

LANDOWNER FEELINGS ABOUT WILDLIFE IN THE TENNESSEE VALLEY

FREDERICK B. EMERSON, JR., and JAMES H. BURBANK
Tennessee Valley Authority
Norris, Tennessee

Throughout the seven-state region of the Tennessee Valley wildlife has become an important recreational and economic asset. Here in the Valley an estimated 420,000 hunters spend \$20 million a year for the varied products and services which accompany the recreational use of this valuable resource. And, for every person who hunts there are at least six enjoying wildlife as outdoor hobbyists—birdwatchers, photographers, and nature hikers.

Biologists working on wildlife development have estimated that the *potential* for wildlife is such that within another 30 years some 800,000 hunters alone will be able to enjoy their sport in the Valley—if *development can match potential*.

Since nine-tenths of the land in the Valley is privately owned, it's on this land that the bulk of the wildlife must be reared and harvested if the potential is ever reached.

Are landowners interested in wildlife? How interested? Are they willing to do something at their own expense to improve conditions for wildlife on their land? Answers to these and other questions were obtained by TVA foresters who in the spring of 1964 polled 676 private landowners in the Valley for information about tree planting and game development.

THE SURVEY

The survey covered 31.2 million acres of private land in 397,100 ownerships in the 125 Valley counties. Three hundred and twenty-eight sampling units were distributed across the Valley at the intersections of a twelve-mile grid. Each sampling unit contained 25 acres. All owners of tracts falling within the unit were interviewed. Information on specific land practices was confined to that portion of their holdings within the unit, but attitudes and management objectives included lands outside of the sampling unit. A total of 676 landowners were interviewed and their replies projected to represent landowner feelings toward wildlife Valley-wide.

Public and urban lands totalling 4.7 million acres were excluded, as were 130,000 acres in cemeteries, house lots, and other holdings of less than one acre. Dr. Charles W. Cleland, rural sociologist, University of Tennessee, helped design the survey questionnaire and analyze the results.

FINDINGS

Ninety percent of the private land is owned by individuals, ten percent by corporations. Individual landowners total 98 percent of all landowners; corporate landowners total two percent.

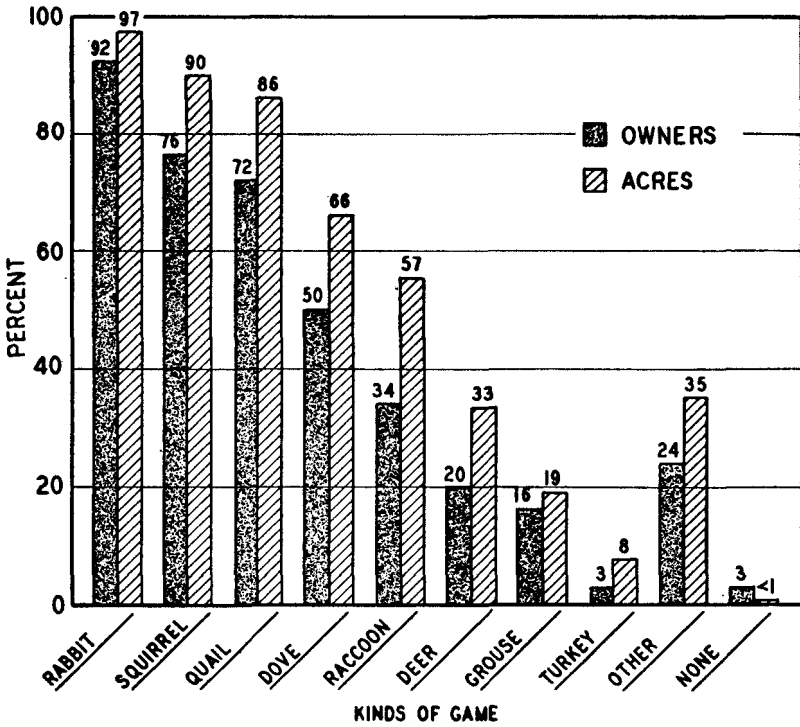
Owners of over 99 percent of the land report having some kind of game

Ninety-seven percent of the owners said they have game; they own over 99 percent of the land. Rabbits headed the list—92 percent of the owners had them. The kinds of game, percent of owners who reported game on their lands, and acreages involved are given in Figure 1.

Twenty percent said game has increased; 23 percent said it has decreased. Fifty percent think there has been no change; 5 percent didn't know; 2 percent declined to answer (Table 1).

FIGURE 1

PERCENT OF OWNERS AND ACRES HAVING GAME



Forty-three percent of the owners reported a change in game abundance in the last ten years

TABLE 1 — CHANGE IN GAME ABUNDANCE IN LAST TEN YEARS.

	Number of owners	Percent of all owners	Number of acres	Percent of total acres
Change reported	171,400	43	16,489,500	52
Increase	81,400	20	7,967,500	25
Decrease	89,600	23	8,518,100	27
Declined to answer	400	<1	3,900	<1
No change reported	198,300	50	13,117,400	43
Do not know	20,300	5	1,139,200	4
Declined to answer	7,100	2	470,300	1

Reasons given for changes in game abundance are grouped in five categories:

Increase

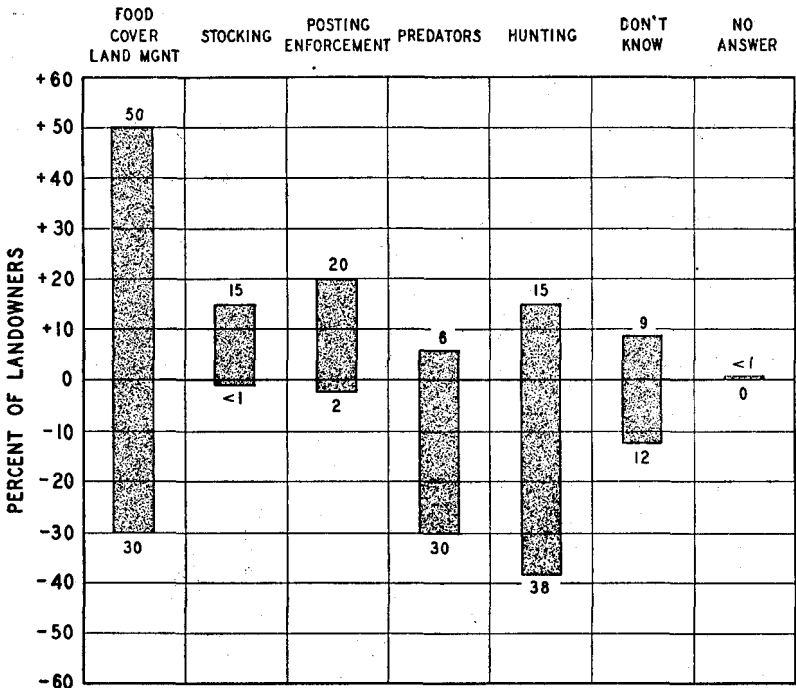
1. Good food, cover, land management
2. Stocking
3. Adequate law enforcement; posting
4. Low numbers of predators
5. Underharvesting

Decrease

1. Poor food, cover, land management
2. No stocking
3. Inadequate law enforcement
4. Abundance of predators
5. Overharvesting

Responses are summarized in Figure 2. Many landowners recognize the

FIGURE 2
REASONS FOR CHANGE IN GAME ABUNDANCE



close relationship between the way land is managed and game abundance—half of those who said game has increased, and nearly one-third of those who reported decreases, attributed the change to influences of land management. Of owners who reported decreases, 30 percent attributed decreases to predators and 38 percent to overharvesting. Thus, landowners assigned far greater importance to predators and overharvesting than is probably warranted. However, it is encouraging that only a fraction of one percent of the landowners gave lack of stocking as a reason for game decreases.

Only about half of the owners know where they can get advice

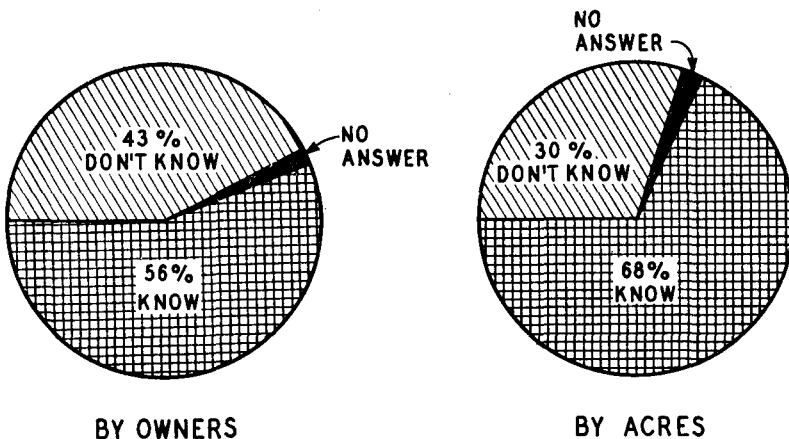
Although free advice or help regarding game can be had from a variety of state and federal resource management agencies, only 56 percent of the owners knew whom to ask. Typical responses of these owners included “game warden,” “conservation officer,” “extension service,” “game and fish commission,” “biologist,” and “forester.” Most owners who knew where to get advice named the state game and fish agency or its representative as their source for this advice. Owners who named *any* person or agency likely to be able to give advice were credited with knowing; so the 43 percent included under “do not know” had no notion of whom to ask (Figure 3).

Here is a breakdown which helps to identify these landowners who do not know where they can get advice regarding game. They are:

- One-third of the male landowners
- Nearly two-thirds of the female landowners
- Nearly half of those living on the tract
- Over one-third of those living within 25 miles of the tract

Four-tenths of those in 40-49 age group
 Two-tenths of those below 30 years of age
 Over one-third of the farmers
 Only one-eighth of the professionals
 Nearly half of those making between \$1,000 - \$5,000
 About one-third of those making between \$5,000 - \$10,000

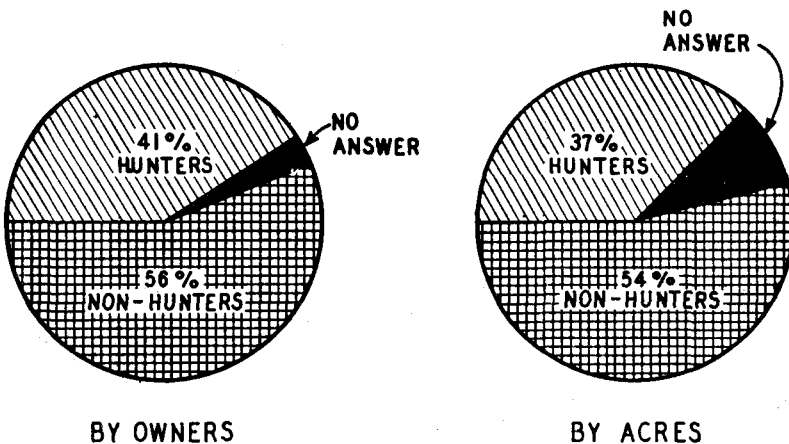
FIGURE 3
KNOWLEDGE OF TECHNICAL ASSISTANCE



Forty-one percent of the owners hunt

The breakdown of hunters and non-hunters and the acreages they own is given in Figure 4.

FIGURE 4
HUNTING ACTIVITY

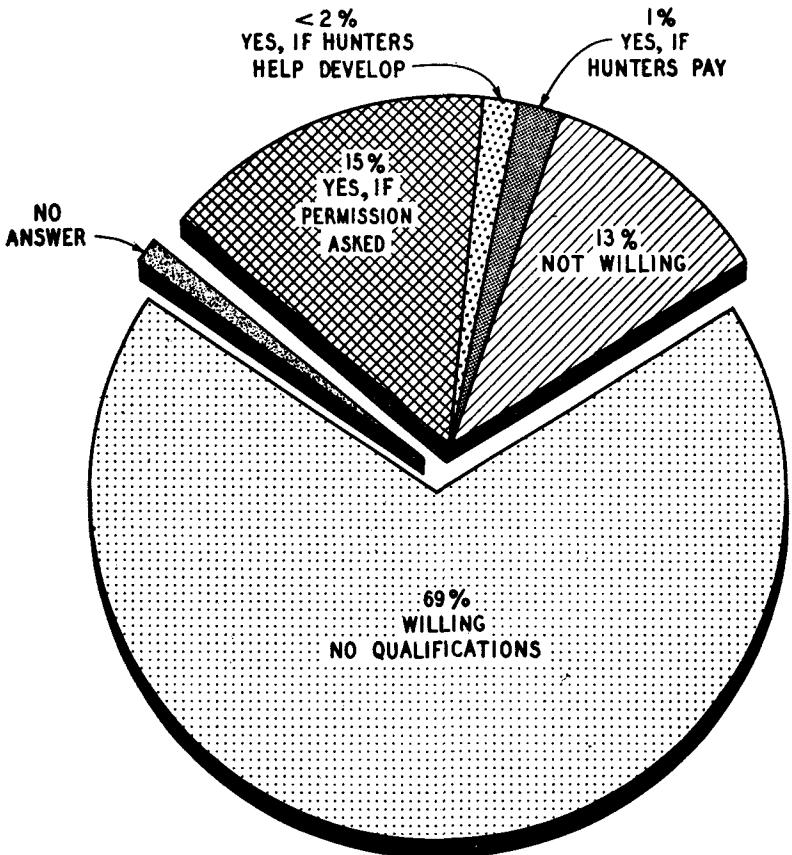


Landowners who hunt and/or allow others to hunt on their lands comprise over three-fourths of all landowners who are willing to improve their lands for game.

Eighty-four percent would allow hunting

Sixty-nine percent of the owners allow hunting without qualification. Fifteen percent more would allow hunting if hunters asked permission. Thus, 84 percent of the owners — who own 85 percent of the total acreage (over 26,560,000 acres) — have their lands open to hunting. Summaries of landowners' willingness to permit hunting are presented in Figure 5.

FIGURE 5
LANDOWNERS WILLINGNESS
TO PERMIT HUNTING



One-fifth of the owners deliberately do something to increase game

Efforts of owners to increase game populations on their lands include limiting hunting, maintaining food and cover, stocking, and controlling predators. Twenty percent of the owners, who own 28 percent of the land, engage in one or more of these activities. Three-fourths of them provide food or cover. Details of attempts to increase game and game management activities are summarized in Tables 2 and 3.

TABLE 2 — ATTEMPTS TO INCREASE GAME.

	Number of owners	Percent of all owners	Number of acres	Percent of total acres
Do something to increase game	79,700	20	8,846,900	28
Do nothing to increase game	313,100	79	21,784,600	70
Declined to answer ...	4,300	1	584,900	2

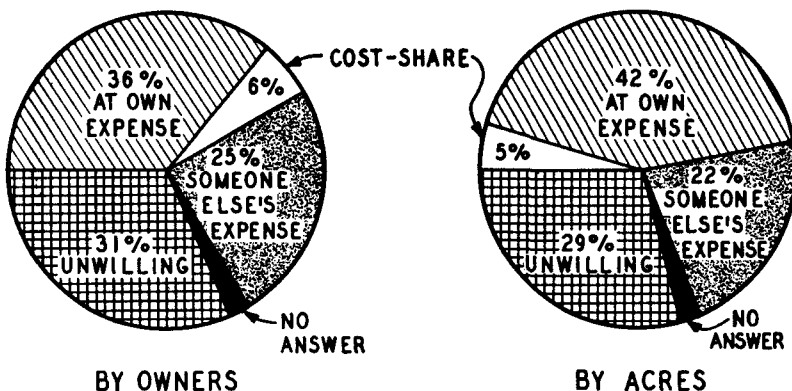
TABLE 3 — GAME MANAGEMENT ACTIVITIES OF OWNERS.

Activity	Number of owners*	Percent of all owners	Number of acres	Percent of total acres
Limit hunting; post lands	10,400	3	1,529,300	5
Maintain food or cover; feed game ...	61,100	15	6,484,100	21
Stock game	14,700	4	1,808,400	6
Control predators	300	..	152,900	<1

Over one-third of owners willing to improve lands for game at own expense

Thirty-six percent of the owners are willing to improve their lands for game if they are given free professional advice. Six percent are willing to share in the expense; 25 percent are willing if the work is done at someone else's expense. The remaining one-third are unwilling to have their lands improved for game (Figure 6). Altogether, over 21

FIGURE 6 WILLINGNESS TO IMPROVE LANDS FOR GAME



million acres can be improved for wildlife. Thirteen million acres is owned by landowners willing to do something at their own expense, given free technical advice.

*Some did more than one activity.

A number of socio-economic characteristics of private landowners were analyzed in order to help identify that sector willing to improve their lands for game. These landowners can be identified in two ways:

- (1) by the *percent* of landowners within each discrete variable willing to improve their lands for game, and
- (2) by the total *number* of landowners within each variable willing to do something for wildlife.

The former indicates the best individual prospect; the latter indicates the largest group of prospects.

The best individual prospect is a male landowner who:
owns 500 acres or more
lives within 25 miles of his tract
is less than 30 years old
is in a professional occupation
makes between \$5,000 and \$10,000 annually

The largest group of prospects are male landowners who:
own less than 100 acres
live on their tract
are in the 40-49 year age group
are farmers
make between \$1,000 and \$5,000 yearly

Both groups need to be reached, but it is obvious that different educational approaches will have to be used.

SUMMARY

According to their owners, nearly all land holdings in the Tennessee Valley (99 percent) have some kind of game animal, most commonly the cottontail rabbit. Many owners recognize that game abundance is dependent upon land management activities which improve or degrade game habitat. A large group, however, assign great importance to abundance of predators and overharvesting to explain decreases.

A surprisingly high (43) percentage of owners do not know where to go for free professional advice or help regarding game.

Forty-one percent of the owners hunt. Sixty-nine percent allow hunting on their lands without qualification. Fifteen percent more would allow hunting if hunters asked permission. This means that over 26 million acres—85 percent of the total private land area studied—are actually or potentially open to hunting.

Twenty percent of the owners deliberately do something to increase game on their lands. Three-fourths of these provide food or cover. Others limit hunting, stock game, or control predators. Thirty-six percent are willing to improve their lands for game at their own expense if they are given free professional advice. Over three-fourths of the private corporate landowners are willing to improve their lands for game. Altogether over 21 million acres can be improved for wildlife.

Those willing to improve the land for game hold the key to wildlife development prospects in the Tennessee Valley.

A POLICY FOR THE DEVELOPMENT AND MANAGEMENT OF STATE-OWNED FIELD TRIAL AREAS

R. H. CROSS, JR.

In 1965-66, 142 hunting dog field trials were held in Virginia and sportsman participation was estimated to be 42,600 man-days. Eighteen of these trials were held on State-owned lands and resulted in 3,800 man-days of recreation. Dog training accounted for another 300 man-days.

As additional State lands are acquired we will receive more requests