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Southern Woods-Burners: A Descriptive Analysis

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SUMMARY

About 40 percent of the South's nearly 60,000 wildfires yearly are set by woods-burners. A survey of 14 problem areas in four southern States found three distinct sets of woods-burners. Most active woods-burners are young, white males whose activities are supported by their peers. An older but less active group have probably retired from active participation but act as patriarchs of the burning community. A small group whose actions are generally disapproved of by the community and who are suspected of other illegal acts complete the major categories of woods-burners. To design fire prevention programs, planners need to keep in mind that most woods-burning is supported by the community. The isolation of rural communities will require opening of new channels of communication before prevailing attitudes can be changed.

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Between 1966 and 1975, an average of 59,558 wildfires per year burned an average of 946,231 acres per year in the South .[1] These figures represent *55* percent of the nation's wildfires and 22.5 percent of the total area burned on slightly less than 20 percent of the total forest area under organized fire protection.

About 40 percent of the South's wildfires are classified as incendiary, which means that they were started deliberately without the property owner's permission. These 24,000 fires per year (80 percent of the nation's incendiary occurrence) account for over half the South's acreage loss to fire and consume roughly 350 million ft^3 of wood each year. The proportions of the incendiary problem have changed very little in the past 25 years.

The Southern Forest Experiment Station's fire prevention research work unit at Starkville, Mississippi, has been examining the incendiary fire problem for more than a dozen years. Initially, our study of incendiary fire in the South consisted of sociological surveys of residents of areas (usually counties) with high rates of incendiary occurrence. The results of this phase of research are summarized by Bertrand and Baird (1975). The research in the second phase, which is reported here, focused upon specific fire problem areas and woods-burners themselves.

Incendiary Problem Areas

Incendiary fires occur in clusters or concentrations, ranging from less than 1 mi^2 to perhaps 150 mi^2 or more (Doolittle 1978). Incendiary problem areas studied in this phase of the research process were chosen because they met several requirements:

(1) The problem had existed for at least 5 years.

(2) Fires were particularly disruptive because of number, values protected, hazard, control difficulty, etc.

(3) A reasonable probability existed for application of a successful fire-reduction effort.

(4) Local fire control agency personnel were willing to cooperate fully.

Fourteen incendiary problem areas were examined during the course of the research. Located in four States, the areas each contained about 36,000 acres and averaged about 50 incendiary fires per year.[2] All areas were in the Gulf Coastal

[1] Data **are from annual reports, Wildfire Statistics (Forest** *Fire Statistics* **prior to 1968) prepared by the Cooperative Fire Protection Staff Group, State and Private Forestry, Forest Service, U.S. Dep. of Agric. Figures are for protected Federal, State, and private lands in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.**

[2] The **standard way of expressing fire occurrence is the number of fires per one million acres, called the fire occurrence rate (F.O.R.). The F.O.R. for the average problem area was about 1,390 (50 — 36,000 ×1,000,000). By contrast, the F.O.R. for the four States wherein the problem** *areas were* **located** *was* 177 **for a comparable period, and in the counties containing the problem areas it was about 1,140. (Data from Wildfire Statistics, 1971-76, and Doolittle, 1977).**

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Plain except two, which were in the Appalachian Plateau region.[3] Four problem areas were totally or partially inside a National Forest boundary. The remainder consisted entirely of privately owned lands.

Field Methods

We adopted a standard research design that is best described as a case study approach utilizing observation and interviewing (Dean and others 1967). We established five data categories to guide the field investigator in data collection: (1) the nature of the fire control agency, (2) the nature of the local social organization, (3) the characteristics of victims of incendiarism, (4) the characteristics of residents, and (5) the characteristics of incendiarists. The broad categories were expanded into nearly 50 subcategories.

In close collaboration with the appropriate fire control agency, we selected the general area (county, for example) for a study and assigned a field investigator. The investigator usually was a graduate research assistant with academic training in either forestry, sociology, or both. Before making the final selection of a problem area or areas, the investigator spent several days consulting local fire control agency personnel. Officials of agricultural agencies such as the Cooperative Extension Service and Soil Conservation Service were contacted also during this initial period in the study area.

In preliminary interviews with agency personnel, investigators acquired a list of key contacts in the study area and made a rough delineation of the boundaries of local rural communities. These boundaries were checked during subsequent interviews with residents and adjusted as appropriate. Interviewing within the rural communities began with the key contacts. Besides supplying information about the problem itself, these initial respondents suggested others who could contribute information. This technique was used in selecting respondents until subsequent interviewing yielded only corroborative information. Nearly 600 persons were interviewed.

Data Analysis

The raw data from the field investigations consisted of hundreds of pages of notes, most written immediately after an interview. Initial analysis of these data began in the field, as the investigator placed information from each interview into the appropriate categories.

After leaving the field, the investigator subjected the notes to a form of content analysis (Costner 1965, Selltiz and others 1964). The primary objective of data analysis was to develop a composite picture of woods-burners themselves—those individuals identified either by name or by characterization as people who set fires in the woods without proper authorization.

Characteristics of Woods-Burners

Most residents interviewed claimed to know or suspect the identity of one or more woods-burners; a few identified them by name. Six convicted incendiarists and six other persons who admitted to fire-setting were included among respondents. We found that characterizations of woods-burners were amazingly consistent.

Personal Characteristics[4]

Most active woods-burners identified in this research were young, white males. Most were in their early to mid-twenties, were married, and had either finished high school or dropped out within 2 or 3 years of graduation. Most were unemployed or employed part-time. Practically all had lived in the same area since birth except for brief absences, usually for military duty. The overall level of living of most woods-burners was quite low by national or regional middle-class standards, but only slightly below average by local standards.

A second group of woods-burners we identified may be more numerous than the first group, but are not as active. They are also white males, but are older (those specifically identified averaged 46 years), not as well educated (a reflection of the larger population of that age), and generally enjoy a higher standard of living than the younger group. These older woods-burners probably have retired from active participation, act as the patriarchs of the burning community, and help to perpetuate the woods-burning custom.

A third group of woods-burners were characterized by respondents as no-account, lower-class, social outcasts, a conception of woods-burners commonly held by fire control agency personnel. Some of these burners had been in trouble with the law for various illegal acts and were looked upon with disfavor by most of their neighbors. Their personal characteristics are too variable to

[3] The location of these physical divisions can be found in A Forest Atlas of the South (USDA Forest Service) 1969, p. 5.

[4] A more detailed description of the personal characteristics of over a hundred woods-burners may be found in Dunkelberger and Altobellis, 1975.

permit further characterization.

Few formal organizations existed in the communities we studied, and woods-burners did not belong to the few that did. The church was the only exception, and only about half the younger burners attended its services. The older group was somewhat more active in organizations. But rural residents as a whole are non-joiners, so formal organizations are poor media for communication with them.

The younger group of woods-burners bordered on being loners, associating only with members of their immediate family or one or two close friends. Their favorite pastime appeared to be hunting, either alone or with only one or two friends. Some hunted deer as members of larger, informal confederations, but none belonged to formal clubs or sportsmen organizations. In fact, some resented such groups because of the perceived unfair advantages they gain in hunting leases and expensive equipment.

In most instances, woods-burners were not harshly regarded by other members of the community. For example, in one study involving four communities the investigator recorded 56 responses by residents regarding woods-burners. Thirty (54 percent) were favorable, and 26 were unfavorable. But **13** of the 26 unfavorable comments came from residents of one community where the woods-burners in question were strongly suspected of being involved in car theft, drug trafficking, and other felonious activities. This left only 13 negative responses scattered throughout the other three communities.

Attitudes and Beliefs

Regarding Woods-Burning. The woods-burners we interviewed were unanimous in their belief that fire is essential in man's treatment of the forest. The desirable frequency of its application was reported to be from 1 to **3** years. According to the woods-burners, fire has several benefits:

1. Clear undergrowth-thick underbrush is seen as a threat because it is unattractive and provides fuel for a potentially large and damaging fire, a habitat for forest pests (ticks, red bugs, snakes), and a nuisance to hunters.

2. Eliminate pests-fire is believed to consume the pests themselves as well as their habitat.

3. Facilitate wildlife and cattle management—fire, it was reported, greens the grass, puts tender shoots on shurbs for deer, causes pine mast (seed) to fall for quail and turkey, and enhances growth of certain legumes upon which quail feed.

4. Facilitate timber management-fire is believed beneficial in preparing the ground for seed fall, controlling certain tree diseases, and killing the pine beetle.

Woods-burners are ambivalent about incendiarism. Most are fully aware of the illegality of the act and about half even assessed the usual penalties as fair. However, they feel justified in the practice because they believe that the community supports woods-burning and only fires that damage or destroy valuable property should be illegal. Both beliefs are shared by most residents of incendiary problem areas.

Regarding the first belief, woods-burners and many other residents expressed the view that most local landowners want fire in their woods periodically. (Some landowners confirmed this desire.) Other owners, like the government, corporations, and absentee individuals, simply do not recognize the benefits of fire and so do not burn their woodlands or do so too infrequently. Some people even think that woods-burners are performing a valuable service for these landowners and should not be punished.

The second basic belief distinguished clearly between harmful and beneficial fires. Harmful fires destroy houses, barns, and mature trees, but beneficial fires produce one or more of the beneficial effects described. Harmful fires often are associated with other unlawful acts, like car theft and whiskey making, of a few individuals or are acts of vengeance; beneficial fires are started for practical, functional reasons.

Regarding Forest Landowners. We encountered a wide range of attitudes toward ownership and management of forest land. The traditional tendency to regard the forest as free and open still exists in most areas we examined, so regulations and practices that impede free entry and use are met with resentment and, at times, retaliation by the offended residents. In general, the more restrictive the practices of a landowner, the more likely that his land will be burned-although the fires usually are intended to be more irritating than destructive. Corporate landowners are perceived as most restrictive and government as least restrictive with individual owners falling somewhere in between. [5]

[5]The relationship between class of ownership and incendiary fire occurrence rate was as expected in a recent survey of 77 fire problem areas; corporate land was highest followed by absentee private and other private. (Doolittle 1978).

The Forest Service is the only government landowner represented in the areas we studied. It apparently ranks highest as a landowner/manager for two central reasons: (1) use of national forests-particularly for hunting-generally is less restricted than use of private lands; and (2) the Forest Services hires local residents but corporations rarely do. This is not to say that the Forest Service is looked upon with favor by all. In fact, 80 percent of the woods-burners and half of all respondents opposed some of the agency's policies or practices.

Specific actions that alienate residents from the Forest Service are closing woods roads, restricting or regulating livestock grazing, developing recreation areas around community swimming holes, charging for fire suppression on private land, managing timber in a way thought to be detrimental to wildlife, and threatening and fining individuals for dumping trash on national forest land. However, the overwhelming general gripe against the Forest Service was that the district ranger and his staff (the "office people") never come around to visit and explain what the Forest Service is doing and why. If there is contact between a resident and an official of the agency, it either is initiated by the resident or its purpose is to censure a resident for some wrong-doing. Woods-burners are more nearly unanimous in this assessment of the Forest Service than are other residents, but the number of comments regarding infrequent and impersonal contacts is simply too large to ignore.

As noted already, the corporations and the individual landowners fared worse than the Forest Service on the landowner prestige scale. Many of the owners of large tracts live outside the communities and, as far as the residents know, rarely come around. Thus, this landowner group is somewhat enigmatic, and their treatment by woods-burners varies depending upon the woods-burners' perception of each owner.

The landowning corporations (usually large wood-using companies) are considered the most restrictive and impersonal of all landowners. Rarely does a resident know or have contact with a company employee." To many residents of fire problem areas the profitmaking emphasis of large companies translates into exploitative practices. The corporations seem to have everything the residents do not: wealth, power, influence, control. Practically the only kind words field investigators heard about the companies pertained to their prescribed burning practices. In this area of management, companies generally are regarded as superior to other landowners because they burn more.

Although the States owned no forest land in the areas we studied, the State forestry agencies certainly are important, even central, elements in the wildfire situation. All forest landowners except the Federal government rely heavily upon the State agencies for prevention, detection, and suppression of fire. Also, most State agencies offer a hazard-reduction burning service to individual landowners on a fee basis. We found that, in general, State forestry agencies are highly regarded by most residents of problem areas-including woods-burners. In fact, some residents of fire problem areas feel sympathetic toward the State agency because many fires it has to fight are started because of antipathy for the landowner, not the State. Only rarely were "dislike for the State agency" or "to see the State employees work" mentioned as motives for woods-burning.

The most likely reasons for the relatively high regard for State agencies are (1) they employ local residents and (2) they are engaged in fewer controversial activities than the forest landowners. In most instances, State lookouts and fire crewmen were people whom local residents knew and visited with informally on occasion. The image that residents-woods-burners and non-burners alike-have of the State agency normally is based upon whether or not they like the employees they know.

As far as residents of fire problem areas are concerned, the State forestry agency is only a fire-fighting outfit. Even those few residents who are aware that the agencies are capable of providing other forestry services state that they do nothing but fight fire.[7] Practically all negative comments made about an agency's activities related to fire suppression: cutting fences to gain access to a fire, causing erosion by plowing deep fire lanes, charging landowners for suppression, etc. Residents are generally unaware of any kind of fire prevention activity in these areas.

[6] This is indicative of the fact that corporations seldom employ local residents. In one instance where two corporations owned considerable acreages in the area, one employed a local resident while the other did not. The first corporation was held in higher esteem and experienced fewer fires than the second.

[7] In view of the many fires that occur in the areas we studied, this perception often was accurate.

Motives for Woods-Burning

Researchers and other investigators have been asking why people set fire for at least 50 years, and the answers have changed little: grazing, grudge, hunting, jobs, meanness, pests, retaliation. We heard these and more during the course of this research. The twelve woods-burners identified by name illustrate: five had burned to clear the woods of pests and undergrowth; two attributed their burning to hunting; one indicated that mischief was the reason he set a fire; one claimed that his burning resulted from a conflict with the Forest Service; one was a seasonal member of a fire suppression crew at the time he set a fire; two denied (in court and to our investigator) having set the fire for which they had been convicted, but people in the community speculated that they had done it for a cattleman.

Although it was not unusual to hear the full range of motives in a study area, each area had its leading two or three. These leading motives often changed from community to community, but in all cases, the reason related by an actual burner conformed with one of the leading motives stated by his neighbors. Also, there was evidence that a motive can change to fit the situation. In one area where a stock law was being vigorously enforced for the first time, hunting had replaced grazing as a leading motive for burning.

Conclusions

Two general conclusions about woods-burners and their environment can be derived from the descriptions we have presented.

Most Woods-Burning is Normative Behavior

Most woods-burners encountered or described by others during these investigations were acting out roles that to them are completely justified by local standards. These *normative burners* consist of two subtypes; *active burners* and *passive burners,* whom we have already described. The rural communities where the normative burners live are isolated pockets of traditionalism orientated toward the past and the status quo; change is resisted. The family and informal social groups are the major agents for teaching cultural skills, so children form their basic beliefs about fire quite early. These beliefs are continually reinforced by the frequent demonstration that fire has desirable effects. Although not all residents of these communities will actually set fires, most will condone the woods-burning done by others. Only when fires are destructive by community standards or are set by undesirable, *deviant burners,* will local opinion be on the side of landowners and protection agencies.

Rural Residents **Are Socially Isolated From Forestry Agencies**

Open, active, two-way communication between woods-burners or their neighbors and officials of forestry agencies (public and private) are, for all practical purposes, non-existent in the areas we studied. When the agency has a grievance (a fire, for example), its contact with the resident involved is official, formal, and final. Conversely, when a resident has a gripe (a woods-road closed, for example), he has no authority, no convenient communication channel, and no appeal. So residents feel powerless, for they perceive that they have no control over the environment in which they live. Most of these people express their frustrations verbally only; a few retaliate with actions-a fire, an act of vandalism, perhaps a game law violation. However, the acts of these few are supported by the majority.

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Describes three groups of woods-burners identified in a survey of 14 fire problem-areas in the South. Also explores prevailing attitudes toward woods-burning in these rural communities.

Additional keywords: fire-concentrations, incendiarism, prevention.

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