

WILDLIFE MANAGEMENT ON THE VIRGINIA NATIONAL FORESTS

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Few wildlife programs have attracted more widespread interest and support than the joint efforts of the Virginia Commission of Game and Inland Fisheries and the U. S. Forest Service under what has come to be widely known as the "Virginia Plan." Under this program, nearly one and one-half million acres of the Jefferson and George Washington National Forests are being systematically developed for public hunting and fishing. I might add that few programs have been more widely publicized by various writers contributing to wildlife literature. The purpose of this paper is to analyze some aspects of the operation and to report on some of the techniques that have been evolved by workers on the ground.

The Virginia Plan is a remarkable example of cooperative endeavor, under which State and Federal agencies have effectively pooled resources and manpower in behalf of a common cause. It was not the creation of any one man's mind. It is a composite program resulting from ideas of many interested persons. It apparently had its origin in the early efforts of Justus H. Cline of Stuarts Draft, Virginia, to create the Big Levels Game Refuge back in the early thirties. John McNair who was Supervisor of the George Washington Forest at that time and A. R. Cochran, who was District Ranger on the area from which the refuge was carved, had the vision to get behind this project and give it their full support. Success on this relatively small area demonstrated the possibilities for broader application of the three-way alliance between the Game Commission, the U. S. Forest Service and sportsmen. Former Game Commission Director Carl Nolting and Executive Secretary M. D. Hart threw the weight of the Commission behind this broad program and T. E. Clark, who was first associated with the Forest Service and later with the Virginia Commission of Game and Inland Fisheries, filled in many details and refinements that only a technician could supply. Thus the "Virginia Plan" came into being and one wonders why this approach to wildlife management on public lands did not develop earlier.

Equally important as the founders of the cooperative program is the long list of men who have adapted it to meet changing conditions through the intervening years to keep it functioning at top efficiency. Prominent among this group are technicians assigned by the state to work under various Pittman-Robertson projects. In probing the background from which the Virginia program developed, I am led to the conclusion that it owes its success to a small group of men possessing mature judgment and good will, who recognized the need for wildlife production based on long range plans and charted a course of action unhampered by prejudice or fear.

The Virginia program has been in operation since 1938. Official estimates for the 1949 season indicate use by hunters, fishermen and trappers in excess of 400,000 man days. At the beginning the cooperative program was financed entirely by receipts from a \$1.00 National Forest hunting and fishing stamp and for the eleven-year period ending January 1, 1950, more than ¼ million dollars has been

collected from this source. But the scope of wildlife improvement work has been greatly enlarged as a result of new projects financed under the Pittman-Robertson program. This phase of management has brought the U. S. Fish and Wildlife Service into the picture as an active collaborator.

From the very beginning, the key man behind wildlife progress on the Virginia National Forests has been the resident wildlife manager, who is responsible for protection, restocking and habitat improvement work on definite areas. Usually these managers live on or immediately adjacent to the forest, where their presence is a factor in curbing game law violation 24 hours every day. In many ways the work of the resident wildlife manager under the Virginia Plan parallels that of the game keeper familiar in European wildlife management, except that his efforts are for the general public rather than a favored few. The wildlife manager is a potent force in preventing and apprehending violations but the real tools of his profession are the planting hoe, brush scythe and the axe, rather than the sixshooter. His work is a unique combination of farming, forestry, animal husbandry and law enforcement.

The cooperative development program in Virginia is based on the concept that wildlife is a product of environment. Without minimizing in the slightest degree the importance of game and fish protection, it should be apparent to all that we cannot regain lost wildlife resources by merely posting a guard over dwindling populations. We must launch a counter-attack in the form of long-range habitat development and restoration to provide a favorable environment for game and fish production. This is the guiding principle behind the joint action programs on the cooperative area in Virginia.

The Forest Service, in carrying out a resource management program on millions of acres, has broken its job down into units, normally ranging from 100,000 to 250,000 acres, with a district ranger in charge of each. For wildlife management purposes, a further breakdown has been made to provide units averaging approximately 20,000 to 30,000 acres. Income under the Virginia program has not yet been sufficient to bring all national forest land under wildlife management. Units have been established where Government ownership is most complete and where natural boundaries tend to provide logical lines of demarkation. Some of these wildlife management units are so remote that it has been necessary to build quarters in which to house wildlife managers. In addition, extensive use has been made of portable patrol cabins which provide overnight facilities for the manager and his work crew; thus minimizing time lost in travel. Only under a long term program for wildlife improvement, can investments in capital equipment of this type be justified.

The framework I have described provides a background within which a force of approximately 25 resident wildlife managers are carrying out a program to develop the two Virginia Forests as productive hunting grounds. Each of the wildlife managers on national forest land is provided with a small allotment of funds with which to employ local labor and, at times, the total wildlife work force may run as high as 100 men on the two Virginia Forests. Plans and instructions are provided by technicians from the Commission of Game and Inland Fisheries and the district ranger and periodic inspections are made to insure carrying out work in accordance with plans.

While national forest stamp revenue has exceeded one-quarter million dollars over the past eleven years, a little mental arithmetic discloses that this amounts to

less than 20 cents per acre. Current receipts are running between 3 and 4 cents per acre, per year. You men who are engaged in management work know that 3 cents or even 20 cents won't go far in manipulating habitat on an acre of land at present day prices. Wildlife workers assigned to the Virginia Forests have found that they can accomplish much more with the limited funds available by tying their activities closely to timber sale operations. This is an important point, for it is doubtful if income from wildlife alone will ever be sufficient to provide adequate habitat development measures on forest areas. Under this tie-in between the wildlife manager and the Forest Service ranger logging roads, sawmill sites, loading decks and other spots in the forest cleared incident to timber harvesting are planted to grasses and shrubs to provide game food. In some cases the ranger marks selected areas of timber for clear-cutting by the operator and even collects a stumpage fee for the material removed. Often the resulting openings are taken over by the wildlife manager for development as improved wildlife habitat at a considerable saving in labor and expense.

In large, unbroken stands of hardwood timber clearings have been made and planted to conifers to provide roosting and escape cover. Other clearings have been allowed to sprout and provide browse for deer and small game. In still other cases, cleared areas may be disced and seeded to orchard grass, ladino clover, and fescue and other nutritious foods for game. Often lime and commercial fertilizers are used to step up food production on these key areas. Obviously such work cannot be expected to pay its way on a single year's return but under the cooperative program, national forest areas are dedicated to coordinated use which includes wildlife production.

As the program expands, many new techniques are being developed in behalf of wildlife habitat improvement. For example, the need for evergreen cover by the ruffed grouse is being met by removing or girdling competing hardwoods over young pine in order that the latter may grow up to provide shelter and concealment for the birds. This practice also favors the wild turkey. Forest Service money reserved for timber stand improvement is utilized to supplement the acreage treated in this manner.

In some areas, it has been found that small springs which are found in the heads of wooded coves in mountainous national forest areas can be developed to provide important adjuncts to habitat for the wild turkey. By placing logs across the spring drains a small amount of water is impounded and the resulting "spring seep area" becomes saturated with warm spring water. This encourages the growth of succulent green foods when they are most needed. In addition, the higher soil temperatures tend to melt snow quickly and provide access to bare ground where birds may find seeds, grit and nuts.

Under the cooperative program, Forest Service personnel have acquired a new interest in the important wildlife resource. Opportunities for coordination between wildlife and forest management exist at many points. For example, den trees may be preserved for use by squirrels and other wildlife at the time timber is marked for harvesting.

Under the coordinated program of land management, timber access roads are located where they will do the least possible damage to stream banks and where soil loss will be minimized. Many of these timber roads are being taken over by wildlife managers and maintained in permanent grass cover as food strips and to provide travel lanes which will help disperse hunters over the forest area.

Hunting and fishing use of the forest are being given increased consideration when road and other development plans are made. In rounding out land purchases for eastern national forests, emphasis is placed on acquiring title to small interior tracts, thus cutting down on the amount of boundary to be patrolled by wildlife managers and simplifying wildlife administration.

Wildlife managers have made numerous clump plantings of conifers and thousands of important food producing shrubs have been planted throughout the national forest areas in Virginia; among these multiflora rose, firethorn, holly, wild raisin and thorn apple. In addition, many thousands of native shrubs have been transplanted or pruned and released to stimulate their production of food for wildlife. Some success has been had in transplanting chinquapin for wildlife food production. Seed from key wildlife plants is collected and sent to the Forest Service nursery at Parsons, West Virginia, in return for which planting stock is made available.

One of the most important aspects of the "Virginia Plan" has been the close working relationships which have developed between personnel of the Forest Service and Game Commission. In some cases, Game Commission technicians have been provided with office space at National Forest headquarters. Periodic meetings between the two agencies provide for an inter-change of ideas that has been most helpful in shaping a coordinated long-range program. Executive Director I. T. Quinn and his staff participate actively in field inspections and planning sessions along with Supervisors of the George Washington and Jefferson National Forests.

Under the "Virginia Plan" the Commission of Game and Inland Fisheries has been afforded an active voice in the shaping of land management policies for a million and one-half acres in the Jefferson and George Washington National Forests. In return, the Game Commission gives the Forest Service a friendly hearing in the determination of seasons, bag limits, etc., to insure that wildlife populations will be kept in balance with food supplies and thus maintain conditions under which both timber and wildlife may flourish. Borrowing a line from corporate organization "Wildlife and forests are given equal representation on the Board of Directors." All this has been accomplished without infringing upon the administrative field of the Forest Service or the Virginia Commission of Game and Inland Fisheries in the slightest degree.