

# So You Now Have the Old Home Place

*Part 2: Forest Management*

*by James L. Cummins*

Bottomland hardwoods are an important habitat type for many species of wildlife.

In our previous article we discussed planning and developing goals and objectives for your land. We discussed conducting a resource inventory and dividing your property into management compartments. We looked at different things to take into account when deciding proper placement for the cabin site as well as ponds and food plots. Now we will delve into the different aspects of thinning and forest management.

By doing a good job restoring, enhancing and/or managing the lands and waters on your property, the fish and wildlife found on your property will be assured of having a good environment to enjoy whether your property is simply used for an occasional get-away or a permanent residence.

Timber companies have known for years what private landowners have only recently discovered – managing forest lands can be financially and personally rewarding. This management is even more rewarding when it is on your home place.

## GOALS AND OBJECTIVES

Determining what you want from your property's forests is decision number one. Do you want to focus on deer, turkey, squirrel, quail, waterfowl, timber production or a little bit of everything? My interest is the latter, with less emphasis on quail. I love to quail hunt, but our property is just not conducive to good quail habitat. My parents need a supplemental source of income, so managing for the wildlife I prefer, while keeping my mother happy, was obviously a priority. Your goals can be as specific or generalized as you like, but it is important to keep your goals attainable and appropriate for your landscape.

## FOREST INVENTORY

First, you need to find out what types, as well as the amounts, of forests exist on your land. Like any inventory, a forest inventory involves taking an account of what exactly you have, and how much of it. Forest inventories, often called "timber cruises," are usually done to determine the fair market value when buying or selling the land and/or timber. It is also important to perform timber cruises on inherited or gifted forest lands to determine the basis value. This can drastically reduce taxes



The marking of undesirable trees for cutting is often the best way to achieve the desired habitat.

PHOTO BY WILDLIFE MISSISSIPPI - RANDY BROWNING

paid on timber harvest income in the future. An accurate timber inventory is also a very valuable tool when developing land-management strategies.

Timber-cruise methods have a wide range of intensity and detail. The simplest and most intensive method would be a 100 percent tally, where every tree was measured. This method of inventory would be reserved for smaller tracts (<5 acres) due to cost. The most common inventories involve measuring a percentage of the trees that will properly represent the forest as a whole. These involve a variety of sampling methods that forest mensuration (measurement) experts and statisticians have spent centuries perfecting. Basically, all of these methods involve measuring diameters, heights and stocking (trees/acre) to obtain volume and value estimates in some form or fashion.

As there are several potential complexities in determining forest inventories (i.e. accounting for sloping terrain and actual property boundaries), it is highly recommended that forest inventories be done by forestry

professionals to achieve accurate estimates that can create a common language usable by all professionals in the field ranging from wildlife managers to real estate agents.

Managed forests not only yield large amounts of wood products but they also provide high-quality habitat for many species of wildlife. Therefore, forest management and wildlife management should always be considered together. It is important to obtain an accurate forest inventory to know where you stand and how to approach your goals and objectives.

## PLANNING

Once you have decided what you already have and want to manage for, a forester can help you with the development of a management plan. A written management plan is the roadmap to achieving your goals, and every forest landowner should have one. A good plan should cover at least 10 to 15 years and be re-evaluated every couple of years to make sure everything is on track and goals haven't changed.

Many plans start with generalizations, such as: “I want to harvest some timber in 15 years to help put my kids through college.” Or “I want trophy whitetail hunting, and I want my timber harvests to pay for the management costs.” Then you and a professional can work towards the specifics like planting rates, harvest dates and live weights!

Perhaps the most overlooked part of forest management is harvest planning. Too often, this step is overlooked by inexperienced landowners. Only after the timber harvesting has begun, or worse, is completed, do they realize that certain wildlife, aesthetic or logistic provisions should have been considered. Good management plans should include enough details to cover important issues such as:

- *Economics* – Is the harvest unit large enough to be economically feasible? What products are available for harvest? Do the financial returns meet the landowner’s goals and objectives?
- *Regeneration* – How will the stand be regenerated? Will it be planted or will you rely on natural regeneration? Should the stand be burned prior to harvest to facilitate site preparation? How long will it be before regeneration occurs?

### EFFECTS OF FOREST MANAGEMENT ON WILDLIFE

Finally, what about wildlife? There are plethoras of timber-harvesting details that can have dramatic influence on wildlife habitat. Is the size and shape

of the harvest area conducive for use by wildlife? Are travel corridors provided? What provisions have been made to protect mast-producing trees? Is there a good diversity of different-aged stands to benefit a variety of species of wildlife? This next section will address some of those details that landowners should keep in mind.

Once you’ve decided to implement a management plan, the practices you use can be as intensive as you want or can afford. The simplest forest types involve single-aged stands of a single species, such as in loblolly pine plantations. The more complex plans can involve a variety of different forest types in uneven-aged stands that require different forms of management. A diverse forest habitat can provide the necessary habitat for a larger variety of species by combining timber types, age classes and stand conditions in one area.

The wildlife value of a clearing or forest stand is affected by size and shape. For instance, white-tailed deer mainly use the outer 100 yards of a young stand because concealment has not yet developed enough for them to feel secure in the stand interior. Smaller, odd-shaped stands create a much higher percentage of edge-area that is usable by deer during early years of stand development. However, it might be much more economical to harvest a 200-acre block, than 10 separate 20-acre patches.

Characteristics of the stand interior are also important. Varied features add diversity within a forest stand and should be planned at the time of site preparation. Features such as slash piles, windrows, snags, thickets,

abandoned house sites and groups of live mast trees are all beneficial to wildlife.

When developing a wildlife-management program, it is also important to look closely at adjoining properties and to consider their influences. This consideration is a key element of forest stewardship, especially when managing small ownerships. Allowing an adjoining stand to reach a different developmental stage, before harvesting your area, results in a multifarious habitat effect. The resulting diversity would ensure three things:

1. Wildlife requiring two or more different stages can find them within a reasonable travel distance.
2. Wildlife that need only a single stage can find at least one suitable area in the forest block.
3. There is always a progression from recently-harvested cleared areas, to young stands, to older ones within the forest tract.

Protecting areas around streams is also highly beneficial to soil and water quality and wildlife. Unfortunately, some of the most valuable timber grows on highly-productive stream fronts and surrounding areas. Many benefits result from establishing streamside management zones (SMZs) where timber harvesting is limited. The hardwood or mixed pine/hardwood types, usually found in a SMZ, provide food and cover that are important to many species of wildlife in an area that is often fundamental to their survival. The optimum SMZ width for most wildlife is hard to determine. Very narrow zones (around 30 ft.) are used



Skidder trails often form the basis for a road/trail system.



Loading decks often form the basis for food plots or grassy areas.

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Trails, roads and loading decks can be planted to food plots.

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by some songbirds but are insufficient for most game species and result in more wind-damaged trees. Wider zones are better for preventing erosion on steeper slopes and more sensitive soils, and providing wildlife habitat. Again, though, there is the tradeoff of limiting the harvest of highly-valuable timber. In Mississippi, Best Management Practices set by the Mississippi Forestry Commission provide recommendations for the least ecological damage from timber harvesting. Prior to a timber harvest, it is imperative to clearly mark the boundaries of SMZs to prevent timber-harvest encroachment.

A good practice that benefits wildlife involves leaving thin strips of standing timber after the harvest for wildlife corridors. The main purpose of corridors are to provide for ease of wildlife movement across areas that are at first too open, as occurs with a new cut area, or later become too dense, such as sapling stands. These travel lanes often contain food and cover not available nearby, while the corridor borders create quality edge habitat.

A corridor is needed most in larger clear cuts (200 acres or more) that do not contain an SMZ or when used to connect two similar types of habitats that have been separated by a clear cut. Wildlife that benefit most from corridors are wild turkeys, deer and, if enough hardwoods are present, squirrels. Habitat is also enhanced for quail and songbirds. Whenever possible, the corridor should be managed with the same practices as the similar stands it connects.

The width of a corridor is important for the same reasons given for SMZs. A total width of 300 to 400 feet will ensure an interior zone that can be kept open for most wildlife. This dimension is also adequate for timber-management considerations later, when the adjoining stand has developed to the point that the corridor is no longer needed. Timber in the corridor may be cut when any adjacent stands are thinned. When the corridor timber is harvested, a new corridor can be made from adjoining stands. This moveable corridor approach has proven successful in maintaining flocks of wild turkeys.

Beyond maintaining age-class distribution, conservative stand size and developing edge, there is still potential to improve habitat conditions. Before this can be done, the landowner must be familiar with existing forest features used by different wildlife, including deer and wild turkeys. This information can be accumulated by keeping a field map to mark animal sightings made personally, by hunters or others using the land for various reasons.

Quite often, special habitats include hardwood bottoms, permanent forest openings, old house sites and wetlands. After identifying such areas and mapping them, the next step is to make sure they remain linked together to allow animal movement from one area to the next. This can be accomplished during pre-harvest planning by taking advantage of stream courses, steep or excessively-erodible sites and swamp margins. Consideration should also

be given to providing passageways to important habitats on neighboring properties.

## OVERVIEW

We have now gone over a few of the issues a landowner might come across when deciding what to do with their forests. We have tried to show how proper management and planning can provide landowners with multiple-use forests that can provide the most benefit based on their objectives. Sometimes the questions “What does this practice do to wildlife?” and “How can I better manage for wildlife?” are hard to answer. Confusion comes because every species has unique requirements and each one is affected differently by any change in the forest. Each species of animal must be considered individually if we are to understand the influence of forestry practices and outline ways of improving conditions for both. With proper planning, landowners and managers can integrate wildlife and timber-management practices that will enable them to meet multiple objectives on a single piece of land. Economics, regeneration and wildlife must all be considered to assure that the land will continue to produce timber and wildlife that future generations can profit from as well as enjoy.

In the next issue of *Wildlife Mississippi* magazine, we will discuss roads, trails, fire lanes and bridges.

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