

CHARACTERISTICS OF MISSISSIPPI GAME LAW COOPERATORS¹

by

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ABSTRACT

A self-administered questionnaire survey of 104 Mississippi game law cooperators (i.e. persons who report wildlife violations) was conducted in 1975. In addition, violation reports received from cooperators were analyzed. Generally, cooperators thought game law enforcement was "ineffective" but "fair," and that agents made "too few" arrests. Most cooperators felt "good" toward game laws but thought fines levied against violators were "too low." All cooperators opposed violators. The majority of cooperators reported that "a lot" of violations occurred in their residence county. All cooperators were Caucasians, nine of every 10 were males, and ages were widely distributed. The most frequently cited occupation was industrial work. The majority of cooperators were homeowners living on a farm or in open country. The most frequently cited income level was \$14,000 or more a year.

The field of wildlife law enforcement research is in its infancy. As a result, knowledge concerning relationships between static and variable factors, and even the question of whether something is a factor, is much less developed and documented than in other specialized fields of wildlife management.

Research in wildlife law enforcement is greatly needed. Giles (1970), Giles et al. (1971), Kaminsky (1974), McCormick (1968), and Morse (1969) have suggested important research avenues in wildlife law enforcement.

The purpose of this study was to describe the characteristics of Mississippi game law cooperators and their violation reports. A Mississippi game law cooperator (hereafter called "cooperator") is defined as any individual residing in Mississippi who has reported to the proper authority the occurrence in Mississippi of what he or she believed was a wildlife violation.

Cooperators represent a valuable resource to state wildlife agencies, according to a recent questionnaire survey by the author (Beattie 1975). Twenty-four state wildlife agencies calculated the percentage of all closed-season cases successfully prosecuted as the result of reports from citizens in 1974. The percentages ranged from 0.1 percent (New Mexico) to 99 percent (Virginia). It is significant to note that nearly one-half ($\bar{X}=46$ percent) of all closed-season cases successfully prosecuted by the 24 agencies were the result of reports from citizens.

Eleven state wildlife agencies recorded the number of violation reports received by them from citizens of their respective states in 1974. Violation reports ranged from a low of 30 in New Mexico to a high of 6,511 in West Virginia. The average number of reports received by the 11 agencies was 2,120.

Wildlife managers realize that a great deal of pertinent data about a wildlife species must be known before that species can be effectively managed. "People" management is similar to wildlife management in that characteristics of the target population must be known before an effective management plan can be developed. This study was based on the rationale that an understanding of the socio-economic, demographic, participation, belief, and report characteristics of cooperators would provide those persons responsible for wildlife management in Mississippi with knowledge that might aid in eliciting the cooperation of citizens in reporting wildlife violations.

METHODS

The initial step in the project design was to obtain a list, as complete as possible, of the names and addresses of Mississippi cooperators.

The central office of the Law Enforcement Division of the Mississippi Game and Fish Commission has on file the written reports (notifications) made by cooperators dating

back to 22 September, 1972. In conjunction with the initiation of an anti-poaching campaign, the central office (Jackson, Mississippi) began recording oral notifications made to that office on 31 October, 1974. Prior to that date, oral notifications were either not recorded or were recorded but not retained and filed.

In October of 1974, Law Enforcement Division officials requested all enforcement agents in Mississippi to begin recording the names and addresses of cooperators, along with other information. However, for reasons not described here, agents failed to accomplish this task and the names and addresses of cooperators reporting violations to agents in each county were not obtained.

The final sample consisted of 54 cooperators who had made a written notification to the Law Enforcement Division between 22 September, 1972, and 10 October, 1975, and 50 cooperators who had made an oral notification to the Law Enforcement Division, sheriff departments, the "Governor's Hot Line," or the Fish and Wildlife Service office in Jackson, Mississippi.

In many notifications a cooperator wished to remain anonymous and therefore could not be included in the sample. Also, in many cases a cooperator gave his name and telephone number but not his mailing address. In notifications where this occurred, the author called the cooperator by telephone. The author did not identify himself and gave the cooperator misleading information in an attempt to obtain the mailing address of the cooperator. At least three unsuccessful attempts were made by telephone to contact cooperators.

Where possible, all written and oral notifications were analyzed to obtain the following information: 1) day and date of notification; 2) number of cooperators involved in the notification; 3) name and residence county of cooperators; 4) "type" and number of violations reported; 5) county where reported violations occurred; 6) identification of violators by cooperators; and 7) occurrence of violations on land owned by cooperators.

A mail questionnaire was used primarily because of the high cost of personal interviews. The questionnaire was pretested with a hunting club in Mississippi to test the logical order of the questions and the clarity and ease of answering each question.

A preliminary notice was mailed to cooperators on 11 October, 1975. The initial questionnaire mailing on 15 October, 1975, was followed by three follow-up reminders at two week intervals.

RESULTS AND DISCUSSION

Preliminary, initial, and follow-up mailings resulted in a questionnaire rate of return of 83.0 percent, excluding undeliverable (nine) and unusable (one) questionnaires. As the results have been described in detail elsewhere (Beattie 1976), only highlights of the results will be given here.

Questionnaire Results

General Questions

Sixty-five (82.3 percent) of the 79 cooperators returning the questionnaire had hunted in Mississippi during a five year period prior to individual questionnaire completion. A majority (55.6 percent) of the hunting cooperators preferred White-tailed Deer (*Odocoileus virginianus*) hunting, followed by upland game (29.1 percent), migratory birds (12.3 percent), and furbearers (3.0 percent).

Almost all (97.4 percent) of the cooperators had at least one friend who hunted. More than two-thirds of the cooperators had more friends who hunted than friends who didn't hunt.

Sixty-five (83.3 percent) cooperators owned or leased land in Mississippi. The number of acres of land owned or leased ranged from less than one acre (four persons, 6.6 percent) to 4,000 acres (one person, 1.6 percent). An average of 691 acres of land was owned or leased by the 28 cooperators reported owning or leasing greater than 60 acres of land. The sample consisted of approximately one-half small landholders and one-half large landholders.

Seventeen (21.8 percent) cooperators reported that they had seen the anti-poaching poster distributed by the Mississippi Game and Fish Commission. Sixty-one (78.2 percent) cooperators had not seen the poster.

Wildlife Law Enforcement

Twenty-four (30.4 percent) cooperators expressed the opinion that game law enforcement was "effective" in their residence county. Over one-half (58.2 percent) of the cooperators thought enforcement was "ineffective" in their residence county.

Slightly less than one-half (48.7 percent) of the cooperators felt that enforcement was "fair" in their residence county, as compared to 34.6 percent of the cooperators who considered enforcement to be "unfair."

Almost three-fourths of the cooperators thought "too few" arrests were made by agents in their residence county. None of the cooperators thought "too many" arrests were made.

Approximately one-half (52.5 percent) of the cooperators believed fines for violations were "too low," one cooperator thought fines were "too high," and 13 (16.7 percent) cooperators believed fines were "just right."

Most cooperators felt "good" about present game laws, three felt "average," and 20 (20.6 percent) felt "bad" about present game laws. A majority of cooperators (52.6 percent) believed there were "enough" game laws, although 42.3 percent stated that game laws were "too few." A majority of the cooperators who felt there were enough game laws suggested (in written form next to the response category "enough") that a problem was not the number of game laws but the enforcement of existing laws.

All cooperators either "strongly opposed" (87.0 percent) or "opposed" (13.0 percent) violators. Almost all of the cooperators (98.7 percent) reported that game law violations occurred in their residence county. A majority of cooperators (70.7 percent) thought "a lot" of violations occurred, while 24.0 percent believed only "a few" violations occurred.

In four different hypothetical situations, cooperators were requested to reveal their personal feelings toward a friend or stranger who committed a violation on or off the property of the cooperator. Fifty-nine (76.6 percent) cooperators predicted they would "definitely report" a stranger shooting a deer out-of-season on someone else's land, whereas 45 (59.3 percent) cooperators predicted they would "definitely report" a friend shooting a deer out-of-season on their land (i.e. the cooperator's land) (Table 1).

A greater percentage of cooperators predicted they would "probably report" a stranger on someone else's land than in the other hypothetical situations. Surprisingly, more cooperators predicted they would "probably report" a friend who shot a deer than if they saw a stranger shoot a deer out-of-season on their land. However, 65 (84.4 percent) cooperators predicted they would *at least* "probably report" a stranger for shooting a deer on their land whereas 56 (73.7 percent) cooperators predicted they would *at least* "probably report" a friend for shooting a deer out-of-season on their land.

Table 1. Cooperator response to questions on watching a person shoot a deer out-of-season as it varies with alternation of land ownership and friendship clauses in questionnaire statements

Response	Stranger, Other Land		Friend, Other Land		Stranger, Coop. Land		Friend, Coop. Land	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Definitely report	52	67.5	45	59.3	59	76.6	48	63.2
Probably report	9	11.7	6	7.9	6	7.8	8	10.5
Probably not report	8	10.4	10	13.1	4	5.2	3	3.9
Definitely not report	—	—	—	—	—	—	—	—
Approach	7	9.9	15	19.7	6	7.8	17	22.4
Citizen's arrest*	1	1.3	—	—	1	1.3	—	—
Shoot him*	—	—	—	—	1	1.3	—	—
Total	77	100.0	76	100.0	77	100.0	76	100.0

Chi-square=22.85**

* Response written in by cooperator(s).

**Significant at .10 level.

Ten (13.1 percent) cooperators predicted they "probably would not report" a friend for shooting a deer on someone else's land whereas three (3.9 percent) cooperators predicted they "probably would not report" a friend for shooting a deer on their land.

Cooperators predicted they would be most likely to "approach" a friend shooting a deer out-of-season on their land (22.4 percent) and least likely to "approach" and not report a

stranger shooting a deer out-of-season on their land (7.8 percent). One cooperator anticipated that he would make a citizen's arrest if he observed a stranger shooting a deer out-of-season. One cooperator reported that he would shoot a stranger shooting a deer out-of-season on his land.

The results suggest that cooperators would be most likely to report a stranger shooting a deer out-of-season on their land and least likely to report a friend shooting a deer out-of-season on their land.

Sixty-five (84.4 percent) cooperators reported they had witnessed in Mississippi, within a five year period, what they thought was a wildlife violation. Twelve (15.6 percent) cooperators did not admit to witnessing a violation. When asked if they had reported the violation, 51 (78.5 percent) of the 65 cooperators responded that they had reported the violation. Although there is documented evidence that all 79 cooperators completing the questionnaire had reported, within a five year period, what they believed to have been a wildlife violation, 24 (35.4 percent) cooperators did not remember and/or would not admit to reporting a violation.

The reason most frequently cited by cooperators for reporting a violation was "to protect and preserve wildlife" (72.5 percent). Less frequently cited reasons were 1) the violator broke a law (64.7 percent); 2) the violator could have personally harmed me (29.4 percent); 3) the violator was trespassing on my land when hunting (27.5 percent); and 4) the violator was hurting my hunting success during the legal season (27.5 percent). Cooperators cited an average of 2.3 reasons for reporting a violation.

Fourteen cooperators reported that they had witnessed a violation but had not reported it. Reasons frequently cited for not reporting a violation were 1) not wanting to get involved (42.9 percent); 2) not wanting to be called as a witness (28.6 percent); and 3) fear of revenge by the violator (28.6 percent). Cooperators cited an average of 1.6 reasons for not reporting a violation.

Demographic Characteristics

All cooperators were Caucasians and nine of every 10 were males. Ages of cooperators were distributed broadly and evenly about the mean. The most frequently cited occupation was industrial work. The majority of cooperators were homeowners living on a farm or in open country. The most frequently cited income level was \$14,000 or more a year.

Violation Notification Characteristics

Between 31 October, 1974, and 31 December, 1975, 148 oral notifications were made by 150 persons from 36 Mississippi counties. The largest percentage of oral notifications were received from cooperators in Hinds and Rankin Counties, possibly because an oral notification to the central office of the Law Enforcement Division would probably not involve a long-distance telephone call.

The most frequently reported violations involved illegal acts directed against White-tailed Deer. Deer headlighting was the most frequently reported violation.

Cooperators were generally less willing to identify themselves when reporting the name of a violator when compared to notifications in which a violator was not identified by name. In approximately one of every six notifications, a violation was reported outside of a cooperator's residence county. Cooperators appeared very willing to identify themselves when reporting a violation on their property.

Between 31 October, 1974, and 31 December, 1975, an average of 1.15 violations were reported per notification. Notifications occurred most frequently on Thursday (22.3 percent), followed closely by Monday (21.6 percent) and Friday (20.9 percent).

CONCLUSIONS

This study included only those cooperators who had made a notification to the central office of the Law Enforcement Division of the Mississippi Game and fish Commission. Persons reporting violations to enforcement agents in each county were not sampled. Therefore, it is possible that cooperators in this study have characteristics different from cooperators who reported violations to county enforcement agents.

Twelve state wildlife agencies each received an average of 2,120 violation reports in 1974 (Beattie 1975). Therefore, cooperators sampled in this study probably include only a small percentage of the Mississippi cooperator population and cannot be considered representative of the cooperator population. It is probable that the cooperators sampled in this study have more intense and "deep-seated" anti-poaching and/or anti-poacher attitudes and beliefs than cooperators contacting county enforcement agents.

The results of this study indicate that the Mississippi Game and Fish Commission should incorporate into the development of information and education materials the reasons given by cooperators in this study for reporting and/or not reporting wildlife violations. It is also recommended that a uniform citizen reporting system be established within Mississippi. Several years ago the North Carolina Wildlife Resources Commission implemented a "Hotline" telephone network. Red "stop signs" were posted throughout the state in popular hunting areas. Each poster listed the nearest "Hotline" phone number where a violation could be reported. A total of six toll-free "Hotline" numbers were located across the state. According to Mr. Don Curtis, Chief of the Wildlife Commission's Division of Protection, "This system worked very well last year (1973), and we're hoping it will work even better this year" (Dean 1974). Comprehensive and continuous monitoring of citizen-reported information could possibly be used to discover relationships between citizen reporting rates and violation occurrences, demographic characteristics, game populations, and warden community acceptance.

The practical utility of citizen-reported violations has been demonstrated by Kaminsky and Giles (1974). The authors' approach to estimating the extent of spotlighting in Virginia using citizen reporting rates was as follows:

"(An) approach to estimating the extent of spotlighting in Virginia was based on data supplied by Mr. Harry Gillam, of the Education Division, Virginia Commission of Game and Inland Fisheries. In a survey conducted of all Virginia's agents in the fall of 1969, the number of actual and casual complaints of spotlighting received by each agent was recorded. Of the 109 full time agents, 80 responded to this questionnaire. Although the terms, actual and casual, were vaguely defined, the large sample size and unique nature of the data prompted their use as an estimator of the extent of spotlighting. It must be made clear that these estimates are useful only as "ballpark" figures. They provide a basis for indicating the number of spotlighting violations, and are more likely to be of greater reliability than mere guesswork.

An average of 3.94 actual complaints were received per week by Virginia's agent during a 12-week period from October 1 to December 31. This period contained an average of 86.3% of all spotlighting arrests in the 3-year period from 1968-1970. There were 109 full-time agents working in Virginia and based on their report of an average of 3.94 complaints per week during the period, an estimated 5,153 maximum spotlighting complaints would occur (i.e. $109 \text{ agents} \times 12 \text{ weeks} \times 3.94 \text{ complaints/week} = 5,153$).

Since an average of 86.3% of all spotlighting arrests occurred during the study period, it was assumed that this is proportional to the total amount of illegal activity occurring. That is, during the remaining 40 weeks of the year, 13.7% of the total spotlighting arrests were made. The actual number may be higher than the complaints received since all violations are not reported. Duplications in reporting, or reports of legitimate hunting as spotlighting would tend to lower the estimate. Applying these assumptions, the estimated average number of spotlighting violations for 1968, 1969, and 1970 was 5,971. An average of 173 arrests were made during these years for spotlighting. Based on this average and the estimate of 5,971, the agents succeeded in arresting at least 2.89% of the violations."

Cooperators represent a valuable resource to wildlife agencies and efforts should be made to stimulate persons to report violations. However, the degree to which efforts should be made remains questionable. Knowledge concerning the effect(s) of violations on the population dynamics of game species would prove helpful in determining the intensity to which efforts should be made in managing the cooperator resource and developing anti-poaching campaigns.

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