25,668 22,55 83,55 45,55 838 838 838 4 (6, 483) 2, 834 TOTAL PERCENT SUCCESSFUL HUNTERS 87.7 (3.9) 73 83.1 (4.7) 65 യയയ 87 AVERAGE SEASONAL HARVEST (2.38) 72 3.88 0.4 0.73 0.23 EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF AVERAGE DAILY KILL (0.45) 15 1.20 (0.14) 64 0.86 (0.24) (0.03 22) (19, 834) 2, 842 79.641 (16.419) 2.836 (7; 803) 2, 836 (4.689) 2.836 7,065 (1,959) 2,836 (5, 250) 2, 836 TOTAL HARVEST STATISTIC ESTIMATE (SE) ESTIMATE (SE) N ESTIMATE (SE) ESTIMATE (SE) N ESTIMATE (SE) ESTIMATE (SE) N STATEWIDE TABLE 9. REGION Ω

23. (10,4) (1	CHAIRMAN AND AND AND AND AND AND AND AND AND A	
10. 22 (1. 23) 10. 22 (1. 23) 10. 23 (2. 23)	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	「「「はないのできないというです」というできない。 でんかい かんかい かんしゅうしゅう
	19:447) 10:45 (0:05) 10:45 (0:57) 12:55 (0:57) 15:55 (0:57) 15:55 (0:57) 15:55 (0:57) 15:55 (0:57) 15:55 (0:57)	STATEWIDE ESTINATE
	(0.28) (0.28) (0.28) (0.28) (0.28) (0.28) (0.28) (0.28) (0.28) (1.23) (1.23)	ES (SEX)
NEG S	2 (8 9 9) (8 9 9) (8 9 9) (8 9 9 9) (8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	ESTEMATE
(0.20 0.20 150)	E (1.883) (0.57) (1.31) (5.0) (2.883) (0.70) (1.383) (1.31) (1.31) (2.838) (0.70) (1.383) (1.31)	SE) (SE)
(O.10 (O.10) (10.480 0.41 2.54 (6.2) (0.380 0.14) (0.18) (0.73) (6.2) (6.2) (0.14) (0.173) (6.2) (2 ESTIMATE
(0.45) (0.77) (0.73) (0.77)	77.511 (0.30) (1.30) (2.300) (2.300) (3.400) (3.400) (3.400) (3.400) (3.72) (4.72)	N (SE)
VERAGE SUCCESSIUL TOTAL AVERAGE AVERAGE PERCENT ANDREST KILLY SEASONAL SUCCESSIUL PUNTERSUCCESSIUL	AVERAGE AVERAGE SEASONS SUCCESSFULT HAVEST AVERAGE SEASONS SUCCESSFULT HAVEST AVERAGE SEASONS SUCCESSFULT HAVEST	REGION(1) STATISTIC
OTHER DUCKS	LLARDS	

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(12.8) 168) 31. 12.03 16.03 ၀ဝ<u>ိ</u> ၀၀ ၀၀**့** EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF GOOSE HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON TOTAL ဝဝ်ဖွ (77:8 (14:7) 0.0 0.0 0.0 0.0 80 00 00 00 00 00 4.5 2.20 5.00 8.00 0.34 0.21) -0 88 (0.77) (0.77) 2.84200 320 (253) 2,842 TOTAL HARVEST STATISTIC ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) ESTIMATE (SE) N STATEWIDE TABLE 11. REGION

56.8 373) ಕಾ ಕ್ರ EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF RED FOX HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON (0.96) (0.96) -0 -0 86 **2** 7.83 7.80 80 80 22, 855 839 839 839 14,516 (5,261) 2,839 86 66 66 (20:2) 85.7 (7.8) 21 **8**0 **0**0 **0**0 **8**.-0.0 0.00 0.00 0.00 0.00 00 80 80 80 80 STATISTIC ESTIMATE (SE) ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) N TABLE 12. STATEWIDE REGION

6 (9.9) 26) 26.9 (8.9) 26) (6.4 **26** GRAY FOX HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON TOTAL HUNTERS (212) 26) 139 26 26 26 (2.73) 23 4. 88 21.86 (6.50) 12, 266 (5, 733) 2, 840 1,684 1,250) 2,840 TOTAL MANDAYS 71.4 (18.4) 90 00 00 00 00 00 63.6 (15.2) 80 00 00 00 00 00 00 00 00 00 93 93 93 93 93 00.33 333 333 (0.82) 26) AVERAGE SEASONAL HARVEST -0 88, 4.2 8.0 8.0 8.0 8.0 (3.71) (3.71) (0.94) EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF 00.25 2.25 2.25 2.25 0.31 (0.11) 279 0.0 8.0 8.0 7.0 (0.39 100 100 100 0.95 0.97) ÷... 2,242 (1,359) 2,843 2.8433 TOTAL HARVEST ESTIMATE (SE) N STATISTIC ESTIMATE (SE) ESTIMATE (SE) N ESTIMATE (SE) ESTIMATE (SE) N ESTIMATE (SE) N STATEWIDE TABLE 13. REGION

6 EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF BOBCAT HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON 19,610 (6,735) (28.9) 4) 86 66 0.48 (0.20) 0. 0. 15 20 20 20 20 STATISTIC ESTIMATE (SE) N ESTIMATE (SE) N TABLE 14. STATEWIDE REGION

P PERCENT OF TOTAL LICENSEES 22.5 22.5 22.5 22.53 22.53 22.53 COYOTE HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON. TOTAL 2277 2277 222 907 222 222 8 255 (799) 222 (375) 222) 8. 3. . 3. . 3. . 3. . 3. . (19.73 (19.76) 30 25.38 (12.09) 88) 4.32 892) (4.67 (1.11) 42 244, 898 (62, 138) 2, 804 16,484 (9,374) 2,804) (52,011) 2,804 (4, 469) 2, 804 82,418 32,223 2,804 2,858 8048) TOTAL 85.24 8.45.3 (82 (65.9 355) 81.8 8.4 22 84.0 5.2 50) 87.4 1033) (0.50 357) AVERAGE SEASONAL HARVEST (0.35) 50 EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF AVERAGE DAILY KILL 0.0 30<u>1</u>0 30<u>1</u>0 0.0 0.0 0.0 0.0 0.0 0.0 00.2 0.13 83) 0.19 (0.07) 89 00 4224 600 (1,012) 2,841 (1,809 2,841 472 802 402 402 402 402 402 402 403 (42,045 2,226) 843 19,394 (2,815) 2,841 9 938 2 019) 841 TOTAL STATISTIC ESTIMATE (SE) N STATEWIDE 1111111111 TABLE 15. REGION

LICENSEES (A) EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ARCHERY DEER HUNTING IN MISSISSIPPI DURING THE 1991-92 HUNTING SEASON. (0.80) 247 (0.85) 200, 272 (16, 947) 2, 692 146,808 (15,767) 2,692 ဗ္တ ၁ ၁ ၁ 34.0 (6.6 (5.0 0.56 (0.08) (0.071 88 (0.030) 0.047 (0.010) 52 0.055 (0.007) STATISTIC ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) N ESTIMATE (SE) N TABLE 16. REGION

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

STATEWIDE

EXPANDED STATEWIDE AND REGIONAL SUMMARIES OF ARCHERY BUCK AND DOE HUNTING IN MISSISSIPPI DURING THE 1981-92 HUNTING SEASON. TABLE 17.

	1 1 1 1 1 1 1 1 1	1 1 1		BUCKS					DOES	S		
REGION	STATISTIC	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	ZOS ZOS	ERCENT CESSFUL UNTERS	HARVEST	AVERAGE DAILY KILL		SEASONAL SEASONAL HARVEST	1 1 1	PERCENT SUCCESSFUL HUNTERS
	ESTIMATE (SE)	2 (444 2 ,713	(0.024) 111	0.27 (0.05) 113		23 - 4.0 - 4.0)	2 (589 2,713	0.027 (0.005)	- <u>0</u> 5.7	0.29 1.06 1.13		64. 0.00 0.00 0.00
a	ESTIMATE (SE) N	5,754 (853) 2,713	0.024 (0.003) 247	0.28 258 258		20 · 9 25 · 5 25 · 5	5 676 2 713	0.026 (0.003)	<u> </u>	0.28 (0.03) 258		22 : 5 (25.6) 25.8
	ESTIMATE (SE) N	2 (703) 2,713	0.034 (0.007) 88	00 4.00 00 00 00		26.7 (4.7) 90	3,311 (637) 2,713	.	037 006) 88	0.0) 47.00 908 0.00		34.4 (5.0) 90
. 4	ESTIMATE (SE)	4 178 (722) 2 713	0.028 (0.004) 150	0.34 0.05)		26.6 (3.6) 154	4 (178) 2 (705)	00 200 1	027 004) 150	(0:34 154)		26.0 (3.5) 154
ď	ESTIMATE (SE)	2 (88) 4407 6704 6704	(0,023 52)	(0.23 (0.67)		6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00	- (100 (1002) 1002 (1002)	00.00 0.00.00 400.00 4.00.00	22.024 22.03	(0.25 53 53		(50.8 (5.8) 53
STATEWIDE	ESTIMATE (SE)	18, 656 (1, 428) 2, 722	0.026 (0.002) 8822	00.03 678 1882)		6.78 6.78	17, 363 (1, 395) 2, 722	00 8002 8002 8023	2228 2228 8024	(0.32 (0.02) 678		25.1 (1.7) (678

STATEMINE FXPANDED 48 TABLE

					11 11 11 11 11 11 11 11 11 11 11 11 11				
REGION	:	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	PERCENT HUNTERS PER REGION
된 일 음	ESTIMATE (SE) N	5 045 2,713		0 0.55 121 121	42. 42.5 22.5 22.5	50,506 (5,679) 2,693	5.48 (0.38) 116	9 610 (850) 746	16.4 (1.4) 746
~	ESTIMATE (SE) N	8, 671 (1,068) 2,713	0.074 (0.008) 260	(0.04) 2684)	23. 26.35 67.85	104,347 (7,531) 2,693	(0.21) 261	(1,222) 746	35. 74.0 8
	ESTIMATE (SE)	8 592 (1,442) 2,713	(0,023) 1133)	(0.83 1.13 1.13	53.0 (4.9)	50,508 (\$,421) 2,693	(5. 63 (1.31)	9.2.16 (834) 746	(15.7 (748
	ESTIMATE (SE) N	9,617 (1,181) 2,713	0.107 (0.013) 184	(0.00 (0.00 (0.00 (0.00)	(3.5) 189	83,54 (8,566) 2,683	(5:72 (8:22 (8:42)	8.7. 7.0887 7.0884 7.088	25.3 (1:6) 746
in	ESTIMATE (SE) N	2 (712) 2 (712)	0.094 (0.023) 50	00. 0.139 189	(6) (9) (5)	25 (4.2 (8.55 (8.55 (8.55 (8.55 (8.55)	6.36 (0.68 (0.68	4 017 (557) 746	8.00) 7468)
									PERCENT OF TOTAL
STATEWIDE	ESTIMATE (SE) N	34.909 (2.324) 2.720	0. 103 (0. 006) 955	(0.59 751	40.0 (1:8) 753	316, 266 (13, 660) 2, 698	5.47 (0.16) 729	59, 160 (1,834) 2,722	27.7 (0.9) 2.722

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

HUNTING IN MISSISSIPPI 8 AND BUCK PRIMITIVE WEAPON AND REGIONAL SUMMARIES OF HUNTING SEASON. EXPANDED STATEWIDE DURING THE 1991-92 TABLE 19

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		: : : : : : : : : : :	BUCKS				DOES	
REGION	STATISTIC	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
: : : : : : :	ESTIMATE (SE)	2 (286) 2,713	0.042 (0.008)	00.24 124 121	23. 13.80 12.80	2 757 (489) 2,715	0.052 (0.008) 116	0.09 122 122	2,000 0,000 0,000 0,000
	ESTIMATE (SE) N	4 (020 (723) 2,713	0.032 (0.005) 260	0. 18 (0.03) 266	(2.3) 267	4 647 (667) 2,715	0.042 (0.006) 261	00.22 267	(20 26.4 56.4
	ESTIMATE (SE) N	4 099 (823) 2,713	0.079 (0.014) 113	0.09 1.08 1.75 1.75	32.5 (4.3)	4,490 (763) 2,715	0.086 (0.012) 113	0.48 (0.07) 117	36.8 (4.5)
0 *	ESTIMATE (SE)	3 390 (581) 2,713	0.038 (0.007) 184	(0, 23 189	19.6 12.9 18.9	6,223 2,715	0.069 0.009 184	(0.42 (0.05) 189	(3.4) (189
	ESTIMATE (SE) N	2. (3.15) 2. 713	0.038 50.138	(0: <u>07</u>)	. 55 . 55 . 55 . 55 . 55 . 55 . 55 . 55	1 (412) 2 , 7 138	(0:057 66) 66)	00 8-1-8 10-1-8	23:5 (6:5)
STATEWIDE	ESTIMATE SE)	(15, 253 (1, 349) 2, 720	00.00 4400.00 4400.00	(0.02) (0.02)	(1.5) (7.53)	19,841 (1,443) 2,722	0.058 957)	(0.33 (0,62)	27.1 (753)

MISSISSIM HUNTING IN DEER SUN AND REGIONAL SUMMARIES OF REGULAR HUNTING SEASON. EXPANDED STATEWIDE DURING THE 1991-92 . 50 TABLE

REGION	STATISTIC	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	PERCENT HUNTERS
- 12. - 12.	ESTIMATE (SE) N	30, 929 (2, 692) 2, 669	00 00.08 303 303 84	1.22 (0.09) 3.15	55.4 (2.8) 316	353, 320 (24, 678) 2, 593	14.09 (0.63) 304	25, 263 (1, 335) 2, 130	14.8 (0.8) 2 130
N	ESTIMATE (SE) N	87, 738 (5, 187) 2, 669	0.086 (0.004) 848	1:24 (0:07) 881	(1:7) (8:6) 886	942,598 (35,523) 2,593	(3:41 (0:34) 852	70, 832 (1, 946) 2, 130	2 (41 5 130 130
	ESTIMATE N N	31, 650 (3, 486) 2, 669	0.084 (0.009) 270	1.42 (0.13) 278	(2.9) (2.9)	328, 908 (22, 638) 2, 593	(6,58) (270)	22, 225 (1, 262) 2, 130	(3.1 (6.7) 2.130
	ESTIMATE (SE)	(3, 253) 2, 668	(0.081 477 477	(0,07) 497	(27.1 (29.2)	571,465 (31,465 2,583	(0:53) 477)	39,733 (1,609) 2,130	23.3 (0.9) 2.130
ഗ	ESTIMATE (SE)	8,894 (1,370) 2,669	0.053 (0.007) 145	0.73 (0,10) 153	38.6 (3,9) 153	165 (16,993) 2,593	13.81 (0).88 145 (35).	12 232 (960) 2,130	2, 130 2, 130
									PERCENT OF TOTAL LICENSEES(A)
STATEWIDE	ESTIMATE (SE) N	208,266 (6,865) 2,716	0.084 (0.002) 2,309	(0.02) 2,174 174	2,177	2,353,310 (45,089) 2,631	(0, 23) 2,086	171,038 (1,641) 2,722	2, 722 (0, 80 722 (0, 80
(A) CALCUL	(A) CALCULATED AS A PERCENT OF BIG GAME LICER	T OF BIG GAN	SE	HOLDERS ONLY.					

AND DOE HUNTING IN MISSISSIPPI BUCK S REGULAR AND REGIONAL SUMMARIES OF HUNTING SEASON. EXPANDED STATEWIDE DURING THE 1991-92 TABLE 21.

ESTIMATE 24, 038 (0.005) ESTIMATE 24, 038 (0.005) ESTIMATE 25, 569 (0.008) ESTIMATE 25, 569 (0.004) ESTIMATE 164, 408 (0.005)	化环烷酸医环烷酸 医甲状状腺			3	BUCKS						
ESTIMATE (2.227) (0.065) (0.94) (48.1) (8.876) (0.019) (0.23) (0.23) (1.28) (1.2674) (0.019) (0.23) (0.29) (1.28) (1.268) (0.002) (0.29) (1.28) (1.268) (0.002) (0.29) (1.28) (1.268) (0.002) (0.29) (1.28) (1.268) (0.002) (0.002) (0.002) (0.28) (0.002) (0.29) (0.28) (0.002) (0.00	NO19	STATISTIC	TOTAL	AVERAGE DAILY KILL	SEAS	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	4.
ESTIMATE (3, 608) (0.069) (0.04) (1.7) (20, 554) (0.017) (0.04) (0.04) (1.7) (2.619) (0.017) (0.04) (0.04) (1.14) (2.619) (0.002) (0.04) (2.619) (0.002) (0.04) (2.619	t: 1 1 1 1: 1: 1:	ESTIMATE (SE)	24,038 (2,227) 2,669	0.065 (0.005) 303	0.94 3.07)	48.1 (2.8) 316	6 878 (895) 2,674	0.019 (0.002) 304	0.27 (0.03) 316	22:2 (22:3) 316	
ESTIMATE (25.664) (0.074 (1.14) 55.0 (4.118) (0.003) (0.28) (0.276 (2.664) (0.004) (0.	«	ESTIMATE (SE) N	67, 145 (3,608) 2,669	0.069 (0.003) 848	00 800 400 400	48:1 (1:7) 886	20,554 (3,019) 2,674	0.017 (0.002) 851	00.29 80.04 855	17.4 886 886	
ESTIMATE (2,625) (0.070) (1.01) (2.2.3) (1.300) (0.002) (0.03) (0	e,	ESTIMATE (SE) N	25, 320 (2,664) 2,669	(0.008) (270	(0.10) (278	75.0 (3.0) 27.8	6, 318 (1, 116) 2, 674	0.018 (0.003) 270	(0:28 278 278	20.5 (2.4) 278	
ESTIMATE (1, 298) (0.048) (0.85) (35.9) (288) (0.005) (0.02) (0.0	· •	ESTIMATE (SE) N	40 383 (2,825) 2,669	0.070 (0.004) 477	1.01 (0.06)	62. 64. 64.	7 118 (1;300) 2,674	(0.011 (0.002) 477	0.18 (0.03) 497	(1:5) 497)	
ESTIMATE 164, 408 (0.008) (0.008) (0.003) (1.1) (3.858) (0.018) (0.008) (0.008)	un.	ESTIMATE (SE)	8 013 (1,298) 2,669	0.048 (0.007) 145	00.085 50.085 53.33	35.8 (3.8) 153	2 (288) 2 (588)	(0.005 145)	(0,07) 153)	(2.5) (53)	
	TATEWIDE	1	164, 408 (5, 166) 2, 716	00.008 2002)	0.86 (0.03) 2.171	(1948) 2, (177)	(33, 885 (37, 785 (37, 785)	(0.0018) 2,313	20:28 20:48	16.8 2,177	

REGION	STATISTIC	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	PERCENT HUNTERS PER REGION
-	ESTIMATE (SE) N	4 868 (915) 2,517	0.086 (0.012) 74	(0.75 (0.11) 75	46.7 (5.8) 7.5	53,681 (8,187) (2,507	(0.84)	6,518 (741) 469	18:0 (1:7) 469
~	ESTIMATE (SE) N	10, 433 (1,862) 2,517	0.098 (0.013) 127	(00.84 1239 1299	48:2 (4:4) 130	92.436 (10,729) 2,507	(0,65) (128	11 298 (965) 469	27:7 (2:1) 469
m	ESTIMATE (SE) N	7,825 (1,201) 2,517	00 00 00 00 00 00 00 00 00 00 00 00 00	(0.87 831)	54:8 (5:3)	76,201 (10,509) 2,507	80) 888 888 889	8 0 8 4 8 2 8 8 2 8 9 9	84 86 8.9
→ 1	ESTIMATE (SE) N	13,650 (1,671) 2,517	0.015 0.010 134 0.015	(0, 10) 138	59.4 (4.2) 138	(12, 861 2, 319)	9.65 (0.67)	11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29.4 (2.1) 469
G	ESTIMATE (SE) N	2 000 (632) 2,517	0.081 (0.021) 31	00.70 0.19)	39.4 3.6)	21, 472 (4, 945) 2, 507	7.94 (1.17) 31	2 868 (496) 469	7.0 6:20 669
	ESTIMATE		0.101	600					PERCENT OF TOTAL

BIG GAME LICENSE HOLDERS ONLY

(A) CALCULATED AS A PERCENT OF

PERCENT OF TOTAL LICENSEES(B) PERCENT HUNTERS PER REGION (0:2) 2.681 (9.5) 28) OF FALL TURKEY HUNTING IN MISSISSIPPI DURING THE 1991 HUNTING SEASON. (278) 278) 28 TOTAL (378 248) 289) 03.89 2.89 2.89 80 64. 87. (1, 181) 2,675 2.55 2.242 675 575 TOTAL MANDAYS 37.5 (12.5) 16) 0.0 333 22 22 23 0.0 4.00 € EXPANDED STATEWIDE AND REGIONAL SUMMARIES 0.098 (0.040) 0.147 (0.048) 256 0.159 (0.054) AVERAGE DAILY KILL (374) (677) TOTAL HARVEST (239) (677 STATISTIC ESTIMATE (SE) ESTIMATE (SE) ESTIMATE (SE) N STATEWIDE TABLE 23. REGION(A)

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

•

SPECIES	STATISTIC	TOTAL	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL	AVERAGE SEASONAL DAYS HUNTING	TOTAL	PERCENT OF TOTAL LICENSES (A
DEER	ESTIMATE (SE) N	277,714 (8,877) 2,716	2.080 2.0020 3832)	1.56 (0.05) 2,251	58.3 (1.0) 2,257	3,248,982 (68,393) (2,625	(0:35) 2, 160	177, 323 (1, 543) 2, 722	82.9 (0.7) 2.722
BUCK	ESTIMATE (SE) N	197,006 (6,261) 2,716	0.058 (0.002) 2.383	(0,03) 2,251	48.8 (1:1) 2,257				
306	ESTIMATE (SE)	80,874 (4,420) 2,721	0.022 2,387	0.46 2,256	26.8 2,257				
TURKEY	ESTIMATE (SE) N	42, 167 (3; 108)	0.045 (0.014) 721	0.88 (0.06) 503	(2.2) 504	368, 682 (20, 910)	21.39 (7.03) 490	43,805 (1,762)	18.3 (0.7)

39

ONLY,

GAME LICENSE HOLDERS

В.

- 1. Do you think it is ethical to hunt deer over food plots (grasses, clovers, etc)?
 - 68.4% Yes
 - 24.5% No
 - 6.0% Don't know
- 2. Do you think it is ethical to hunt deer over corn, commercial deer ration, etc. (not food plots)?
 - 26.6% Yes
 - 64.9% No
 - 7.5% Don't know
- 3. What do you think about use of corn, deer ration, etc., for deer hunting on private land in Mississippi?
 - 48.1% It should be allowed if these foods had to be available year round in a manner approved by MDWFP
 - 9.4% It should be allowed if these foods were available just during deer season
 - 32.5% It should not be allowed
 - 8.9% Don't know
- 4. Do you believe wildlife violators receive penalties that are
 - 8.1% Too severe most of the time
 - 40.0% Just right most of the time
 - 38.9% Too lax most of the time
 - 12.2% Don't know
- 5. If you own or lease at least 50 acres, would you purchase a \$10 doe permit if available in your county?
 - 43.2% Yes
 - 22.4% No
 - 29.7% Don't own or lease 50 acres
 - 3.4% Don't know
- 6. Did you have access to antlerless deer permits this year?
 - 24.1% Yes
 - 65.2% No
 - 9.8% Don't know

Table 25. Summary of opinion question responses

7. Within the next ten years do you think the following will have a negative affect on hunters in Mississippi?

Loss	of habitat	Anti	-hunting groups
4.2%	Very likely Moderately likely Won't affect hunters Moderately unlikely	26.8% 12.3%	Very likely Moderately likely Won't affect Moderately unlikely
7.5%	Very unlikely		Very unlikely
5.7%	Don't know	9.1%	Don't know
Not	enough game	Not	enough time to hunt
30.9%	Very likely	25.0%	Very likely
	Moderately likely	27.8%	
	Won't affect hunters	18.8%	
	Moderately unlikely		Moderately unlikely
	Very unlikely		Very unlikely
5.3%	Don't know	5.3%	Don't know
Too	expensive to hunt	Not	enough public areas
	Very likely		Very likely
25.2%		22.9%	
	Won't affect hunters		Won't affect
	Moderately unlikely		Moderately unlikely
	Very unlikely	5.5%	Very unlikely
3.7%	Don't know	5.3%	Don't know

- 8. Do you believe hunting is a privilege or a right?
 - 55.6% Privilege
 - 37.7% Right
 - 5.2% Don't know
- 9. The 1991-92 hunting seasons have ended. Did you buy a license to hunt deer or turkey in the 1990-91 (last year) hunting seasons?
 - 89.0% Yes
 - 10.1% No



1991-92 MISSISSIPPI HUNTER QUESTIONNAIRE

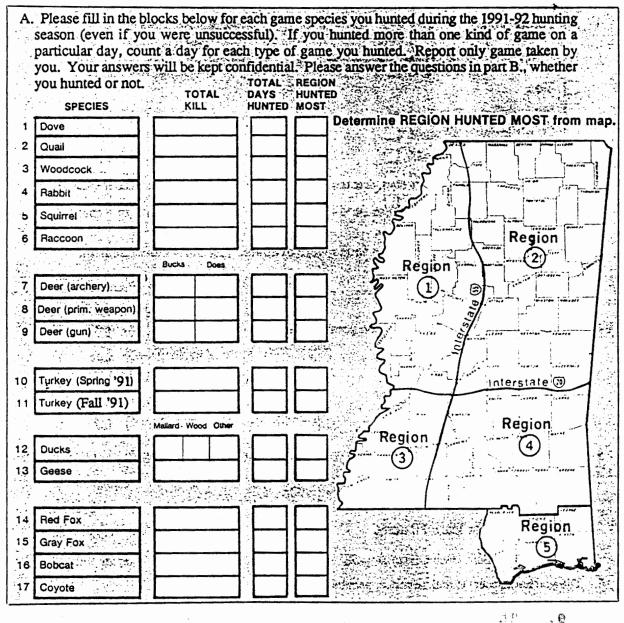


Fig. 1 Questionnaire used for the 1991-92 mail survey of game harvest and hunter effort in Mississippi.

't		
3. Please answer the following questions:	7. Within the next ten years do you think the following will have a negative affect on hunters in Mississipp	have a negative affect on hunters in Mississipp
	Loss of habitar	Anti-hunting groups
. Do you think it is cthical to hunt deer over food plots (grasses, clovers, etc.)?	□ Very likely	☐ Very likely
□ Yes	☐ Moderately likely	☐ Moderately likely
ON CO	Won't affect hunters	☐ Won't affect hunters
□ Don't know	☐ Moderately unlikely	☐ Moderately unlikely
	☐ Very unlikely	☐ Very unlikely
. Do you think it is ethical to hunt deer over com, commercial deer ration, etc. (not food plots)?	☐ Don't know	Don't know
□ Yes		
∾ □	Not enough game	Not enough time to hunt
☐ Don't know	☐ Very likely	☐ Very likely
	☐ Moderately likely	■ Moderately likely
. What do you think about use of corn, deer ration, etc., for deer hunting on private land in Mississippi?	Won't affect hunters	☐ Won't affect hunters
1 technicity be allowed if these fixeds had to be available were round in a manner	Moderately unlikely	Moderately unlikely
	☐ Very unlikely	■ Very unlikely
It should be allowed if these foods were available just during deer season.	☐ Don't know	Don't know
☐ It should not be allowed	700	
Don't know	TO expensive to name	ivoi enough public nunung areas
	Very likely	U Very likely
. Do you believe wildlife violators receive penallies that are	☐ Moderately likely	Moderately likely
Too severe most of the time	☐ Won't affect hunters	Won't affect hunters
Ust right most of the time	☐ Moderately unlikely	☐ Moderately unlikely
☐ Too lax most of the time	☐ Very unlikely	☐ Very unlikely
□ Don't know	□ Don't know	Don't know
. If you own or lease at least 50 acres, would you purchase a \$10 doe permit if available in your county?	8. Do you believe hunting is a privilege or a right?	
□ Yes	☐ Privilege	
N □	☐ Right	
Don't own or lease 50 acres	Don't know	
Don't know	9. The 1991-92 hunting seasons have ended. Did you buy a license to hunt deer or turkey in the 1990-91	license to hunt deer or turkey in the 1990-91
. Did you have access to antierless deer permits this year?	(last year) hunting seasons?	
	Yes	
□ No		
Don't know	10. Your age:ycars	



Mississippi Department of Wildlife, Fisheries and Parks Jack Herring, Executive Director

Dear Sportsman:

The Department of Wildlife, Fisheries and Parks is conducting a study to obtain reasonable estimates of game harvest, hunter effort and hunter opinions. Information supplied by you and other selected hunters will assist us in managing our game resources for the greatest public benefit.

For meaningful results, information is needed from everyone receiving a questionnaire since only a limited number of sportsmen can be contacted. Please 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 mailing 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,

Mack Herring

Executive Director

JH:ccs

Enclosure

Fig. 2 Cover letter mailed with the inital mailing of the 1991-92 survey of game harvest and hunter effort in Mississippi.

Survey Section DEPARTMENT OF WILDLIFE, FISHERIES & PARKS

P. O. Box 451 JACKSON, MISSISSIPPI 39205



PRESORTED FIRST CLASS MAIL US POSTAGE PAID PERMIT NO 141

Dear Sportsman:

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

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

Jack Herring Acting Executive Director

Fig. 3 Post card used as the first reminder mailing to nonrepsondents during the 1991-92 survey of game harvest and hunter effort in Mississippi.



Mississippi Department of Wildlife, Fisheries and Parks Jack Herring, Executive Director

Dear Sportsman:

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

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 Mississippi Sportsmen.

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 his 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,

Jagk Herring

Executive Director

JH:ccs

Enclosure

Fig. 4 Cover letter mailed with the second (and final) reminder mailing to non respondents during the 1991-92 survey of game harvest and hunter effort in Mississippi.

P. O. Box 451, Jackson, MS 39205-0451 (601) 362-9212 Watch *MISSISSIPPI OUTDOORS* on the Mississippi Educational Television Network

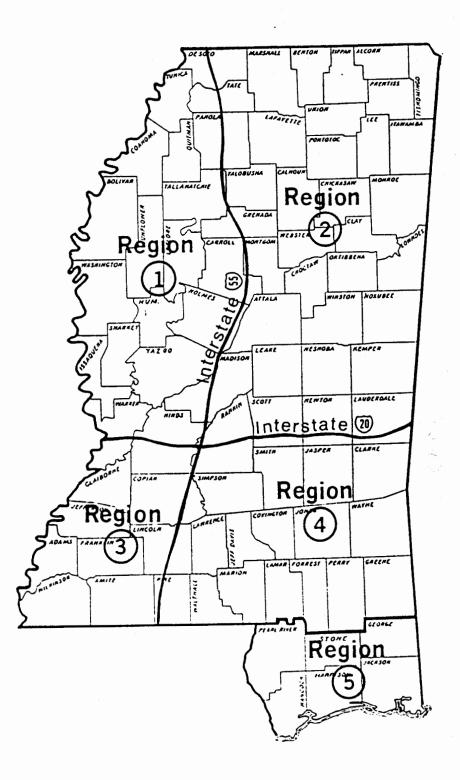


Fig. 5 Regional partitions for region hunted most