

RURAL LAND POLICIES IN RELATIONSHIP TO WILDLIFE PRODUCTIVENESS

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Until relatively recent times the policies of land management in relation to the game production of rural areas has not been considered an important phase of wildlife management in the southeastern United States. At least if this relationship has been considered, it has not received the publicity it so greatly deserves.

Only in the last few years have the game managers realized that the reduction of the hunter-success figures has not been due to some unaccountable disappearance of the game, but rather has been primarily due to the disfigurement of the ecological factors of the game species. Areas which were once considered excellent for our quail are now furnishing very little sport to the hunter and his brace of dogs.

Every summer the individuals who are in the field sincerely predict a bumper crop of birds, and in the recent years the bumper crop has failed to materialize. Yet, should we ask a farmer, cattleman or a sportsman-hunter what the reason might be, the answer would inevitably be either predators of some kind or another or the wet weather which drowned the small birds before they reached shooting size. It would appear rather obvious that all of the aforementioned factors were most prevalent when the birds were so abundant.

Doctor Gabrielson amply considers the human psychology in his book entitled *Wildlife Conservation*. It appears that in agreement with his book, we have endeavored to look at our game conditions with the aid of opiates in the form of factors which we have carefully predetermined beforehand are quite uncontrollable.

Game Management in the fundamental sense of the effort cannot possibly be anything but the management of the ecology of the game species. At the present time the rate of destruction of our game habitat is proceeding at far greater rate than we are reconstructing. The installation of refuges, as much as we like to point with pride to these efforts, are actually one of the aforementioned psychological opiates. In the long run, the only run that game administration should consider, the creation of refuges are mere establishments of small islands of sanctuary in a sea of ecological destruction which is slowly but surely inundating our game areas. This is not to imply that refuges are useless, but it cannot be believed that they are the entire answer.

Many ornithologists and mammalogists pride themselves in their so-called superior activities over the fisheries' biologist. Before we start to crow too loudly we should ask ourselves if we, as state agencies, have a program of anti-land pollution as do the fisheries' boys in their anti-stream pollution.

Many of us are in the southeastern region today because we believe in the future of this area. During the late war, Atlanta tripled in population. At the end of the war the rise did not level off as predicted, but has kept growing until the place is bulging at the seams. What has happened there has happened throughout the entire southeastern United States. As yet, the result that will effect us the

most has not been too apparent. Agriculture is just about as far behind in meeting its demand as we are, and that is a fact in our favor, but agriculture is gaining momentum at a greater rate than is game management. To attain this momentum, agriculture has intensified its efforts and utilized modern equipment. While the forces of agriculture are riding on John Deeres and Farmalls, the conservationists are astride the Missouri mule. The hedgerows of Georgia and Mississippi are feeling the pressure of the plow, and the drainage ditch of Louisiana has come under the influence of the mechanized flame-thrower. The pineland cover has been burned many times to increase the supply of Naval Stores. The Appalachian Mountains have confined their reproduction under a canopy so dense that sunlight never reaches the small reproduction in the under-story. The browse so desirable to the deer of the mountains is not to be found. In short, the edge effect of Leopold is leaving us at an amazing rate.

The fact that makes the southeast as great a potential game area as it is, is the fertility and the grow-ability of our soils. Yet it is these best areas for game that are receiving the most concentrated treatment from agriculture, lumbering, and cattle. So we in our divine wisdom acquire 25 thousand acres of land not fit for growing cut-grass and tack our little sign saying that here is a refuge. The game will grow here because we say that it will. Yet just outside our refuge, across the road perhaps, Farmer Jones is plowing under another hedgerow and cleaning up that old brier-patch in the back forty.

There are two sides to every question, for it takes a difference of opinion to make a horse race. First consider the situation of the farmer. There is a demand for his products as never before, and with the increased demand has followed the increased prices for his products. Why shouldn't he intensify his efforts. It would take considerable convincing to make him do otherwise.

Perhaps the greatest threat to our southern quail is the increase of cattle production. South Georgia can support one head of stock per acre per year on a year-around grazing program. To the cattleman that means a \$200 income per acre per year. In addition to this what is the monetary profit in the production of one quail per acre, or twenty quail per acre for that matter, that is, profit that is 100% the farmers.

The pine-flats produce Naval Stores, but to get the colored labor into the pine-groves to collect the resin, it must be burned to remove the snakes as well as to speed up the collections. If the fire gets out of control, there is no hard feelings between the manager and his neighbor for the neighbor was going to burn out his grow anyway.

Hogs enjoy the freedom of the hardwoods to root for acorns, insects and other food. Which brings the most on the open market — a dozen fat hogs or three turkey that cannot be sold under penalty of law?

In our past experiences we have found that the pigs and hogs form active competition with the deer and turkey of the area for the available foods. It is hardly conceivable that the average farmer would rather support three wild turkeys than a two-hundred pound pig.

Is the danger of a fire and the destruction of the trees in the mountains worth the cost and the inconvenience of a program of patch-logging so that the deer can acquire the leaders of the second growth?

In our Pickens County Refuge, an area of 17,000 acres in the southern extremity of the Appalachians, we have repeatedly suggested the patch-logging

method as a means of producing food for the deer of the area. The owners agree that such a system would be desirable to the deer populations, but that the cost and the danger of fire offsets the advantages of the system.

This is the reasoning that the game technician must overcome, and unfortunately for our side the reasoning is based on a living necessity and not on a leisurely afternoon in the field hunting for turkey, deer or quail.

For many years the conservationists have tried to find a meeting ground for the tiller of the land and themselves. By most agencies connected with these activities it has been a give and take proposition, but with the game administrations it has been principally take, and very little give. We have offered to build up his game populations, which is to our benefit, but what have we done that he can consider as beneficial to his land practices?

Prior to ten years ago, the Commissions and Directors established seasons, collected revenue from license sales, all of which had as its source the removal of game from the rural areas, and yet these same individuals did nothing about restocking or building up the game populations that were on the route of depletion. Fortunately, through the means of Federal Aid, and an increased understanding of the game populations, this situation has been eradicated an appreciable amount, but there is still a long way to go before the balance between the game administrations and the rural game populations are in complete harmony.

First it must be realized that as long as the present demand for the products of agriculture and the forest continues to exist there will be very little effort made on the part of the suppliers to reduce the amount of their harvest. Rather than try a complete revision of rural policy, a program of modification on the parts of both parties must be attempted. Many will state that a program of crop-pasture-game rotation is impossible. If something is needed as acutely as such a system of rotation it must not be called impossible. There is an answer somewhere if we are persistent in looking for it through our research programs. Durward Allen is working on a farm-game program at Patuxent and many northern states are embarking on such programs. Some of our own states, most of them I believe, are supporting Lespedeza programs, but I strongly feel that while Lespedeza is beneficial to the quail, it is not the entire answer to all of our quail problems, and very little research has been done on the management of the other small-game.

Stoddard in his now famous "Bobwhite Quail" has outlined many of the procedures and given many of the answers to the quail situation, but the departments until only recently have had neither funds nor the personnel to bring into practice many of the practices he has outlined. Some steps in this line have been taken, but are we quite sure that we have discarded the methods that have proven unsuccessful and substituted in their place the more beneficial methods proven by Mr. Stoddard and other investigators.

We are all willing to embark on a dove program to find out the routes and ends of their travels, but how about someone starting a program of planting the necessary foods so they can eat while we determine whether or not they are nesting in Kalamazoo, Cleveland or Ithaca.

If cattle are grazing out our quail and turkey cover, let us try to convince the farmers that we should plant food and cover crops in places not suitable for cattle. We may be able to build up our turkey flocks in the refuges, but when they are

turned loose on open land for hunting let us try to give them food and cover so they will not starve to death before some nimrod shoots them down. Such a program should be started now, and not six months before our refuge population are built up to the release point. It is my guess that if this was done that perhaps the refuge birds would be in the minority.

In our over-burned pine lands why does not some radical jump in on a controlled burning project. If someone doesn't we are all going to get burned by public criticism about the dire lack of hunting populations.

There is considerable confusion in the minds of game managers regarding this question of controlled burning. Most of us agree that there is a place for this activity in our management but after that statement there is very little agreement.

The principal question appears to be how much, and where. Should fire be used as a clearing and cleaning agent only, should it be used as a control over the ecological processes from one biotope to another, or should it be used for both? If it should be used for both, who has the basic information on plant succession available for publication and consumption by others. Keeping the information in your head and nodding sagely is not benefitting our profession or carrying out the work to the desired end. Get the information down on paper so we can all use it. I would dare say the southeast publishes fewer informational bulletins than any other area in the United States, and I mean "Trade Journals" — not the usual yarns that appear in daily and Sunday papers.

The presence of hogs in our turkey and deer range certainly is not conducive to a well fed game population. Fenced and controlled grazing has been tried in some places, and Iowa and Wisconsin farmers are just as financially independent as those of the southeastern states, and surely the pigs are worth just as much.

Agreements between the landowners and departments could furnish methods of patch logging systems which would open the forest cover for tender second growth. The agreements would have to be such that the revenue derived from the sale of the timber would help offset the cost of the project, but it could be done, and eventually will have to be done.

The graphs on the projection screen will show the trend of the rural production from 1920 to 1945. In many cases there were figures that I was unable to obtain, but the general trends are there for all to see. The past is easy to ascertain, but what of the future? It may be noticed that the numbers of farms are decreasing while the size of the farms are increasing. At the same time note that the amount of crop failure is getting smaller due to the increased efficiency and the better methods of agricultural land management. It is obvious from these figures that there is less and less land being left fallow or uncultivated for the game habitat. Some of the large increases in farm sizes is due to the modern system of absentee ownership for the pure and simple reason of creating a farm at a loss for the purpose of tax evasion.

To say that all of the large plantations operate in this manner would be doing an injustice to the majority whose plantations are on a self sustaining basis. These areas may be considered as the finest game areas in the south. Bob Woodruff's Itchaway Plantations, Springwood owned by Mr. Hendon Chubb, and the Wildfare Plantation of Mr. John Grant are all examples of incorporating game management into land utilization and keeping both on a paying basis. Unfortunately, but understandably, these areas are closed to public hunting and for our purpose can

serve only as examples of what can be done under intensive management. For our purpose these areas might as well be forgotten as a source of hunting enjoyment to the average hunter, and it is the average hunter that we must be thinking about.

In the future, if a war should once again pile down around our shoulders, we will need increased rural production for every phase of the operation. Our allies and ourselves as well, will be dependent on these supplies for our continued existence. Should it remain in a state of armed neutrality such as we are living in today, we will continue to feed the forces for democracy on a worldwide basis, as well as meeting the increased demand for domestic sources. In either event, our game habitat will be sorely pressed. Management should prepare to meet these future conditions at the present time and not wait until we are pushed into a corner by the pressure groups.

Many statements in this paper may be considered as radical and impractical. Certainly some of the foundations laid down by Gifford Pinchot in Forestry, the programs of Gabrielson, and the theories of Leopold were considered as radical by the conservatives, but who would deny those foundations, theories and programs today. I sincerely believe that the time has come — in fact it might have been here for some time — when drastic-radical action should be taken, or are we to be tied down with false pride in our so-called professional reputation and conventions that someone else laid out years ago. It would pay us to remember that in a profession as young as ours claims to be, our continued success, perhaps even our survival, depends on developments made by men tired of convention and false pride. Who among us has the foresight and the courage to be the Pinchot, Gabrielson or the Leopold of tomorrow.

We all know that increasing pressure of all types is being exerted on our game, but, and an all important but, are our game populations keeping abreast of these pressures? Our game problems of today are not the same as those of twenty years ago. Ten years ago the farmer was not asked to supply food for our allies overseas, he was not confronted with the same domestic demand which by itself is over half again as much as it was. To state it simply, the same land is asked to produce more than twice as much. To do this, the farmer must enlarge and intensify his agricultural activities, while at the same time the hunting pressure is doubling on the other side of the game problem. Our game is in what might be called a "big squeeze" which is growing tighter every year. The salvation of our game populations lies in a program composed of farmer-game management collaboration, incorporating methods of conservation of our game resources to his land use policies. When this program has been successfully established, backed by a system of well-chosen, well-managed refuges, working side by side with farm-game research, the rural areas will once more supply us with the fame and the hunting that we are asked to support and manage by the paying public.