



Your Side of the Fence

Winter 2018

A Publication of the Oklahoma Department of Wildlife Conservation's Private Lands Section

Using the Axe, Cow, Plow, Gun, and Match to Benefit Quail

By Derek Wiley, Upland Game Biologist



When thinking about upland game bird management in Oklahoma the main bird that jumps to my mind is the bobwhite quail. Bobwhites are

steeped in history in Oklahoma and have been pursued by hunters for generations. Despite the past couple of years of excellent hunting, the bobwhite is declining in Oklahoma.

Some of this decline is due to habitat loss from urbanization and fragmentation of land parcels, but the vast majority of habitat loss is due to lack of management on the landscape, or in some cases detrimental management (overgrazing, planting improved grasses, etc.). To combat these issues the five main management techniques set forth by Aldo Leopold still apply: the axe, cow, plow, gun, and match. However, the way we use those techniques may have changed.

The Axe - This technique has largely been replaced with the heavy machinery used in today's timber management, but the principle of thinning woody vegetation still holds. When done properly, thinning has the potential to create fantastic bobwhite habitat. Pushmataha Wildlife Management Area in southeastern Oklahoma is an excellent example of how timber management can benefit quail.

The Cow - Cattle have been and can be one of the best tools for bobwhite management.

Unfortunately, a large portion of grazing across the bobwhite's range occurs on "improved" pastures of bermudagrass and fescue rather than native rangeland, leaving little diversity for quail. In many cases, this "easier" or "simpler" improved pasture approach to grazing eliminates quail altogether. If possible, graze cattle on native rangeland without overgrazing. Restoring improved pastures back to native rangeland will greatly improve bobwhite habitat in relatively little time.



Chad Bennett/Reader's Photography Showcase

Five upland game management techniques stand the test of time, helping Oklahomans maintain their proud quail hunting traditions.

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The Plow - Plowing or disking turns the ground and stimulates growth of the forbs or weeds quail love and need. Disking a few strips next to grasslands or low-growing shrubs mimics the once abundant patchwork of small crop fields mixed with strips of grassy and weedy buffers that produced high numbers of upland game birds. November through early February is the best time to strip disk for quail and will create brood rearing habitat and food sources the following summer.

The Gun - While the gun lacks the same influence as the other upland game management techniques that focus on habitat, it is still an important aspect of bobwhite management. Quail hunters may number fewer than in years past but their harvest data is still important. Examining the crops of harvested birds also allows managers to better understand which foods are specifically selected by quail.

The Match - Perhaps more than any other practice, fire has the

greatest potential to bring back quail, including in areas nearly absent of quail. Our view of the match has changed over time with a focus on fire suppression rather than the benefits that fire provides. As a result, Oklahoma's landscape has drastically changed, leading to a decline in our quail population. The return of fire on the landscape can provide habitat required for bobwhites. Properties in the eastern half of our state could benefit from a three-year burn schedule while western Oklahoma properties could benefit from a five-year burn interval.

The axe, cow, plow, gun, and match have worked well for bobwhites in the past, and it's not too late to employ them again to bring back bobwhites to your property. Contact our private lands biologists to get more information on managing your land for bobwhites and other wildlife.



Winter disking promotes an explosion of important quail foods and ideal brood rearing habitat for quail.



Brian Don Brown/ODWC

Hemi-marsh Wetlands - Their Value and Management

By Kyle Johnson, Private Lands Biologist



“Hemi-marsh” may not be a universal term, but waterfowl hunters and bird watchers are likely familiar with these bird havens. Dozens of

bird species - often numbering in the thousands - frequent hemi-marshes year-round for cover, nesting habitat and food. While hemi-marshes can be classified as wetlands, not all wetlands are hemi-marshes. This leads to the question: what is a hemi-marsh?

Simply put, a hemi-marsh is a patchwork of about 50 percent open water and 50 percent emergent vegetation or wetland plants. This ratio can fluctuate within and between years, but the goal is to manage for the mix to be about equal.

The presence of open water and aquatic vegetation may define a hemi-marsh, but the value may be determined by other variables. Usually, each variable is related in some way to water. Too much water for a long period of time can direct the marsh (and its value) in one direction while



Kyle Johnson/ODWC

This hemi-marsh, located at Red Slough Wildlife Management Area, shows the 50:50 mix of open water and mixed emergent and aquatic vegetation.

too little water can do the opposite. The goal is to balance all of the variables – especially the water – for maximum benefit.

Most land managers with hemi-marshes use levees and water-control structures to change water levels throughout the year. Lowering the water level (drawing down) in the spring is critical to promoting an abundance of seed-producing annual plants that attract and hold birds in fall and winter. A slow drawdown maximizes shallow water and moist soil diversity, promoting an explosion of aquatic insects for feeding birds. As fall nears, pumping water through pipes or gravity-fed gates from adjacent water sources helps restore the marsh to its “natural” state.

The overall, simplified concept of hemi-marsh management is to manage the water for the highest quality and diversity of food plants for wildlife. Not all plants are equal, with some being very invasive and poor for wildlife. Knowing how and when to manipulate water levels combined with other well-timed management practices can be tricky and usually requires a “learn as you go” approach.

Establishing and managing a hemi-marsh may seem far too complex for landowners to consider for their property, but wetland and wildlife professionals are always available to assist with the design and management. The rewards for wildlife, hunters, and bird lovers are nearly endless, making it all worth the while.

Wildfire Recovery Update

Monthly Photos Show Healing After the Starbuck Wildfire

By Alva Gregory, Private Lands Habitat Coordinator



It's been nearly a year since the Starbuck wildfire of 2017 burned more than 600,000 acres in northwestern Oklahoma and southwestern

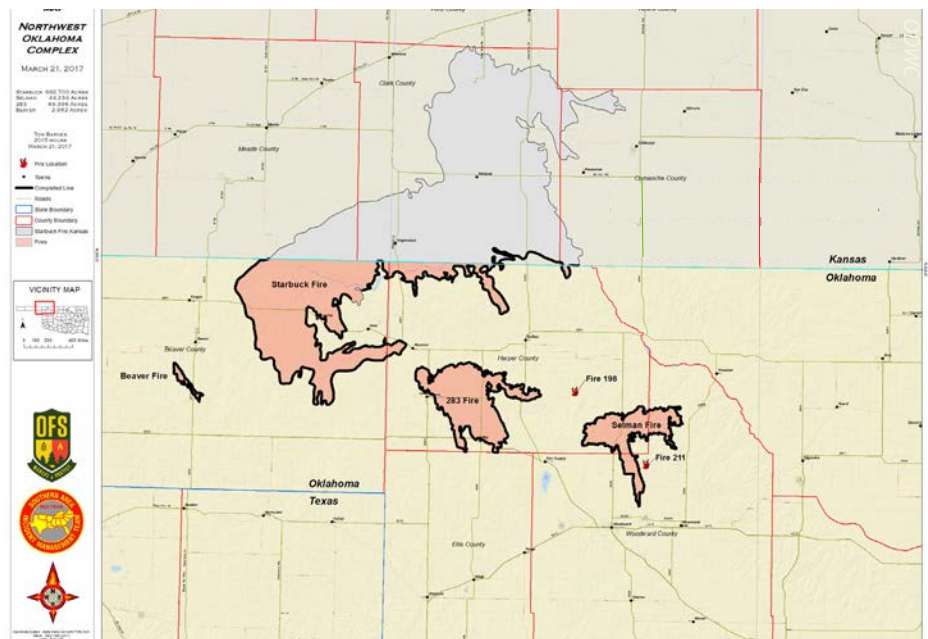
Kansas and, thanks to timely spring and summer rains, the dust has settled. However, the recovery of the March 2017 wildfire may very well take a couple of years to complete as fences, barns, and homes are re-constructed. Thankfully, a collaboration of efforts from landowners and various volunteer groups are working together to complete the tasks. But a very interesting portion of the recovery also includes the landscape.

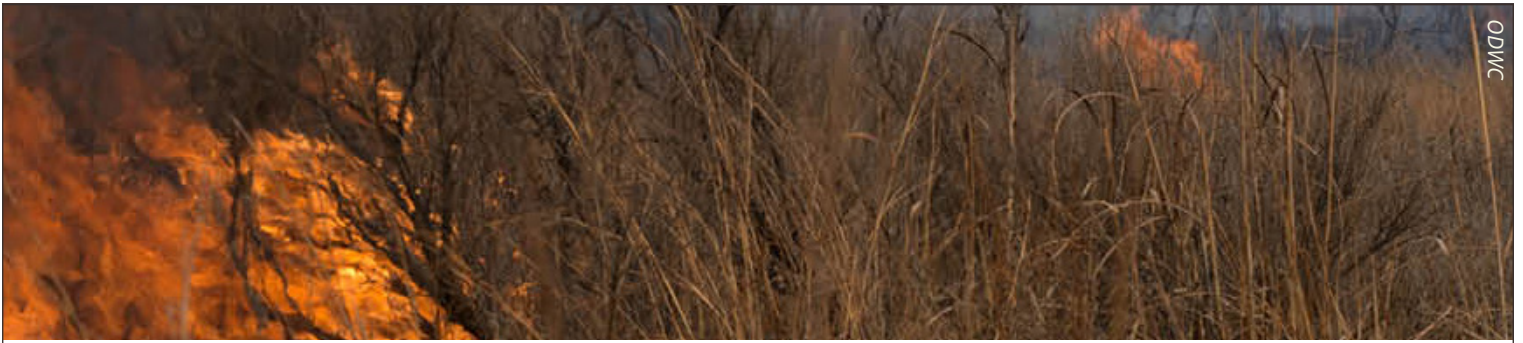
It was mentioned by some that the Starbuck wildfire seemed to "destroy" the landscape, including all of the grasses, forbs, shrubs, and trees in its path. There is no question; some woody plants suffered a blow by the wildfire, especially eastern red cedar trees. The intensity of the fire killed even the largest of eastern red cedars – a task that

is nearly impossible to achieve with a prescribed fire. But clumps of sagebrush and thickets of sumac and plum were also top-killed by the fire. Thankfully, as is the case with the vast majority of native plants, each of these woody species is fire-adapted to regenerate after a fire. Plants that were charred to the ground in March achieved heights of two feet the following August. The fire also benefitted many grasses and forbs, especially legumes, which have flourished across the once-blackened landscape.

But it also didn't take long for producers and other landowners to observe the changes. After the first rains, cows quickly gathered

in lush areas of green-up to accrue fat on the nutritious new plant growth. In addition, grassland birds were observed displaying, feeding, and nesting amid the green grasses and forbs. In March, the landscape within the path of the Starbuck wildfire looked hopeless, but today the grassland communities look healthy and revived. There is no question that the impacts of the wildfire will likely linger for several years and the hardship, suffering, and loss must be handled with compassion to all who were in the Starbuck fire's path. Hopefully the recovery of the landscape can portray hope for the future for all.





ODWC

These before and after photos show several months of healing.



A. Gregory/ODWC

Days after the March 10, 2017 wildfire.



A. Gregory/ODWC

April 2017



A. Gregory/ODWC

May 2017



A. Gregory/ODWC

June 2017



A. Gregory/ODWC

July 2017



A. Gregory/ODWC

October 2017, seven months after the wildfire.

Tech Note

Native Wildflowers (Not Just Milkweeds) Are Key for Monarchs

By RosaLee Walker, Private Lands Biologist



While planting or preserving milkweeds has long been advertised as a way to help monarch butterflies, this strategy only focuses

on one lifecycle of the well-known butterfly – the caterpillar. Monarch caterpillars feed almost exclusively on milkweed; in Oklahoma green antelopehorn milkweed is the most commonly used host plant. But the adult butterflies visit a wider variety of wildflowers in their nearly constant search for nectar. Because of this, landowners interested in helping monarchs along their journey can make sure both wildflowers and milkweeds are available for these long-distance migrants.

Increasing wildflowers and milkweeds can be as simple as reducing the amount of herbicides used to remove undesirable “weeds,” or planting wildflower seeds. Many commercially available mixes are packed with excellent nectar-producing plants. Other practices, such as prescribed



In Oklahoma, maintaining large patches of native wildflowers can help migrating monarchs, especially in the fall.

burning, light grazing, and timber thinning, are also great ways to promote milkweeds and other native wildflowers.

Landowners interested in managing for monarchs can always contact the Wildlife Department’s private lands biologists for free technical assistance. Resources are also available at www.monarchjointventure.org.

Whether traveling through Oklahoma during the spring or fall, monarch butterflies are in search of two primary things – plenty of milkweeds and plenty of wildflowers. Without them, few, if any, monarchs are likely to be seen. However, Oklahomans managing for an abundance of both are in for a treat each year when these fascinating insects pass through.



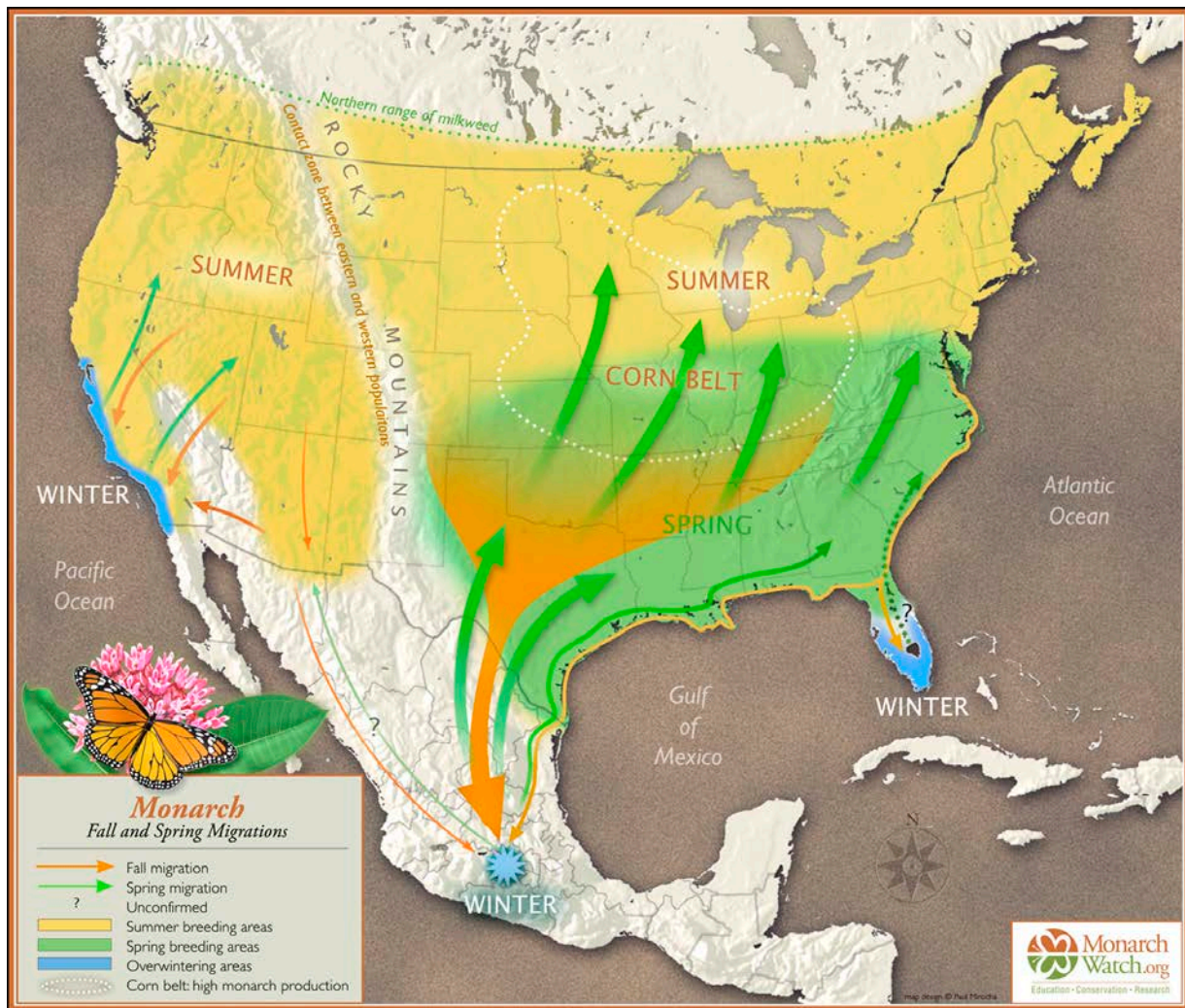
Oklahoma's Native Nectar Plants	Oklahoma's Native Milkweeds
False Indigo	Antelopehorn Milkweed
Engelmann Daisy	Tall Green Milkweed
Indian Blanket	Common Milkweed
Blazing Star	Swamp Milkweed
Purple Coneflower	Englemann's Milkweed
Summer Phlox	Clasping Milkweed
Canada Goldenrod	Sand Milkweed

The Annual Migration Requires Multiple Generations

The annual migration of monarch butterflies requires four to five generations of butterflies to traverse and complete the cycle. The first generation begins in the Southern Great Plains and is composed of the offspring of the butterflies that overwintered in central Mexico. These butterflies then move further north to

produce the second and third generations into the central plains and Midwest, eventually making their way into the upper-Midwest and Canada. Beginning in late August and early September, the fourth generation then commences their long trek south to the wintering grounds of central

Mexico. An additional fifth generation, of which limited information is known, are the offspring of fourth generation fall-migrating monarchs that become reproductive as they move through the Southern Great Plains of Kansas, Oklahoma, and Texas.





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