



WILDLIFE MANAGEMENT SUCCESS STORIES

More IS Better

By John Gruchy and Scott Edwards

Whenever Tom and Jane Heineke return from a cool winter day afield on their 280-acre Marshall County farm, it does not take them long to compare notes and decide who was in the honey hole. “I usually see the most, but it is not uncommon for each of us to see a few dozen,” Tom said. The “dozen” he refers to is wildlife – dozens of birds, mammals, and other wildlife species. Although the Heineke property holds abundant populations of white-tailed deer, wild turkey, Northern bobwhite quail, squirrel, and American woodcock, the real trophy for Tom and Jane is the diversity of wildlife species that consume the fruits of their hard work at managing the habitat on their property.

The Heinekes routinely identify more than eight species of wintering sparrows, such as LeConte’s sparrow, swamp sparrow, and song sparrow, along with 22 species of mammals including Bachman’s fox squirrels and golden mice. That is a distinct improvement from the time when they purchased the property in 2003. Their ownership

objectives for this property are to maximize the land use for wildlife. Accordingly, they began working with professionals from the Strawberry Plains Audubon Center and the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS), as well as the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) Private Lands Habitat Program biologists to help expand habitat for multiple wildlife species, including game and non-game wildlife.

To begin improving habitat diversity on their farm, the Heinekes strategically improved habitat in areas where wildlife would most benefit. First, they planted approximately 15 acres of hardwood tree seedlings along creeks and drains on their farm, essentially enhancing wildlife travel corridors throughout the property. Next, they converted 70 acres of Bermudagrass pasture to native warm-season grasses and wildflowers that greatly improved food and cover in their fields. Then they focused on controlling unwanted, invasive plants like kudzu and Johnsongrass throughout the property by using specific herbicides. Most importantly, they began

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using prescribed fire to manage the upland areas on their farm, including native grass fields, and dry upland hardwoods forests. The results from all of these improvements are outstanding.

The Heineke’s success has encouraged their neighbors to start managing habitat too. In addition to Tom and Jane’s farm, neighboring landowners encompassing more than 500 acres have started using prescribed fire as well, thus increasing the amount of quality, early-successional wildlife habitat on their local landscape. A landowner cooperative like this is critical in making large impacts for wildlife, and demonstrates that even small-acreage landowners can have a big impact for wildlife management.

One benefit of multiple-species wildlife management is that landowners can retain multiple objectives for their properties. In addition to honey production and vegetable crops, the Heinekes maintain a working farm by cutting their native grasses for hay after the nesting season, usually in mid-July. “During late winter, woodcock are doing their sky dance, and sparrows are still here. Then in the spring and summer, bobwhite quail are whistling, and we get a ton of grassland birds as well as beautiful wildflowers for our bees and other pollinators,” Tom said. Variety in ownership and management objectives is rewarded with a plethora of unique wildlife visiting the Heineke property and the surrounding countryside.

The “ripple effect” of habitat management

As Tom and Jane have discovered, the key to managing wildlife is to provide a varied array of quality habitat to meet their needs. Whether land management objectives are focused on white-tailed deer, wild turkey, waterfowl, or non-game wildlife, habitat management practices such as prescribed burning, timber management, and restoring wetlands have a ripple effect of benefit to multiple species of wildlife.

The primary components of wildlife habitat are food, cover, water, and space. In the past, game management recommendations tended to focus on supplemental food plantings and population management. While both food plots and herd management are an important component of any habitat management strategy, when implemented alone, neither has a great benefit to wildlife species that is not primarily limited by nutrition. In fact, the key to managing many species of wildlife is to improve the survival, or recruitment,



Fields on this Marshall County farm were previously managed for burmudagrass hay production.



Fields converted to native grasses and wildflowers increase habitat value for multiple species while still maintaining hay production.



Prescribed burning helps to improve native grass fields for hay production and promotes habitat for a variety of wildlife species.

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of their young. The only way to influence the recruitment of young for many wildlife species is to improve cover. Cover is critical in protecting animals from predators and harsh weather elements.

A great example of managing cover to improve recruitment of young can be learned from bobwhite quail. While many factors influence bobwhite populations, biologists will often cite the overall lack of nesting and brood-rearing cover as

the primary limiting factors for bobwhites. This tends to be revealed when landowners spend time and money planting acres of food plots with little noticeable impact on the bobwhite population on their property. Food is important, but without cover to nest and raise their young, bobwhites cannot complete their annual cycle, and their populations suffer. Managing more specifically for nesting and brood-rearing cover by killing non-native grasses, and burning fields and forests, often produces more positive results than planting food plots alone. Habitats created by managing cover for bobwhites will be readily used by an array of other wildlife species, game birds, mammals, non-game birds, small mammals, butterflies, and other insects.

Multiple objectives, multiple species

Many landowners today are faced with needing to manage their land for multiple objectives. For example, many farmers need to use their land as efficiently as possible to maintain farm profitability. It is possible for farmers and other landowners to manage multiple objectives and still provide quality habitat for many species of wildlife. All it takes is a little creativity and a good management plan.

Kit Hart manages Hartwood, his family's farm in Monroe County, for revenue from timber and wildlife recreation, two of the most common objectives across Mississippi farms. When the family became serious about managing their property, their first step was to develop a good forest and wildlife habitat management plan. "We knew we wanted to set up our farm with multiple age-classes of timber. That took a while," Hart said. "But once we got that set up we knew everything else would start to fall into place."

The Hartwood farm practices sound forest management prescriptions to produce quality timber products. The timber on Hartwood is harvested in blocks, or stands, and reforested over a number of years so that there are different ages of timber, from young reforestation to mid-rotation and mature timber, spread across the farm. This strategy helps meet their objective of sustaining timber revenue by ensuring that the farm always has a variety of timber available, from pulpwood to saw logs, as well as staggering their revenue and expenses across a number of years. Similarly, the farm has a range of forest growth stages available for wildlife, and each provides different habitat characteristics. Younger pine stands provide good, thick cover for young turkey and deer, while middle-aged stands are managed with prescribed burning to improve deer forage and cover for an assortment of wildlife species.

The Hart family also manages different timber densities. Stands on more productive soils are managed with a dense stocking of timber to increase long-term revenue, whereas stands on less productive soils are thinned more heavily to allow more sunlight to reach the forest floor in order to improve quality of life for a wide selection of wildlife. The Hart family also retains some mature hardwoods in large blocks and along stream banks and wetlands on their property to improve overall habitat diversity and water

quality. Sound forest management strategies have significantly improved Hartwood's wildlife habitat over the years.

Hartwood is an excellent example of how a working farm with a forestry emphasis can accomplish multiple species management. Much of the wildlife management effort on Hartwood is directed toward deer and turkey because of the Hart's interest in hunting these great game animals, but the Harts are also excellent land stewards and are encouraged by a variety of wildlife that occur on their property. Hartwood hosts a variety of songbirds in its pine forests and open areas, and multiple species of reptiles and amphibians enjoy the protected hardwood areas along streams and wetlands.

The more, the better

The actions landowners take while managing their properties have effects on all wildlife, even beyond their intended targets. For example, many landowners are primarily interested in managing their properties for deer and to grow larger bucks. Thus, they may implement timber thinning, utilize prescribed fire, manage open fields, create food plots, establish mineral licks, etc., all with a purely deer focus. But the reality is that many wildlife species other than deer will benefit from these very same practices, and yet some wildlife may even be hindered by these practices. All of our actions contribute to the complex process of nature that affects wildlife. For many Mississippi landowners, managing their farms and forests using sound principles and practices will not only improve habitat for desired wildlife species, but will also increase overall habitat quality and attract and sustain more species of wildlife for them to enjoy. Most Mississippians will surely agree that more wildlife is better.

State wildlife agencies, like the MDWFP, are charged with managing multiple wildlife species, including game and non-game wildlife. Management plans for public Wildlife Management Areas are often very broad and encompass a comprehensive variety of forestry, field, agriculture, and human interaction objectives such as outdoor recreation, hunting, and wildlife viewing. The MDWFP commonly works with other conservation organizations and stakeholders to plan management actions that will benefit multiple species, particularly those with declining populations or those that depend on declining habitats. For more information about managing wildlife species and their habitats, visit the MDWFP website at www.mdwfp.com.

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Less productive sites on this Monroe County tree farm are managed at a lower timber density to improve habitat for more wildlife.



More productive sites are managed at higher timber density in order to meet economic goals, but are still managed with prescribed fire to improve habitat.



Newly replanted forests, streamside buffers of hardwoods, and older pine forests provide different types of cover for multiple species of wildlife.

