



Wildlife Habitat Recipe #1: *Corridors*

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Habitat manipulation has been a topic of argument among wildlife biologists and foresters for many years. In order to satisfy both sides of the ecological manager's agenda, to preserve water quality, break up landscape patterns, and most of all provide wildlife habitat sufficient for the species desired, *corridors* were created.

A *wildlife corridor* can best be described as a passageway or travel lane between needs; similar to the road to the local Wal-Mart. All species, including humans, need four distinct things to survive. The first is **food**, which includes summer food, winter food, and for some

species such as turkey, quail, and songbirds, brood food. All species need available **water**, with availability being the key. **Shelter** is the third component. Last on the list is **space**, which for many years was not even considered in the overall scheme of ecosystem management, but has now become, at times, the most important of all four components.

Most species, except those that are migratory by nature, do not venture more than one square mile from the spot they were born. One square mile is 640 acres; smaller game and non-game species are often found within a half square mile from the spot they were born. Wildlife biologists and foresters who are con-

cerned with wildlife habitat management concentrate on tracts to manipulate and provide exactly what is needed in the way of food, water, shelter, and space. If one or more of these components is limited or not available during the time it is needed (known as "limiting factors"), then a particular desired species will not exist on that property. Limiting factors can be a multitude of things: limitations on the basic four requirements, disease, predators, or even the arrangement of resources.

As with most successful ventures, everything starts with a plan. Wildlife planning is essentially important to evaluate resources (food, water, shelter, and

space), estimate limitations on these resources, identify diseases and predation, and approximate a carrying capacity. "Carrying capacity" is the maximum number of animals that can be sustained on a specified area or acreage if the basic necessary resources are available. Based on the needs of a species, carrying capacity can be figured into the planning process. Adjustments can be estimated in order to build and sustain a particular species, whether it is songbirds or white-tailed deer.

As urban interface (wildland encroachment by humans) becomes more and more prevalent in the rural areas of Alabama, many species become dependant on corridors and corridor management. As the large farming sections of land become quarter-section ranches, and the ranches become 40-acre mini-farms and eventually 10-acre woodlots, corridors become the lifeline between food, water, shelter, and the very important space. These wildlife corridors allow species to move from need to need in a relatively protected habitat, and will vary in width, height, and density, depending on the species traveling among them. For example, wild turkeys prefer an open hardwood canopy so they can use their keen eyesight to protect them from predators and maintain an open flight path for escape. While on the other hand, white-tailed deer prefer thick underbrush to conceal their movements and provide browse. Songbirds, depending on their species, prefer different levels of the tree canopy (vertical diversity) to provide nesting, feeding, and brood raising. Quail



Photo by Tida Mirns

Old fence rows should be retained and vegetation allowed to grow, providing browse and shelter for the targeted species.

require dense cover during their adult life as shelter from predators, constant land disturbance for feeding requirements, and an abundance of annual grasses and forbes to attract bugs to feed their hatch. Bugging area needs are about the same with turkey poults.

Before starting your project, know and understand what natural resources are present and how they are arranged on your property. Resource professionals are available to help you determine resource availability. One of the biggest challenges facing landowners, managers, and lessees today is acreage. It is difficult and almost impossible to effectively manage for deer on contiguous acreage smaller than 1,000 acres! Landowners and land managers assume that if they provide all

the necessary requirements on a 160-acre farm that "their" deer will not leave. Wrong! It is imperative that partnerships and cooperation between landowners, hunting clubs, absentee landowners, family members, and everyone involved within a mile radius of ground zero be united so that effective management can take place. However, regardless of tract size, you **can** attract wildlife to your property by simply providing or having available those necessary things (food, water, and shelter), but in most cases the targeted species will not stay on your property exclusively. It is the need for space that catches most managers by surprise.

Diversity is the spice of life and the key to making all things involving nature actually work together. By managing our forests and woodlands to diversify the landscape, we provide all things to all species. So, let us assume that you are ready to make some management decisions about your farm or forestland, and wildlife has become a valuable commodity either for personal enjoyment or income, or maybe both. You are aware of the resources necessary to sustain a particular species, but those resources are included in your timber sale. The same resources are available in a tract to the north and a tract to the south. To keep the

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Corridors provide a method for keeping wildlife on your property for as many months of the year as possible.



Photo by Elishia Ballentine



Photo by John Pfitte

Permanent fire-breaks can serve as open corridors. Disking and planting firelanes with appropriate wildlife foods not only provides habitat diversity, but also improves tract access and wildfire protection.

species from leaving your property for more suitable resources, a corridor must be left between the two tracts, providing safe passage for the species that needs

resources in both tracts. Size of the corridor is dependent on the species.

Arrangement is also important if species such as squirrels are important to

your overall wildlife management plan (the big picture). For instance, squirrels may need summer food in tract A and winter food in tract B. While the tracts may be separate, they can still be connected by a corridor no more than one-quarter mile in length. Other small mammals, some songbirds, and reptiles do not travel far on a day-to-day basis. If forced to travel through parts of your property where management decisions have had a detrimental effect on their needs, these species will find other areas that provide the necessary requirements in available supply without having to travel for half a day to get a hickory nut. In other words, if an animal can not justify traveling a short distance for food, shelter, or water, it will move residence or perish.

Forested corridors can range from 60- to 100-foot-wide Streamside Management Zones (SMZs) to a small 30- to 50-foot-wide strip of trees or brush left from one side of a harvested area connecting to the other side of the harvested area. Even long windrows stretching from one side of a harvest area to the other provide



Photo by J.W. Hybart III

Wild turkeys prefer an open hardwood canopy so they can use their keen eyesight to protect them from predators and maintain an open flight path for escape. If turkeys are important to a landowner, an open under-story corridor should be protected and managed.

a corridor for rabbits, quail, songbirds, and rodents. If wild turkeys are important to the landowner, then an open under-story corridor should be protected and managed. If deer are important, then a dense under-story corridor might be more attractive. If both species are important, then you should leave a wide corridor, providing both an open and dense under-story (again, diversity).

Also, do not forget vertical diversity as well as horizontal diversity. Changes in the under-story, mid-story, and over-story are important to all species, whether they are feathered or not. Much of the soft mast eaten by deer, squirrels, turkeys, quail, songbirds, and others is found in the under-story and mid-story, while the once-a-year hard mast of acorns and nuts is found in the over-story. Remember that all of these elements must be present within a reasonable distance for a species to exist.

Corridors do not always include forested areas. In pine plantations and other densely grown habitat, long linear openings of native or planted grasses provide a needed corridor for species such as wild turkey, quail, and songbirds. These areas provide movement between areas of nesting, feeding, bugging, and available water sources with easy escape into heavy cover. The same areas also provide many of the feeding requirements for those species during different periods of the year. Simple ways of constructing linear openings could include “day-lighting” forest roads during thinning operations. Day-lighting is simply taking the first two trees from each row running perpendicular, or the first two rows of trees running parallel on each side of forest roads inside a plantation. On native stands, roughly clear cut the first 20 feet on each side. When the thinning operation is

When thinning a pine stand, use the area of the removed row to provide wildlife needs, improve edge effect, and offer quick escapes into nearby cover.

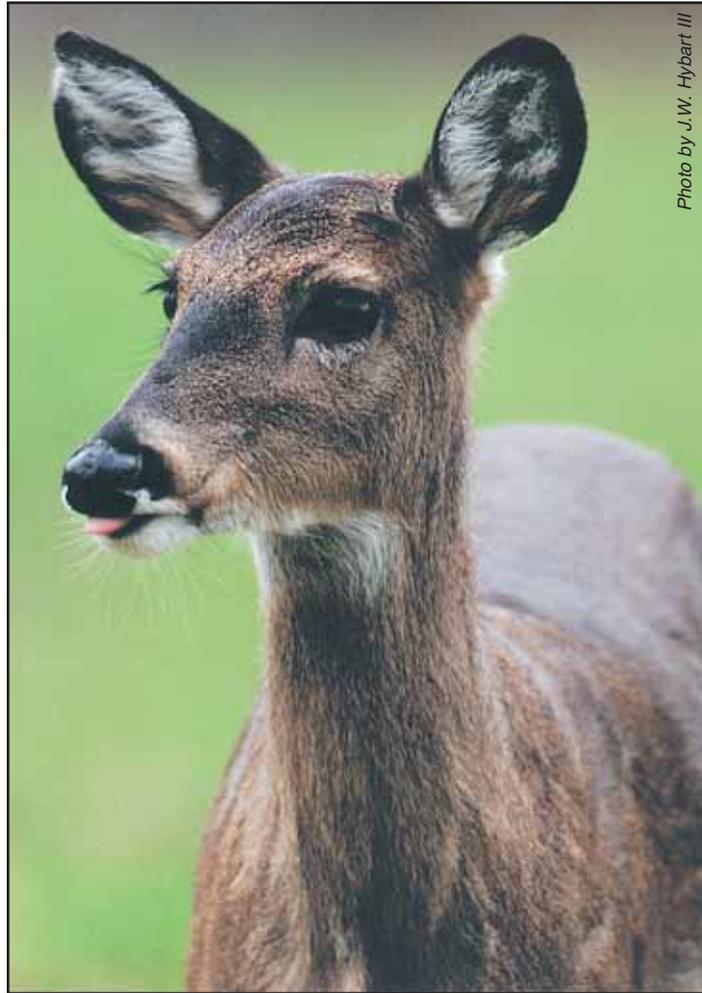


Photo by J.W. Hybart III

White-tailed deer prefer thick underbrush to conceal their movements and provide browse. If deer are important to a landowner, a dense under-story corridor might be more attractive.

over, you will be left with a 50-foot opening. This opening will not only benefit wildlife but it will also increase viewing potential, provide for drier, more accessible roads, decrease limb damages to vehicles, and improve access for future operations.

Permanent firelanes can also serve as open corridors. Disking and planting firelanes with appropriate wildlife foods not only provides habitat diversity, but also improves tract access and wildfire protection. Another example of utilizing open corridors would be to take advantage of a first thinning in a pine stand. No matter what thinning scheme you plan to implement, use the area of the removed row to provide wildlife needs, improve edge effect, and offer quick escapes into nearby cover. If your property includes open fields, retain old fence rows or allow vegetation on both sides of old field roads to grow which will also provide browse and shelter for your targeted species.

Simply stated, wildlife needs are food, water, shelter, and space, or the arrangement of these resources. Corridors are the connecting roads and a method for keeping wildlife on your property for as many months of the year as possible. 🏠



Photo by Tilda-Mirris