

# Your Side of the Fence

A biannual guide to help landowners gain in-depth information from experienced biologists in all corners of the state.



*Landowners wanting to attract mourning doves to their property can employ several techniques to make their areas more attractive to the birds.*

## Managing Native Dove Fields

By Josh Richardson, Migratory Bird Biologist

It's coming up on that time of year again, that lull when the shotguns are put away, the shooting vests are hung up, and the hunting dogs are moved from active duty to the reserves. Sept. 1 and the kickoff to the fall hunting seasons seems an eternity away, but there are a number of things land managers can do now to ensure the season starts with a bang (or hopefully at least 15). When it comes to dove field management, most people think of fields of several acres planted to some agriculture crop. Such management requires a sizeable area of tillable ground, decent soil, a tractor and several pieces of equipment, and the time to intensively manage the field. Most private land managers do not have one or more of those luxuries and often feel that dove management is something they are therefore incapable of, but in most cases they are wrong. While it may not be traditional, and it may not bring in hundreds of

birds, appropriate management of native plants can provide excellent habitat for doves and good opportunities to do some dove hunting later in the year.

First off, let's discuss what native plants are attractive to doves. A dove's diet is varied, and it will eat most any seed between the size of a #8 pellet and a pencil eraser. But here we will only cover a few. There are few plants that could rival native sunflowers; they are considered among the top dove foods available in Oklahoma. While the plant looks little like its farmed counterpart, native sunflowers produce an abundance of seeds, and the plant is robust enough to shade out nearby competition.

Croton is another popular dove food, as demonstrated by another of its common names, doveweed. A number of species of croton occur in Oklahoma, but all of them are beneficial to doves.

Pigweed, ragweed and bundleflower also provide good food value for doves.

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Several species of croton are found in Oklahoma, and all of them are beneficial to doves.

Looking at these plants, we can see some characteristics that they all share. The first characteristic, seed size, has already been covered. The second characteristic is that these plants are generally annuals. Annual plants usually put on more seeds and pack each seed with more nutrients because they only have one shot at producing offspring, as opposed



Rough pigweed seed.

to perennials that have multiple years of opportunity to produce progenies. The third characteristic is that they are all broadleaf plants, what many call weeds but are more accurately forbs. Forbs usually have a small main stem and produce a canopy of leaves higher off the ground, unlike grasses that produce a denser sod at ground level. This broad-leafed canopy prevents other plants from filling in and leaves the understory bare and open. Doves have very weak legs and have difficulty walking through thicker vegetation. The bare ground underneath forbs creates an easy area they can traverse and allows them to easily see the available seeds on the ground.

So, how does one "manage" for annual broadleaves with an open understory? Often the places you see these plants are in areas of recent disturbance, leading you to the conclusion



Maximilian's sunflower

that these are early successional plants. So any process that resets the successional clock will likely be beneficial. While there are many different ways, I'll touch on two: growing season prescribed burns and strip disking. While many Oklahomans' knowledge and acceptance of prescribed burns has increased dramatically in the last five to 10 years, the concept of growing-season prescribed burns is still somewhat new. "Normal" dormant-season prescribed burns are beneficial and will promote a flush of annual forbs. With average spring rains, the vegetation in the burn area will become fairly dense in the 7-9 months before dove season begins. A growing-season burn, one that is conducted while current year's vegetation is actively growing, usually occurs after the heavier rains of spring have ended, so while there is still enough moisture in the ground to germinate new growth, there is usually not enough additional rain to produce dense, tall stands.

Strip disking is another method of promoting annual forbs, and as the name implies, consists of disking strips in a field of native vegetation. The strips can be straight, wavy, or any other shape and usually range from 5 to 30 feet wide. Mowing before disking allows better incorporation of residue and usually increases the proportion of bare ground. Strips can be disked most any time of year, but fall or winter usually provide a better forb response. As a side benefit, strip disking is also very beneficial for upland nesting birds, providing excellent brooding areas.

Besides food, two other factors in managing native habitat for doves are often overlooked: trees and water. While not particularly showy or noticeable management practices, these are two critical components of dove habitat and often are more limiting than food. There are two types of trees to try to promote or maintain for doves: scrubby, bushy trees for nesting and dead snags for perching. Doves will nest anywhere but

prefer nesting in trees lower to the ground. They make a very poor nest, with very little thought to design or construction, so they need a bushy tree with many little twigs and sticks to hold up their nests. Two good species that I am familiar with and try to manage on my property are bois d'arc (also known as Osage orange or hedge apple) and hackberry. Other good tree groups are the locust (if you can tolerate the thorns) and some conifers. Doves also like to perch and survey for danger before entering a field to feed or heading to water. Many times you will see them perched on electricity lines next to a road, but if given a choice they seem to prefer dead snags. Again, a good snag should still have several smaller branches on which the doves can perch, so harder, slower decaying woods usually provide better roosts.

Doves also need a source of standing water from which to drink. While there is usually not a lack of water in most of the state, there are things that can be done to improve water sources for doves. Again doves have very weak legs and greatly benefit from very shallow, smooth banks with very little vegetation. Ponds with steep, incised banks, thick vegetation on the shore, or with a heavy mat of aquatic vegetation make drinking very difficult for mourning doves. Improving pond conditions can be as easy as mowing around the pond edge or raking out aquatic vegetation, or as intensive as re-sloping pond banks.

While these practices may not provide you numerous bag-limit hunts, they will provide several critical elements for the doves on your property as well as additional opportunities for viewing throughout the year. If you put this into practice, though, don't be too surprised if you use an extra box or two of shells come next September. ■



Western ragweed plant



JENA DONNELL

The prickly pear cactus is a succulent with large flat pads covered in spikes and bristled hairs.

## Prickly Pear Cactus: The “Defending” Champion

By Jena Donnell, Wildlife Diversity Specialist

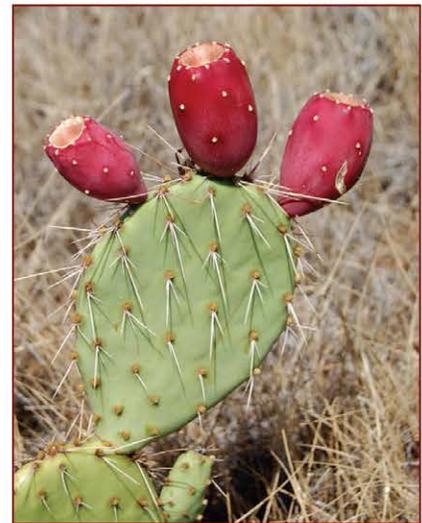
Although many Oklahomans acknowledge the prickly pear cactus (*Opuntia macrorhiza*) as an unusual plant — the ability to tolerate drought is nearly as impressive as the built-in defense system against being eaten — its role in wildlife habitat may be overlooked. The defense mechanism of stout spines nearly covering the entire surface is so effective, it’s hard to imagine any animal eating this plant, or risking impalement to use it for protective cover. Even though prickly pear may not be our first food or cover choice, its value as wildlife habitat may deserve a second look.

As a wildlife food source, prickly pear leaves a lot to be desired; while cactus is high in both fiber and water, these redeeming nutrients can be easily obtained by foraging on less repelling plants. Even so, many birds brave the spines to feed on the cactus fruit. In fact, the golden-fronted woodpecker will sometimes eat enough of the purple fruit to stain their facial feathers. Gophers, woodrats, rabbits, and even chipmunks also forage on succulent cactus. For the most part though, prickly pear is thought of as an emergency food source, one to resort to when all other foods have been depleted. But prickly pear cactus can benefit wildlife in other ways. For example, the loggerhead shrike, a predatory songbird, uses the cactus spines as spears to kill and preserve insects and small reptiles. Another wildlife

benefit comes when grazing pressure increases. Prickly pear may become a “defender” of nearby bunchgrasses. Because cacti are equipped with sharp spines, cattle and other grazers quickly learn to avoid foraging near cactus colonies. For ground nesting birds like bobwhite quail, this avoidance can provide nesting opportunities where quality habitat is otherwise limited. Nests built next to cactus are naturally protected by the spiny plant.

Though raccoons and other nest predators are not always deterred by the spines, some researchers feel the added protection may be a factor when quail select nest sites.

Many people are able to identify prickly pear cactus at an early age, if not by the full name, then at least recognize it as a plant to sidestep. The flattened pads,



JENA DONNELL

Wildlife can benefit from prickly pear cactus as a food and water source. It can also serve as escape cover and shelter for birds and animals.

or main part of the plant, are green and come in a variety of shapes, from oval, to heart-shaped, to circular. The surface is covered in bristled hairs and sharp spines. In traditional terms, the fleshy pads are the plants' stems, and the spines are leaves. The pads re-green in March, and yellow flowers bloom in May and June. Mature fruits are reddish-purple, and each fruit produces zero to 70 seeds. Like other cactus, prickly pear is a succulent, with pads comprised of up to 80 percent water. Seven species of prickly pear are found across Oklahoma.

Grass management is especially important to managers with prickly pear intermingled in native range. This fast-growing cactus often takes advantage of reduced competition for resources in overgrazed or disturbed pastures. Managers should use caution when removing cactus as prickly pear can be spread when individual pads are knocked off the plant. When pads are fragmented, perhaps by a hailstorm or a shovel, they can form roots and develop as a new plant. Because mechanical removal, without an alternative follow-up treatment, can lead to an increase in plants, prickly pear is best managed by a combination of prescribed fire and prescribed grazing. After a fire, the cactus pads — singed free of spines — can be grazed by cattle. Researchers are currently experimenting with prescribed burning techniques to find the best fire conditions for cactus management.

As you evaluate wildlife habitat, don't overlook the value of prickly pear cactus. This plant can be a source of food for wildlife, and may provide an escape from potential predators. It may seem inhospitable at first glance, but could be providing fruit to songbirds, or even sheltering a quail nest. ■



*The reddish-purple fruits of the prickly pear cactus can contain as many as 70 seeds each.*



*The prickly pear cactus' yellow flowers appear in May and June.*



When drained, this pond managed for bluegill reveals colony nest sites.

## Improving Spawning Habitat in Farm Ponds

By Rebecca Fillmore, Durant State Fish Hatchery Technician

Farm pond fish are a favorite bragging right for many landowners, and fishing a farm pond is one of the best kinds of fishing there is, especially in Oklahoma. But for a pond to be successful, a number of management factors must be considered, including spawning habitat for predator and prey species alike. This article will focus on improving spawning habitat for two common farm pond game (or predator) fishes, channel catfish and largemouth bass, as well as two common farm pond forage (or prey) fishes, bluegill and fathead minnows.

### What is Spawning?

Spawning is a term used to describe fish reproduction; for many freshwater fish species, eggs are deposited and fertilized



Channel catfish can use a spawning can with a float.

outside of the body. In most cases, male fish create a depressed nest using their tail, head and fins. Male fish often turn vivid colors during spawning season to attract females, and this is evident even in farm ponds. If a female approves of the nest, she will deposit her eggs. As the eggs are being laid, the nearby male fertilizes them. This form of reproduction makes eggs vulnerable to many adverse factors such as predation, weather and water quality. To overcome these threats, females generally lay many eggs in each spawn.

Spawning habitat is important for a farm pond to support ongoing recruitment. Recruitment is a term used by fish managers to describe the number of fish hatched in a year that mature into reproductive adults.

### Spawning Requirements:

Because different species of fish spawn in different manners, the type of spawning habitat required varies with management goals. Some fish species scatter eggs in open water, some build a nest and others guard the nest to ward off predators.

Environmental cues such as increasing water temperatures, day length and increases in water flow often trigger fish to spawn. In farm ponds, increasing water temperature is an important cue.

### Channel Catfish:

Channel catfish like to lay their eggs in a cavity, often in an undercut pond bank or in a hollow log. Once the eggs are deposited and fertilized, the male catfish remains in the cavity and guards the eggs. He also fans the water around the eggs with his tail fin to keep the water oxygenated and the egg mass free of debris.

If natural structure is lacking in a private farm pond, cavities can be created by placing barrels or old milk cans with a float attached spaced along the pond edge in three to five feet of water with the closed end of the barrel facing the bank. Containers should be put out in the middle of May. The artificial cavity containers need to be large enough for a male and female pair to enter and turn around inside. One container is adequate for an average of three spawning pairs of fish. If you want to check spawning success, containers can be located by the attached float and checked every few days. Even so, it is best not to disturb fish during spawning months. In Oklahoma, channel catfish usually begin to spawn from late May to July.



Largemouth bass nests are seen on the bottom of this drained pond.

### Largemouth Bass:

Largemouth bass are another fun-to-catch species that do well in farm ponds. Largemouth bass are substrate nesting spawners, preferring shallow areas (about two to four feet) for their sand and gravel mix nests. They are also considered colony nesters since individual nests are fairly close to each other. Male largemouth bass create the nest by clearing out a small depression in the bottom of the pond using their tail.



Cedar trees can be added to provide structure in a pond.

Largemouth bass are prone to nesting in areas with structure such as logs or brush piles, or in shallow areas where aquatic vegetation has taken root in April and May. Structured areas provide great cover for the nest, but too much structure can cause an increased egg predation rate because other nesting and non-nesting fish are using the same cover areas. For this reason, it is a good idea to have a mix of simple structure in your pond with shallow vegetated areas not taking up more than 25 percent of the pond. This can also prevent the nests from being buried in the pond bottom. In a pond with woody debris and vegetation, it is not uncommon for largemouth bass eggs to adhere to branches or stalks of vegetation. A good option is to submerge several cedar trees in the shallow areas of the pond to create good cover. If the pond is more sandy or silty, beds of dime-size gravel can be added in shallow areas when pond levels drop due to a drought or drawdown.

### Sunfish:

Bluegill and other sunfish (commonly referred to as “perch”) go through a similar spawning process as largemouth bass, and prefer much of the same habitat. This is not surprising since bluegill and largemouth bass are in the same family of fishes, called Centrarchidae (sunfishes). Competition for nesting sites isn’t normally a factor because bluegill spawn later in the year during summer months, while bass spawn earlier.



Adult Female Bluegill



Adult Male Bluegill

### Fathead Minnows:

Fathead minnows are also a common forage fish that Oklahomans stock into their farm ponds. These small fish spawn several times from April to July. Eggs often adhere to hard objects. The same cedar trees placed in the pond for bass and bluegill serve as great attachment points for fathead minnow eggs. Using sunken trees is a natural and an economical way to create spawning habitat.

Another way to improve many fish species’ spawning habitat is to maintain good water quality all year long. Planting native plants around the pond edges and limiting livestock access can prevent erosion, siltation and trampling of spawning habitat. Overall, creating simple structure in a farm pond is recommended for good spawning habitat for a variety of fish species. Structure is twofold because once the eggs hatch, fish fry will benefit from this same structure to hide from predators and have a better chance at maturing into reproducing adults. ■



KENNY BARRIS/STEWART WA FLICKR

River otters are now commonly found east of Interstate 35 in Oklahoma. The trapping limit was raised to four otters this season because of increasing populations.

## Expansion of the River Otter and Its Trapping Limits

By Jerrod Davis, Furbearer Biologist

A recent hunting regulation change offers statewide trapping opportunities for river otters (*Lontra canadensis*). Additionally, the trapping limit has been raised from two to four river otters per season. These rule changes stem from an increasing population, due in part to efforts of the Oklahoma Department of Wildlife Conservation in the mid-1980s.

Once common along Oklahoma's streams, river otters were thought to be rare or extirpated by the 1950s. Later, water development projects including wetland restoration and reservoir construction created new habitat, and otters from neighboring states began to slowly reoccupy our waterways. In the mid-1980s, the Wildlife Department provided a boost to the re-establishing population in eastern Oklahoma by way of multiple releases of otters from Louisiana. River otters are now regularly found east of Interstate 35 and incidental captures have been made as far west as Canadian, Comanche and Caddo counties.

To determine if a river otter season was warranted, the Wildlife Department and Oklahoma State University teamed in 2005 to research the status and distribution of river otters in Oklahoma. The study determined enough otters were present to justify a trapping season, and 2007 marked the first river otter season. Harvest was restricted to the eastern portion of Oklahoma with a two otter limit. The increasing population is reflected in harvest data; harvest has increased from 110 otters in 2007 to 509 in 2013. The 2014-15 season runs from Dec. 1, 2014, to Feb. 28, 2015.

### River Otter Ecology

Otters can be found near rivers, ponds, or any other permanent body of water. Hollowed trees, rocky ledges or even abandoned beaver dens are used for shelter. Though considered a social animal because of close-knit family groups, otters are often solitary. They sometimes range up to 20 miles. Otters are opportunistic foragers, feeding on small aquatic animals, insects

and vegetation. Despite their varied diet, otters are master swimmers and feed on crayfish and fish a majority of the year.

Otters mate in March or April, and the female carries the developing young for almost a full year before giving birth to two to three pups. Pups are born helpless and rely on the female for food and protection. After two years, pups reach maturity, disperse and look for their own mates. Average life span for river otters is 15 to 20 years.

### How to Trap a River Otter

Channel sets (using submerged traps) and trail sets are two of the most common trapping methods for river otters. Coil spring foothold traps or a longspring foothold trap are recommended. When using a channel set, locate an area where otters are entering the water by scouting for tracks and grooves. Set the trap underwater in line with the otter trail. To use a trail set, locate an otter travel lane along the shoreline or over pond dams. Be sure to place the trap where the trail narrows and where water is shallow to increase your chances of a successful set. Adding sticks to both sides of your set also increases the chances of otters entering the trap. Cover your trap with damp leaves or other debris to hide the majority of the trap.

River otters are listed in the Convention on International Trade of Endangered Species of Wild Flora and Fauna (CITES) and as such must be tagged no later than 10 days after the close of trapping season. To trap in Oklahoma, you will need either a lifetime license or a state hunting license, trapping license and fur license. Contact your local game warden, biologist or Wildlife Department office to get your river otters tagged.

With a historic range over most of Oklahoma to an almost non-existent population, the rebound of river otters into a large portion of the state is a wildlife management success story. If you are a trapper or simply enjoy being in the great outdoors, the presence of these unique mammals creates many opportunities to enjoy. If you have any questions about the river otter or about the furbearer season, contact Jerrod Davis at [jerrod.davis@odwc.ok.gov](mailto:jerrod.davis@odwc.ok.gov). ■