

Hunter Access to Private Lands in Piedmont, Virginia

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Abstract: This study presents baseline information on the accessibility of private lands in the southern Piedmont of Virginia for hunting, fishing, and trapping. A questionnaire was mailed to 1,525 landowners in 4 rural counties. The typical respondent from the 973 analyzed questionnaires was a 55-year-old male who owned between 4.0 and 8.1ha. Land was posted by 53% of the landowners, yet only 10% totally prohibited hunting. Family members, friends, and local residents were more likely to be granted permission to hunt or fish than were outsiders. Trespassing and property abuse were reported by half the landowners. Problems with hunters and other recreationists probably increase selectivity by landowners, reducing recreational opportunities on private lands. Conservation organizations and wildlife agencies should continue to emphasize proper sportsman-landowner relationships, emphasizing recreational ethics and respect for property rights.

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Sportsman-landowner relations are a perennial concern of wildlife management agencies. Landowners who experience problems with sportsmen generate political pressures on wildlife agencies. These immediate problems relate to the basic issue of public access to wildlife resources, most of which are located on private lands. Wildlife management agencies need trend data on the degree and nature of public access to private lands to detect problem areas and guide their information-education programs (Bromley and Bryan 1980). This

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study was conducted in 1981 to get baseline data on public access to private lands in the southern Piedmont region of Virginia. Some information was gathered on fishing and trapping, but the primary objective was to document hunter-landowner relations.

Methods

Several steps were followed in developing a mail questionnaire. First, responses from open-ended interviews held in November 1980 with 15 landowners of the region were used to provide insights on sportsman-landowner issues and to suggest appropriate questions to elicit views of other landowners. In addition, several questions were taken from Shaw (1975) and Kellert (1978). A preliminary questionnaire was sent in December 1980 to a sample of 150 people owning ≥ 4.0 ha of unincorporated land. Names were drawn systematically from the county land book at the Commissioner of Revenue's office in Powhatan County. Thirty-three usable returns were obtained. The responses to each question on the pretest were converted to numeric code values for analysis with the Statistical Package for Social Sciences (SPSS) (Nie et al. 1975). Data were subject to descriptive analyses (mean, mode, median, and standard deviation). Correlation coefficients for separate items measuring similar variables were calculated and used to identify questions which produced inconsistent responses. These analyses and the written comments of respondents guided development of the final questionnaire. Neither the responses from the interviews nor from the preliminary questionnaire were used in the final analysis for this study.

The final questionnaire was mailed in March 1981 to a random sample of 1,600 people owning ≥ 4.0 ha of unincorporated land in Amelia, Charlotte, Lunenburg, and Prince Edward counties. These adjoining counties were chosen because they are rural and relatively homogeneous in land use. Each county contained >400 farms (U.S. Bureau of the Census 1982). The statistical design of the questionnaire was implemented in accordance with Dillman (1978). Three followup efforts were used to increase response rate. Non-respondent bias was evaluated by comparing late with early responses. No significant differences were apparent and no further efforts were made to contact non-respondents.

Data were analyzed in an identical manner to the analyses of the preliminary questionnaire.

In addition to gathering baseline data on public access to private lands, the final questionnaire was designed to probe the reasons why landowners permit or deny access to their lands. Principal component factor analysis was used to condense 30 independent variables into 8 composite variables which represented landowner demographics: past problems with hunters and vulnerability to property abuse; attitudes toward the utility, importance, and vulnerability of

wildlife; and attitudes toward hunting and hunters. Simple and hierarchical regressions were used to explore the relationships of 2 dependent variables, posting and granting permission to hunt, with these 8 independent variables.

Results

Of the 1,600 mailed questionnaires, 75 (5%) were undeliverable, 449 addressees (28%) did not respond, 103 (6%) returned unusable questionnaires, (<80% of the questionnaire was not filled out), and 973 returned completed (\geq 80% of the questionnaire filled out). Failure to answer all questions by some respondents accounts for variations in sample size reported in different subject areas.

Most landowners were from farm backgrounds. Of 949 (98%) landowners who answered questions on their backgrounds, 77% were reared in rural settings and 11% grew up in small towns. The average age was 55 years; 80% were male. Absentee landowners comprised 26% of the sample. Twenty percent had less than a high school education, 40% had attended high school, and 40% had education beyond high school.

The sizes of the landholdings ranged from 4.0 to >800 ha. Twenty-three percent of the landholdings were between 4.0 and 19.8 ha and 19% were between 19.9 and 40.0 ha. Another 23% were between 40.1 and 80.5 ha and 22% between 80.5 and 202 ha. Only 13% were \geq 202 ha. Three-fourths (714) of the landowners earned income from their land, and of this group, 60% farmed it themselves, 41% leased land for agriculture, and 25% harvested timber.

Behavior of Landowners

Land was posted by 53% of the responding landowners. However, 90% permitted hunting (Table 1), and 39% permitted trapping or would have permitted trapping if asked. Of the 440 who owned places to fish, 97% allowed some fishing. Two-thirds of these landowners granted permission to hunt and fish to family, friends, and local residents only. The chances of a stranger be-

Table 1. Percent landowner response to requests to hunt or fish.

Permission granted to	Desired sporting activity	
	Hunting	Fishing
No one	10	3
Family	2	5
Family and friends	28	26
Local residents	38	35
Anyone who asks	7	21
Everyone	16	10
Total respondents	860	440

Table 2. Reasons for denying a person permission to hunt.

How important are these reasons?	Extremely important 1	Quite important 2	Moderately important 3	Slightly important 4	Not important 5
	Relative frequency (%)				
Hunter with a large group	60	17	10	5	10
Hunter wants to road hunt	58	11	11	5	15
Hunter is a stranger	12	5	9	15	59
Hunter wants to hunt game you feel is rare	58	12	9	5	16
Hunter has a bad attitude	79	7	2	1	11

ing granted permission to hunt or fish were about 20% and 30%, respectively.

When asked why they might deny permission to hunt, 86% of the 597 respondents who allowed hunting by permission only said they would turn down a hunter who exhibited a "bad attitude" (Table 2). Other reasons given were if the hunter was with a large group, wanted to road hunt, or wanted to hunt game that was considered rare by the landowner.

Another aspect of access for hunting involves the leasing of hunting rights to sportsmen. Twenty percent of the landowners allowed club members to hunt, but only 8% placed their land under the control of a hunt club and only 2% reported leasing hunting rights to their land. Landowners having arrangements with hunt clubs ($N = 88$) exchanged hunting privileges with club members (81%) and sometimes were paid for hunting rights (17%). The most frequently cited reasons for granting hunting rights to a club were to get help in protecting the land from abuse (74%) and to be able to hunt on other club members' land (43%). With regard to leasing, the influences of neighbors, game wardens, and making money were reported to be minor considerations.

Attitude of Landowners Toward Hunters

Landowners were asked what problems they had with hunters (Table 3). The most commonly reported forms of property rights abuse were hunting (66%) or running dogs (51%) without permission and littering (55%). Vehicle damage to fields and roads was reported by nearly half the landowners. About 30% believed that shooting deer with the use of spotlights had occurred either on their land or adjacent properties.

A majority (56%) of 916 responding landowners agreed with the statement "95% of hunters are good sportsmen." Further, about 90% of 910 respondents felt that a few careless hunters created most of the problems. While 64% agreed that "local hunters respect the rights of landowners," only 28% believed that "hunters who come from other areas to hunt respect the rights of landowners."

Road hunting for deer was controversial in the study area. Using a rifle to shoot at game crossing a road received almost total disapproval. Using vehicles and CB radios to intercept game, using a shotgun to road hunt, and

Table 3. Percent frequency of problems that hunters might cause landowners.

Which of these problems has happened on your land or a neighbor's land?	Your land	Neighbor's land	Hasn't happened
Fence or gate damaged	26	10	64
Gate left open	25	12	63
Roads damaged by vehicles	47	11	42
Equipment or property shot	15	8	78
Pets or livestock shot	12	10	77
Person shot	2	3	96
Person narrowly missed by a shot	12	7	82
Threats made against landowner	6	5	89
Littering	55	4	41
People hunting without permission	66	5	30
Hunters releasing dogs near or on your land without permission	51	3	46
Deer poached by spotlights	29	13	58

shooting from the road at game that is off the road were disapproved by 65% and approved by 25% of the 930 respondents. Ten percent had no opinion.

Attitudes Toward Hunting and Wildlife

Hunting was acceptable to 84% of the landowners in the 4-county area. The prevailing attitude toward wildlife was utilitarian; that is, in order of approval, landowners accepted hunting for meat, for meat and recreation, and for recreation, but hunting for trophies was disapproved. Kellert (1978), too, typified farmers as utilitarian in their views of wildlife and other animals.

Factors Affecting Access

Approximately 17% of the variance in posting and 20% of the variance in granting permission can be explained by Hauser (1982). Past problems with hunters was the only significant factor explaining posting of land. Attitudes toward hunters and hunting were of no predictive value. However, attitude toward hunting was the most important predictor of granting permission to hunt for the 9.7% of the respondents who completely prohibited hunting. Attitude toward hunters was the most important predictor of granting permission for the 90.3% of respondents who allowed some hunting.

Discussion

About half of the 973 rural landowners who responded to the questionnaire posted their land which approximates the national average (Rohlfing 1980). In this study, about 90% of landowners permitted hunting and fishing under certain conditions. Access depends heavily on the familial or geographical relationships of the sportsman to the landowner. People who were strangers were unlikely to be granted access to hunt, fish, or trap.

Data suggest that prevalence of posted signs is an unreliable measurement of the extent and nature of public use of private lands for hunting, fishing, or trapping in rural Virginia and probably elsewhere. Rather, survey research is needed to establish baseline and trend data on recreationist access to wildlife resources on private lands. Such data will prove useful to detect problem areas, suggest educational programs to improve landowner/sportsman relations, and provide quantitative assessment of the effectiveness of educational programs. For example, in the southern Piedmont of Virginia, landowners reported high incidences of trespassing, littering and other property abuses, and violations of game laws by hunters. The most significant factor in increasing the selectivity by landowners in granting access was bad experiences with hunters. These findings underline the need for encouraging higher standards of behavior among sportsmen, with particular attention on landowner rights. Virginia and several other states in the Southeast have begun sportsman ethics programs, such as Operation RESPECT (Bromley and Gillam 1980) and have included ethics in their hunter education courses to address these problems. Evaluating the success of these programs depends on, among other factors, the availability of objective information on landowner experiences, behavior, beliefs, values, and attitudes toward wildlife resources and sportsmen.

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