

PRACTICAL WILDLIFE MANAGEMENT INFORMATION



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## Earl Says...

Just a few weeks ago my home state of Alabama became the latest state to legalize baiting for deer and wild hogs. While this has been a hot discussion topic among hunters for years, no one knows for certain what effects this will have for hunting in the future.

As a compromise for the pro-baiting groups, a few years ago a law was passed legalizing the feeding of deer and you could hunt near the bait as long as you were 100 yards away and the bait had to be out of sight. This went on for several years until our legislature passed the new baiting bill this year. Now hunters in Alabama can hunt over bait as long as they pay a \$15 feeding permit, \$51 for non-residents.

My only problem with this new law is that it was pushed through by legislators, not biologists and land managers. With the threat of CWD all around us is this going to be a problem for the future of deer hunting? And will the new widespread use of bait help to explode the populations of wild hogs? I guess time will tell.

Is baiting legal in your state? I would love to hear your thoughts and experiences on this subject. Several years ago, I commissioned a couple of articles on baiting for *Wildlife Trends Journal*. The anti-baiting article was written by a wildlife biologist who said baiting helped spread diseases by concentrating deer around one food source. The pro-baiting author was an outdoor writer from Texas. He said they had been hunting over bait for decades and had not had any problems. Although I am simplifying what each side claimed, you can see why there is so much debate these days.

Andy Whitaker Publisher/Editor





P.O. BOX 640596 PIKE ROAD, ALABAMA 36064 www.wildlifetrends.com 800-441-6826

> PUBLISHER/EDITOR Andy Whitaker

DESIGN Walker360 2501 East 5th Street Montgomery, AL 36107 (334) 832-4975

CONTRIBUTING AUTHORS Dave Edwards Dana Johnson Brant C. Faircloth Wes and Leslie Burger Dr. Wes Wood Theron Terhune Marion Barnes Ted DeVos Bryan Burhans Keith Gauldin Rodney Dyer Dr. Keith Causey Ron Jolly Dr. Stephen Ditchkoff Tes Randle Jolly Kevin Patterson Ryan Basinger G. Rvan Shurette D. Clay Sisson Kent Kammermeyer Allen Deese Scott Brown Dr. Larry W. Varner Jason R. Snavely Steve Tillmann Mark Thomas

For Wildlife Trends editorial, advertising, or change of address: 1-800-441-6826 <u>info@wildlifetrends.com</u>

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## **Photo Essay: Spring Ritual of the Wild Turkey**

Text & photos by Tes Randle Jolly



Tes Randle Jolly is an award winning freelance outdoor photographer/writer and active member of the Southeastern Outdoor Press Association. Her work regularly appears in Wildlife Trends Journal, national and regional publications, books, artwork, calendars and online. Jolly lives with her husband, Ron near Tuskegee, Alabama. They offer media services through their company, Jolly's Outdoor Visions.

The wild turkey (Meleagris gallopavo) evolved more than 11 million years ago. Wild turkeys were revered by ancient civilizations for their spiritual connection but were also recognized as an important food source. With European expansion in the 17th century came unregulated hunting and habitat destruction which gradually decimated or wiped out populations in many areas.

The come-back of the wild turkey is truly one of America's great conservation success stories. In the early 1900's wild turkey populations were estimated as low as 30,000 birds. The work of the National Wild Turkey Federation, state and local agencies and private landowners have paid tremendous dividends. Today the estimate is over seven million wild turkeys nationwide. Five distinct subspecies inhabit North America—the Eastern, Osceola, Rio Grande, Merriam's and Gould's wild turkeys. In turkey hunting circles tagging all five is referred to as the Super Slam of turkey hunting.

There's never a dull moment in the

spring woods as turkeys feed, court, mate, battle, nest and brood. The time of dogwoods in bloom and gobbling at dawn is a much-anticipated time of year. It's the season when a hunter's calling skills, stealthiness, woodsmanship, patience and endurance are tested against the king of spring.

The following photo essay features insight into the springtime world of the wild turkey, its behaviors, habits and interactions plus a few insights that may help hunters plan a successful hunting strategy.

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As fall winds down and winter approaches, wild turkeys generally separate into winter flocks of gobblers and hens. Mixing of flocks can occur

throughout the season especially in cold regions where food sources are limited or concentrated in certain areas. Gobblers may strut anytime though

it occurs predominantly during spring mating season.



By late winter and as daylight and temperatures increase, so does the action in the turkey woods. Hen and gobbler flocks reunite and the hierarchy in each is settled. Gobblers and hens are vocal and interacting throughout the day. Noisy, feather flying, pecking and chasing spectacles occur as each turkey defines its place in the pecking order. Large flocks generally split into smaller ones and disperse. This typically occurs prior to or near the opening of hunting season.

When scouting or hunting, listen for sounds of a "barnyard bird battle"—aggressive purring,

wing flapping, loud clucking, cutting and excited gobbles. Turkeys will often rush to a fight. When other hunt strategies fail, try imitating the sounds of a turkey fight. Turn up the volume and aggressiveness on your calls. Slap your cap against your leg to mimic wing flaps.



A dominant gobbler must defend its breeding range. Gobblers that have a non-breeding subordinate tom(s) as an ally is in a better position to ward off interlopers. Two battle tested gobblers squaring off, sizing up the opponent like prize fighters in the ring is a sight to behold. They address each other with heads held high, red caruncles swollen with engorged blood, tail fan flared and wings dropped to appear more threatening. The fight intensity and duration varies. A threatening display, wing slap and spur jab may be all that's needed to send the opposer running. Two seasoned toms may battle for long periods much like whitetail bucks with an intent to seriously injure the other. The two toms in the photo locked beaks for nearly 15 minutes in a shoving and neck twisting match that eventually ended when one tom was able to throw the other off balance and to the ground much like a cowboy bulldogging a steer.



Spring turkey gobblers put on one of nature's most beautiful courtship displays. Strutting is generally associated with breeding season as gobblers display their colors and plumage to attract hens. Strutting also occurs when gobblers defend their rank as winter flocks reunite in spring, or to show dominance anytime of the year.

Strut zones are locations where turkeys meet and gobblers strut. They consistently show evidence of wing dragging marks, tracks and scratching. Though turkeys will strut anywhere, there are features typical to many strut zones—favorable typography so gobbles can be heard from a long distance, adequate sunlight in enough open area for gobblers to be seen and to observe approaching hens and to detect danger.



Jakes are awkward and entertaining to watch but like teenage boys, can be the source of expletive laced frustration for hunters. Rising hormone levels and low status in the breeding order plus idle time leaves them primed to disrupt, intrude and bully. Particularly aggressive jake gangs are often older ones from early hatches the previous spring "Bull jake" gangs will take over a hen flock from a gobbler(s) that are unable to defend against the mob. This photographer has observed many occasions where a jake gang will literally run to a gobbling tom and attack. The search and destroy behavior may influence certain mature gobblers in such areas to clam up during the peak breeding period. Savvy hunters practice patience and give setups more time. They listen for more subtle clues to a gobbler's presence in an area like spitting and drumming. Hens and jakes nearby may give a gobbler's presence away. They often react to a spit and drum with a short 3-5 note yelp.



Increasing daylight hours as winter transitions to spring triggers hormonal changes in wild turkeys. The beginning of gobbling in late winter and early spring signals the approach of the mating period. Gobbling is the sound turkey hunters find all but impossible to resist. "Talking turkey" with gobbling toms can cause a fevered affliction that is only remedied with frequent trips to the woods. It can all but destroy common sense in the best of folks. Like a siren's song, the thunderous gobble rattling the spring woods lures bleary-eyed hunters from warm beds at wee hours to forsake jobs, family time and household duties. Thankfully, it's a seasonal ailment.

Gobbling peaks during this time. Toms, anxious to mate, are eager to announce their presence and locate and attract hens. Their loud and proud attitude makes them susceptible to a hunter's calling and ability to pinpoint their position.



Start to finish, a gobble happens quickly, typically under a couple of seconds. It's described as a loud, rolling, throaty garble of sound. It's impossible to see all that happens, in real time, during the call. Thanks to high speed digital image frame rates available in professional cameras, an interesting split-second pose is possible to capture in a sequence. It demonstrates how just before a gobble begins a tom's head tilts, the beak opens wide, presumably to gulp air, before the gobble is cast. (Note the open beak in photo) What appears to be the fueling charge for the gobble occurs in the blink of an eye.

The inner, or second, eyelid regularly closes briefly during a gobble. (Note the closed inner lid in photo.) Often the lid will close just as the gobble starts and may do so again during the sound's release. When hunting, and a quick adjustment or slight movement is needed, try making it during a gobble.



Nature's colorful spring renewal is the perfect backdrop for gobblers to engage in courtship displays. Gobblers are polygamous and will mate with multiple hens. Breeding begins in late winter and early spring (February to May) depending on the region. Most breeding is done by dominant gobblers; however, subordinate toms and jakes can be sneaky and will take advantage of an opportunity if presented.

The gobbler pictured here pressed his case as a desirable mate to a hen that seemed barely aware of his presence. Ignoring his dashing strut, the hen fed, preened and dusted most of the morning. Finally, the hen stood motionless with head bowed for a few moments. The gobbler took notice and strutted to her side. The hen squatted, assuming the breeding position. The gobbler stepped up and treaded her back for several minutes before mating. The hen twice emitted a soft squeal that's made during mating. One breeding is sufficient to fertilize all of the hen's eggs though hens will typically mate several times throughout the season.



Once the mating period is underway, hens scout for suitable nesting sites. Optimum nesting habitat features a well-developed understory that includes low bushy/vine type cover in pine forests, cutovers, old fields and along stream edges. Hens leave the flock temporarily each day to lay an egg. The average clutch has 8-10 eggs.

The odds are against a hen successfully hatching a clutch of eggs. Primarily, predators, weather and turkey habitat management practices will define success. Less than half of all nesting attempts are successful. As ground nesters a hen and her nest must remain hidden from a host of predators for up to 6 weeks during the laying and incubation period. Common predators of turkey eggs include, raccoons, opossums, skunks, snakes and crows. Necropsy studies prove feral hogs will eat turkey eggs. Harsh weather conditions and human disturbance (mowing, disking and burning) also claim nests each spring. Hens likewise are vulnerable to coyotes, bobcats and feral cats and dogs.

Savvy hunters know mid to late morning hunting can be productive during the egg laying period. Gobblers who are alone for several hours while hens are away may become more vocal and vulnerable to hen calling.

![](_page_7_Picture_6.jpeg)

![](_page_7_Picture_7.jpeg)

![](_page_8_Picture_0.jpeg)

From a hunting perspective, the nesting period can be very productive for hunters who are aware when most hens in their area are committed full time to incubating eggs. Gobblers that were previously "henned up" are now alone but still have the urge to mate. Some gobblers will join with others as the breeding season winds down. Others will resume frequent gobbling to attract hens and cover ground each day searching.

An effective hunting tactic during the incubation period is to note where nesting hens frequent a feeding area, food plot or dusting area during their short breaks from nesting duties. Gobblers will sometimes hang out nearby or cruise nesting areas to find hens, especially late in the day. It's a good location to set up, be patient and call softly, sparingly and use non-vocal calling like leaf scratching. Take care not to spook or disturb nesting hens.

![](_page_8_Picture_3.jpeg)

Incubation lasts about 28 days. All eggs in a clutch hatch within a 24 hour period. Unless weather conditions are poor, the hen leads the poults away from the nest 24 hours after hatching is complete. Mortality rates of poults range from 70-80%. Most hen and poult deaths occur during the first 2-3 weeks after hatching when poults are unable to fly and must roost under the hen on the ground. Poult predators include raccoon, bobcats, foxes, coyotes, ouvls

and hawks. By three weeks of age, poults can fly up into low shrub trees or bushes increasing their chances of survival.

Nesting habitat is ideally situated near brooding habitat. Poults require protein rich insects early in life to grow quickly.

Poult rearing success is a good measure of an effective year-round wild turkey management program. Clover fields attract and hold hordes of insects. Mowed strips help young poults with access. Winter food plots of cereal grains and pasture grasses that are allowed to mature offer summer forage for growing turkeys. Disked lanes around field edges provide dusting areas. When you realize just how difficult it is for hen wild turkeys to brood and raise poults the wild turkey restoration and management story becomes even more remarkable.

## Green Water – The Good, Bad and Ugly

#### by Scott Brown

![](_page_9_Picture_2.jpeg)

Many think green water equals "dirty" water, but in reality, a slight or established algae bloom in a lake indicates it has the potential to grow and probably already growing quality fish.

Most have heard a lake manager say or have read that an algae bloom (green water) is good for fish production. This statement is true to a point, but you can have too much of a good thing. A "perfect" algae bloom is a great help in growing quality largemouth bass, black crappie and striped bass hybrids, but some lake owners get too much of an algae bloom and struggle to maintain a healthy fish population.

**Planktonic algae** (Phytoplankton) are microscopic floating leafless plants that absorb nutrients from the elements in the water. This differs from **filamentous algae** (long, stringy, "slime" or "pond scum") on the lake bottom or

floating in mats on the surface. Like most plants, algae utilize sunlight to grow, so shaded ponds may not grow as much planktonic algae as waterbodies with more exposure to the sun. There are many kinds of algae - green, red, brown, and bluegreen algae. It's important to be familiar with them because most are harmless, but some blue-green algae can produce potent toxins which can stress or kill fish, and poison other animals drinking it. These toxins are produced inside the cells and stay there as long as the cells are alive. When these cells die and break down, toxins can be released into the water. We have rarely seen a toxic algae bloom in private property lake management,

Scott Brown is a Biologist and regular contributor to Wildlife Trends Journal with over 30 years experience in research and managing natural resources throughout the Southeast. Scott founded Southern Sportsman Aquatics & Land Management in 2007 and now has clients from Texas to Florida and into the Carolinas. Contact him at scott@southernsportsmanaquaticsandland.com or (336) 941-9056. but you do need to be aware of them in case you encounter one. There are more than 17,000 algae species that have been discovered to date and possibly more yet to be discovered.

Most planktonic algae species need to be identified with a microscope, as stated earlier there are thousands of species throughout the world, but in most instances, general identification is acceptable for freshwater lake management. Only on rare occasions does algae need to be identified down to the species level. One of the issues we see with planktonic algae is it becomes too intense and causes water chemistry issues (low dissolved oxygen). All these issues are associated with excess nutrients whether naturally occurring or man-made, and in warmer water. Most freshwater algae blooms grow when water temperatures get above 60° F and thrive as temperatures get warmer. An 87 – 92° F water temperature

creates a prime environment for planktonic algae growth. In small freshwater ponds, we rarely see any of the few toxic algae species. These are more common (and still not that common) in larger lakes, reservoirs or in saltwater near the coast. Planktonic algae can occasionally appear on excessive dry or wet years, or be a chronic problem depending on the age of your waterbody and activities currently or historically occurring around and/or upstream of your lake. Remedies range from doing nothing and letting it run its course to continually treating with herbicides and/or biological treatments.

Green water has been proven to support up to 400% more fish than clear water. Green water is not "dirty" water or necessarily bad. This is in the form of planktonic algae which turns the water green or blue-green, brown, red and many other color variations. It can

be a slight tint with visibility down several feet to a heavy paint-like color with zero visibility. In some instances, the water may have suspended dirt particles with an algae bloom, giving the water a brown color. To test this theory, take a clear jar of lake water and allow to set in the sun all day undisturbed. If upon return the water is greenish with sediment at the bottom proves it true. If the water is clear and there is sediment in the bottom, the water is just turbid (dirty). If the water is still brown with little or no residue on bottom, you have a brown algae bloom. Many species of algae are involved in algae blooms and these species change over time based on temperature, light, nutrients, and other factors. Most planktonic algae are harmless and in moderation benefit fish populations. Planktonic algae are the foundation of the food chain known as phytoplankton.

![](_page_10_Picture_5.jpeg)

This crystal-clear lake does have some largemouth bass in it, but not nearly as many as the nearby lake that always has an algae bloom present.

![](_page_11_Picture_0.jpeg)

These recently hatched largemouth bass are consuming phytoplankton the first few days of life, then moving up to zooplankton and eventually small fish. Who knows, maybe the next Florida State Record is in this photo.

Phytoplankton (microscopic plants) feed zooplankton (microscopic animals) that feed small fish, that feed larger fish and wildlife. Most 24-48-hour old fish hatchlings, regardless of species, feed on phytoplankton and zooplankton. From there, depending on the species, they may continue to feed that way, or they may progress up through the food chain changing forage many times if a top-level predator such as the largemouth bass. The more food available for fry and fingerlings, the faster they grow and the higher the survival rate. Species such as the threadfin shad feed on planktonic algae (phytoplankton) their entire life span.

For algae to flourish you need sunlight, adequate water temperature and nutrients which can come from agricultural runoff (animal waste, plant fertilizers), residential fertilizers (homes, golf courses), natural areas (flooded woods, prairies, wetlands, fields, etc.) where large amounts of dead plant material have built up, and from the lake bottom itself, where large amounts of organics have built up over the years from natural lake progression. Besides nutrients, planktonic algae need certain water chemistry parameters to fall within certain ranges, otherwise this type of algae cannot utilize the nutrients to grow and multiply. Water chemistry parameters such as hardness, alkalinity and pH need to be above 20 ppm, 20 ppm and 5.5, respectively, for a good algae bloom to occur. This is why it is always advised to have water chemistry checked prior to initiating a fertilization program, to ensure an algae bloom will occur when desired. We have witnessed liming a lake prior to beginning a fertilization program which allowed an algae bloom to occur naturally with nutrients already present, and no fertilizer was necessary to

achieve the desired results.

An ideal algae bloom restricts water visibility from 18-36 inches. Anything less and the bloom is too intense, anything more sunlight penetrates farther into the water column and will promote undesirable submerged vegetation growth. Planktonic algae raise dissolved oxygen (DO) levels in the water during daylight hours, but dissolved oxygen levels subside over night as some cells die-off and the remaining do not photosynthesize (put out oxygen). Algae blooms can cause issues after they become established with a sudden die-off. Sudden die-offs occur when a lake dye or herbicide is applied to them, or subsequent days of overcast (no sunlight) weather can trigger a planktonic algae die-off. This dieoff creates decomposing plant material and lowers DO levels, sometimes stressing or killing fish. As air temperatures cool and daylight hours shorten, algae

blooms subside and may disappear during winter, but if conditions are right will re-appear the following spring with no intervention.

In a lake with an algae bloom, DO levels will fluctuate throughout a 24-hour period. Dissolved oxygen levels will be the lowest at daybreak, steadily increasing as the day goes when the sun is out. After dark, the DO will begin to drop until morning. This swing is natural, fish tolerate this and should have no issues unless the algae bloom is too intense. If the lake experiences several days of cloudcover, the DO may stay low and on occasions cause stress or kill fish. A green lake typically has a higher DO level during the day and lower at night than a clear lake.

A lake with an algae bloom will have a higher DO level in the top of the water column during the day than clear lakes. But it will also have lower DO levels during the day deeper in the water column than clear lakes, especially in the summer. When waterbodies become layered like this the term is **stratified**. To make the algae bloom lake water chemistry more stable (de-stratify), the addition of a bottom aeration system will greatly improve the entire water column. A green lake with bottom aeration will have DO rich water throughout the water column all year long, allowing fish to use the entire water column instead of only the top 7-10 feet. This also helps

![](_page_12_Picture_5.jpeg)

Bottom aeration can help prevent fish kills when your waterbody has an algae bloom reducing daily dissolved oxygen fluctuations and eliminating stratification, allowing fish to use the entire water column all year.

High quality & affordable game bird hunts and continental pheasant shoots on our property or yours.

![](_page_12_Picture_8.jpeg)

Hunts start at \$200 per person on our property. 15 quail per person. Located in South Montgomery County, Alabama Call now to reserve your dates!

www.facebook.com/TwistedOakTaylorDeese Owner: Taylor Deese (334)-850-5747 prevent lake turnover from drastic temperature changes where bottom water with little or no dissolved oxygen quickly rises to the surface and causes fish kills.

As **emergent** (plant parts below and above water surface) and **submergent** (plant parts below water surface) plants increase their presence, so does the water clarity. When these plants become more abundant, they use up more of the nutrients leaving less for the algae bloom, which causes the water to clear. The clearer the water becomes the more other plants can grow due to sunlight reaching farther into the water column. Therefore, when conducting a fertilization program, you must check water visibility frequently to maintain the desired visibility distance to not allow undesirable plants to grow and visibility to increase and grow more emergent and submergent plants that may become a problem in the near future. We have seen a perfect 20-inch visibility with a fertilization program become an aquatic vegetation nightmare in a couple months because the algae bloom went away, water cleared, and other plants exploded in growth with the excess nutrients available.

![](_page_13_Picture_4.jpeg)

It is easy to see why this lake has both an algae bloom and a filamentous algae issue. Livestock waste is deposited around during rains and animals wade into to cool off and drop waste directly into the water. To reduce the nutrient load, moving livestock to another pasture (if possible) is recommended.

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![](_page_14_Picture_10.jpeg)

![](_page_14_Picture_11.jpeg)

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![](_page_15_Picture_0.jpeg)

This pond typically has a nice algae bloom, but just after a big rain, the suspended sediment mixes with the algae to create a non-transparent brown color.

We always stress, if you are going to perform a fertilization program to maintain an algae bloom, you must commit the time and funding to maintain it throughout the entire growing season, otherwise trouble could ensue with excessive vegetation and/or water quality issues.

If an undesirable algae bloom exists and you want to stop or reduce it, the nutrient source must be removed to accomplish this. Depending on where the unwanted nutrients are coming from, or if they are already in the waterbody, this may be a simple fix or require major work. An example of a simple fix is placing barriers (fence) up excluding livestock and the runoff from their living area from entering the lake. A more complex fix may be drawing a lake down, scraping out the organic muck and refilling, which is major work. Caution must be used to treat algae blooms with herbicides or lake dyes. Once the bloom becomes established, killing the bloom in spring or summer will greatly lower dissolved oxygen levels and will probably kill fish. One instance we experienced was a client in June had enough of his "green" water and was about to treat his prize bluegill pond with a dye to reverse the algae bloom. Due to the time of year, the dye would have killed the algae bloom, however, all the dead phytoplankton and zooplankton particles would have started decomposing, which would have removed all the dissolved oxygen present and caused a catastrophic fish kill. Instead, we had him wait until early winter when the water was mostly clear to add the dye and the following spring, he continued dying the lake

without the return of the algae bloom and without killing any fish. We have witnessed professionals who only manage lake weeds and did not understand water chemistry or fish biology and make this grave mistake many times. Use only aquatic labeled herbicides, as some have used homemade concoctions and inadvertently killed fish or desirable plants in the process to stop algae blooms. **Karmex** has become a popular herbicide ingredient used by landowners in lakes, it is both illegal and harmful to aquatic ecosystems. The active ingredients that have been successful in treating planktonic algae include **copper-based** compounds, sodium carbonate peroxyhydrate, alkylamine salts of endothall, and flumioxazin. Reading and following the labels is imperative when treating algae, you do not

want to induce a fish kill. If a lake dye is desired, apply in mid/late winter when the bloom is less established and maintain the dark color throughout the growing season to avoid any fish stress or die-offs and to control submerged plant growth. Allowing a buffer of plants to grow around and in a lake will also help reduce nutrients entering the system. The more plants using the nutrients, the less available for algae.

Next time someone claims the "green" water is dirty water, explain to them that is not necessarily true and a slightly green lake has more fish and aquatic organisms in it than clear water lakes. I wish all lakes had a slight algae bloom never needing manipulation one way or the other, then growing quality fish would be a much easier job, but then I would be out of a job.

![](_page_16_Picture_2.jpeg)

Sometimes with a fertilization program you will get unwanted filamentous algae. Treat filamentous as soon as it appears to keep the water aesthetically pleasing and not risk water chemistry issues down the road.

![](_page_16_Picture_4.jpeg)

Bach & DeVos operates two woodland mulchers/grinders on forestry based carriers.

Other services include timber sales, forestry/wildlife plans, burning, site preparation and planting, GPS and mapping, land sales.

## Chronic Wasting Disease – What You Need to Know!

#### by Ron Jolly

![](_page_17_Picture_2.jpeg)

Photo by Tes Randle Jolly

**C**hronic wasting disease (CWD) is a neurological condition that affects members of the deer or cervid family. It was first discovered in 1967 in Colorado. Over the next 30 years it slowly spread to involve deer and elk in a small 15-20 county area near the Nebraska, Wyoming border.

In the late 1990's CWD was discovered in elk transported from South Dakota to Saskatchewan. Since that time the disease has spread exponentially. It has now been verified in 26 states, three Canadian provinces, Korea and Norway. In almost all instances, the appearance of the disease can be traced to the transport of live animals from infected areas.

CWD is an always fatal disease. There is no cure, no preventative vaccine. It is hard to detect before it reveals itself in animals in the final stages of the disease. At this time, it has not been discovered in Alabama but the neighboring states of Mississippi and Tennessee have found the disease in wild deer in their herds.

## What Is Chronic Wasting Disease?

Most researchers believe Chronic

Ron Jolly (ronjolly22952@ mindspring.com) is an awardwinning outdoor writer and video producer living with his wife, Tes, on their farm near Tuskegee, Alabama. Tes (www.jollysoutddorvisions. com) is herself an awardwinning writer and outdoor photographer. You've seen lots of her work in past issues of Wildlife Trends Journal. Wasting Disease is caused by an abnormal protein called a prion. There is no easy way to destroy prions. They can be transmitted animal-to-animal through saliva, urine, feces, spinal and brain fluids. They survive in soil and can be taken up by plants through the root system.

Similar diseases are Bovine Spongiform Encephalothy or Mad Cow Disease and Scrapie in domestic sheep A sister disease to CWD is Creutzfeldt-Jakob Disease. It has proven capable of infecting humans but at this stage CWD has not been proven to infect humans.

Bottom line, CWD is still a mystery

as far as prevention or a cure is concerned. Once the disease infects an animal lesions form on the brain. Eventually these lesions develop into holes in the brain, interrupting the animal's ability to function.

Animals infected with CWD may not show symptoms for up to two years. Once the disease manifests itself, the animal may appear lost or disoriented. Eventually they stop eating, drinking water and slowly waste away until death occurs.

#### The Battle Plan

Human movement of live cervids or infected carcasses has contributed to the exponential spread of CWD over the last decade. New laws restricting the transport of live cervids and carcasses of cervids have been adopted to hopefully limit the spread of the disease.

Most experts agree the movement of infected deer is the major cause of the spread of CWD. To learn what the experts recommend on fighting the spread of CWD we asked Lindsay Thomas, Jr., director of communications for the Quality Deer Management Association.

"A lot of the talk you hear and read is by people who are already impacted by CWD," said Thomas. "What we have to do is wake up

![](_page_18_Figure_10.jpeg)

According to Lindsey Thomas, Jr. this map spells trouble for deer hunting. The dots represent the zip codes of hunters from 49 states who killed 32,000 deer in Wisconsin's four worst counties for chronic wasting disease during the 2016-2017 season. Only 2,300 of those deer were tested for CWD. Map courtesy of United States Geological Survey.

![](_page_19_Picture_0.jpeg)

Biologists from Alabama's Wildlife and Freshwater Fisheries Division test an average of 1500 deer annually for Chronic Wasting Disease. Photo courtesy Billy Pope, ADCNR.

hunters and managers who are not yet impacted and educate them on things they can do to stop the disease from coming to their area. We have to stop it from reaching new areas. That is really the fight right now. Stop the spread. That is what we have to do. Research is ongoing and I feel one day we will figure this out and solve the problem. Until we do that, we have got to stop the spread to new locations. Every deer hunter can help with that."

"If you tally all the counties in the country that have CWD it's about 9%. That means 91% of the counties do not have it. We have to keep those numbers where they are. We can't afford to have the disease spread to more areas."

#### **The Big Misconception**

Many hunters think deer infected with CWD are slobbering, wastedaway deer you see in photos used in CWD articles. Deer that live long enough will show those symptoms and look emaciated before they die.

One giant misconception is hunters who do not believe the disease is in the deer they hunt because the deer look normal. Many CWD infected deer do not live long enough for the disease to finally kill them. The effects of the disease are not as noticeable in early stages but affect the deer's ability to cope and survive.

It is believed many CWD infected deer are killed by predators, automobiles and humans before the disease reaches the final stages. In fact, deer can carry the disease up to two years before the symptoms become apparent. The entire time that deer is alive it is spreading prions even though it appears normal.

While QDMA does not believe CWD will eradicate the whitetail deer, it has strong feelings on the sustainability of hunting as we know it.

Lindsay Thomas, Jr.—"In Wisconsin, efforts to manage the outbreak of CWD raised the ire of hunters to the point that the DNR decided to stop trying. Today, some of those counties have a 50% infection rate of whitetail bucks. Remember, this disease is always fatal. It may not wipe out the entire herd but it will undermine that herd's ability to support hunting. When you factor in the mortality rate of hemorrhagic disease, cars and hunters, that herd is going to dwindle away. Hunter success will plummet and DNR's will have no choice but to reduce hunter harvest."

Another misnomer is CWD infected deer meat is safe for human consumption. That may be true and it may not. The Center for Disease Control is now urging hunters to test their harvest for the disease before consuming the meat. Efforts have been made to make a simple test available in infected areas. Conservation departments normally provide this service and normally the test results take only a couple weeks.

"While CWD has not been proven to affect humans, it has not been satisfactorily disproved," says Thomas. "QDMA now recommends all venison harvested in CWD affected areas be tested before consumption."

"Hunters traveling to new areas should be aware of what they are getting into. Find out if you are hunting an area where CWD has been detected. This is vital to know for several reasons".

"If you are hunting an infected area it is vital you do not bring the disease home with you," said Thomas. "To avoid this, only bring home boned out meat and antlers that have been completely stripped of all tissue. Check the tread on your SUV, truck, and boots for soil before leaving the area and remove it if you find it. Have the meat tested for CWD and if it proves positive contact your Conservation Department before you dispose of the meat. They will normally have guidelines for proper disposal. It is vital that infected meat be handled properly. If you toss it out you have just created a CWD hotspot."

#### **Do Your Part**

The responsibility of managing

CWD should and does fall on state Conservation Departments and DNR's. However, as hunters, there are things we can do to assist the experts and help prevent the spread of CWD.

- 1. Report any and all sick deer immediately to the authorities.
- 2. If you know someone is transporting live deer into your area report them to the authorities immediately.
- 3. Do not cross any state line with anything other than boned out deer meat and antlers attached to a cleaned-out skull plate.
- 4. If you travel out of state to hunt find out if you will be hunting a CWD affected county. If so, get informed on where you should take a harvested deer for testing and any local regulations such as proper disposal of carcass parts.
- 5. Have any deer killed in a CWD affected county tested for the

![](_page_20_Picture_14.jpeg)

Biologists remove a lymph node located in the neck of whitetail deer for CWD testing. Photo courtesy Billy Pope, ADCNR.

![](_page_21_Picture_0.jpeg)

Lymph nodes are labeled and shipped to testing facilities to determine if CWD is present. Results normally take around two weeks. Photo courtesy Billy Pope, ADCNR.

disease. If the test results confirm the meat in your freezer is CWD positive, contact your local Conservation Department for information on how to dispose of the venison.

#### The Great Baiting Debate

"There is no doubt that in an area where CWD is located, allowing the continuance of baiting, feeding or mineral sites can enhance the spread of the disease from deer to deer," said Lindsay Thomas, Jr. "Deer concentrated at feeding sites or mineral sites urinate, defecate, maybe lick the same mineral rock, are more susceptible to contracting the disease. Because of this, QDMA supports the ban of these practices in CWD areas."

"Baiting practices are not going to bring CWD to your area. That's not what we are saying. Once you have the disease, baiting or feeding makes it more difficult to stop the spread of the disease. That is why we (QDMA) support not legalizing baiting where it is not already legal. If baiting is already legal and part of the tradition, we are not out to do away with that unless CWD is discovered. As a precautionary step, it is our belief that if you don't have baiting it's not a good idea to start. There is no advantage or good reason to bait and should you ever find CWD it is just one more thing you have to take away."

Another thing to consider is the sale of deer urine and attractants. If you have captive deer infected with CWD and are bottling their urine and selling it you are sending prions out into the world. However, blood and spinal fluid from infected deer carry a much higher prion concentration than urine so the chances of spreading the disease through urine is low risk.

The Archery Trade Association (ATA) has a program that screens producers and looks at protocols of where they got their deer, who they have been trading deer with, the history there, how they collect urine and how they test it for CWD. After looking at the risk factors ATA gives certain producers a check of approval that says these producers meet ATA standards and qualify for that program. Packaging and bottles display the ATA logo that says the product is ATA approved. QDMA advises hunters who purchase natural deer urine to only buy from companies who qualify for the ATA program and display their logo on the packaging.

#### **Rumors of a Cure**

You have probably heard rumors of a cure or vaccine for CWD. At this time those are false claims.

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![](_page_22_Picture_4.jpeg)

![](_page_22_Picture_5.jpeg)

Alabama's Department of Wildlife and Freshwater Fisheries, WFF, in conjunction with the department of Agriculture and Industries began sampling deer for CWD in 2002. To date more than 8000 deer have been tested and no CWD has been detected.

Fred Harders, assistant director of Alabama's Department of Wildlife and Freshwater Fisheries had this to say. "First let me be clear. In spite of what you may have read or heard; we have not discovered CWD in Alabama."

"Since the disease was discovered in Mississippi and Tennessee the department has intensified its efforts of testing for and preventing the disease in Alabama," said Harders. "We plan to test around 1500 deer per year with the emphasis on areas near Mississippi and Tennessee. We have implemented laws that forbid the moving of live deer and bringing deer carcasses into Alabama. Conservation enforcement officers are diligently monitoring for these violations of Alabama law and strictly enforcing them. We don't have it now and we don't want it in the future. We feel this is the best approach to keeping Alabama CWD free."

However, a former neuropathologist at Louisianan State University believes he is on the right track.

Dr. Frank Bastion believes his research points to spiroplasma, not prions, as the causative agent of CWD. In short, he believes bacteria, not malformed proteins, cause the disease.

Lindsay Thomas, Jr.—"Imagine you are sighting in your rifle. After several shots you have a tight group printed on paper, Then, for one reason or another you have one print high and left. Your next bullet hits close to the group. That one shot is an outlier probably because you jerked the trigger or flinched. You should trust that your gun is sighted where the most bullets hit. There are a lot of shots, a big grouping on paper, around the idea prions cause CWD. Fact is, the preponderance of evidence points to prions as the cause of CWD. One study pointing in another direction saying it is something else is not convincing. QDMA believes the evidence points to prions and sees the claim for bacteria as a big distraction. We are certainly open to every avenue and potential theory. At this time no one has been able to replicate Bastion's work. Meanwhile, in multiple studies, we have no problem at all making deer sick by giving them prions. We feel, for now, the smart game is to continue working on prions."

#### Close

The ultimate goal is of all this is to find a cure or vaccine for CWD. When that is done there is still a tremendous amount of work left to do. Treating sick deer is feasible in captive herds but in wild deer that task seems impossible.

![](_page_23_Picture_9.jpeg)

Hunters can help the effort to stop the spread of CWD by having deer harvested in CWD affected areas tested for the disease. Photo courtesy Billy Pope, ADCNR.

A vaccine could be administered by capturing wild deer and returning them into the wild. Over time, herds would be replaced by deer no longer susceptible to CWD. That is a monumental task but QDMA and other organizations such as the North American Deer Alliance and state game and fish departments are willing to take on the task.

In the meantime, our best hope is to prevent the further spread of this always fatal disease. The future of deer hunting as we know it hangs in the balance.

![](_page_24_Picture_2.jpeg)

CWD affects deer of all ages and is an always fatal disease. Photo courtesy Billy Pope, ADCNR.

![](_page_24_Picture_4.jpeg)

## **Beaver Control**

![](_page_25_Picture_1.jpeg)

#### Dana Johnson

Dana Johnson graduated from Auburn University with degree in Wildlife Science. He has over 25 years experience working as a field biologist assisting landowners with their property management objectives. He has worked on everything from prescribed burning and food plots to animal damage issues. He lives in Eclectic, Al with his wife and two children.

Depending on one's focus and management plan for their property, some landowners enjoy having beavers around. They are amazing engineers that work tirelessly doing something that most other animals can't do, making their own habitat. To beavers work is never complete. They are constantly building, repairing, and extending their dams. Some dams are so large they can hold back hundreds of acres of watershed. The world record is a nearly half mile long dam in Wood Buffalo National Park that measures 2,790 feet, surpassing the previous mark of 2,139 feet by a beaver dam in Three Forks, Montana. The amazing fact about the Three Forks dam is the height, 14' tall at the center. Beaver dams that are 100 feet long holding

back 30 acres of water are common. Once the dam is built, it becomes a wetland that is used by a host of creatures, both aquatic and terrestrial. If you are a waterfowl hunter and the focus of the property is to make an amazing duck hole with little investment, let a few beavers move in and give them a year or two.

Other landowners view beavers as destructive rodents that cost them thousands of dollars yearly. A beaver's instinct to create wetland habitat leads to flooding of hardwood and pine timber for extensive periods of time that ultimately results in the death of the timber. This can equate to large financial loss depending on the acreage flooded. Girdled trees can die due to falling or the loss of transporting nutrients. Pasture and crop land can be unusable if dams start holding water back to these areas. Clogged culverts can cause road flooding and major erosion. Finally, beaver bank dens in

pond dams can cause leakage or possible blow out. Although they can be wonderful to have on your property, if they are becoming a massive juggernaut the decision to live with or without them must be made. Costs vary but hiring a professional trapper can range anywhere from \$1000 to \$5000 depending on factors such as the severity of the situation, topography, access, and historic beaver activity.

#### **A Little Beaver Biology**

Beavers are in the Rodentia Family which also includes squirrel, mice, gerbils, gophers, porcupines and any other animal that has one pair of continuously growing incisors in their upper and lower jaws. Their incisors don't have enamel on them which allows them to wear down with use. If these mammals don't chew, their incisors could kill them. Beavers are herbivores which means they only eat vegetative material. They do not eat fish or any other meat. That pile of fish scales in scat on the pond bank is from an otter, but that's an article for another day.

Beavers are a little more active in the winter when green vegetation has died off. Once the lily pads, cattails, and other aquatic vegetation begins growing they don't move as much and stay closer to their den unless the dam has been breached. Even then, they might choose to hang around the lodge. Lodges are the large mound of sticks and mud often visible in the middle of the swamp or next to the shore. There is an underwater entrance which leads to numerous dens connected by travel corridors leading to an area for them to dry off and then to a main family den.

Another beaver home is the "bank den". If beaver sign starts to show up and no lodge is present, start looking next to a steep bank. They will make an entrance under water and create their cavities and tunnels above the

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![](_page_27_Picture_0.jpeg)

Typical pond created by a beaver dam.

water line. Over time they may begin to collapse. If this happens on a pond dam, it could be detrimental; one day you head to go fishing and the pond is no longer there.

Beavers usually live in family groups made up of and adult male and female with their sub adults and juveniles. They are monogamous but will find another mate if one of the adults dies. Some family groups can have more family members and may have multiple lodges in large areas. In most scenarios, a single lodge is all a family needs. While juvenile subadults assist with some of the work such as dam building, gathering for food cache's and helping raise kits, the adults do most of the work.

Beavers are territorial and will defend

their homes if an intruder is near. A family group can identify each other by castoreum, a substance secreted from their castor sacs located near the tail. They will make castor mounds around their pond to identify their territory. If they smell the castoreum of any other beaver, they will encounter it with serious aggression.

#### **Beaver Management**

Whether you just purchased your dream property with a 30-acre swamp, or just noticed that a culvert was getting clogged by sticks stripped of their bark, a decision must be made to live with or without beavers. Watershed, topography, historic beaver activity, and access all play crucial roles in developing a beaver management program. Should one decide to live without beavers, there are lethal and nonlethal approaches that can be used to remove beavers, and in certain situations, both methods are beneficial. There are some instances in which accepting that beavers will always be present is inevitable. One thing is for sure, a property owner must understand that whatever methods are used for beaver control, there is never a guarantee that they will work longterm and beaver issues may always be something with which to contend.

#### **Non-Lethal Control**

Non-lethal control techniques are viable options for beaver management in many circumstances. In areas where beaver swamps pass through numerous properties, it may not be difficult to get neighbors to invest in beaver control. On the other hand, landowners may not care enough about the issue to invest in a control effort. In the case of duck hunters, the beaver swamp is their waterfowl attraction. Others enjoy having them around because of the positive effects a beaver swamp can have on the environment. When a culvert is joining two large swamps, attempting to trap all the beavers out may be unrealistic, and non-lethal methods are a better option.

A method known as the "Clemson Pond Leveler" has been used by landowners for many years. It was developed at Clemson University for the purpose of controlling water levels in timber and agricultural areas. This method has also been used for water level control in green tree reservoirs, duck impoundments, and occasionally in small culverts. Landowners who enjoy duck hunting use the Clemson Pond Leveler to draw the water down to plant in the spring, but raise it before duck season.

The Clemson Pond Leveler is 20 feet

of PVC pipe in two sections with holes drilled in one of them. The diameter will be contingent on how much flow is expected, but 8" to 10" minimum is recommended. There is a mesh screen placed around the end that will be in the water behind the dam. The section on the downstream side can have an elbow or valve installed to control the water level. A break in the dam is made and the pond leveler is installed below the water line. This is important because the sound of water attracts the beavers, but if the whole device is under water on both ends then beavers have trouble figuring out why the water in their home is not at full pool. The recommended time to install the Clemson Pond Leveler is in the cool months when they are more active working on their dam.

There are some issues with these devices though. Sometimes beavers just build another series of dams below the leveler if it's feasible. If the device is

not held off the bottom one- or twofeet, siltation could compromise it over the years. If water levels fall below the pipe, beavers may begin to pack mud around it.

Extensions or fences are another nonlethal method that are typically the best option for culverts. Fencing is nothing more than installing 16-foot panels around the opening of the culvert. It needs to reach far enough out that it deters the beavers from trying to block it. Openings should be 4"X 6" to allow for small debris to flow through. The farther out the fence is from the culvert, the more effective it is. Fences should be tight to the bottom, otherwise beavers may burrow under it. Because beavers are poor climbers, having it 2 or more feet above the water level will make it more effective. Finally, it needs to be constructed in a manner that keeps beavers from coming in from bringing material over the top. Triangles,

![](_page_28_Picture_7.jpeg)

squares, and rectangles have all been successful in this type of exclusion device.

Culvert guards are also an effective method of beaver control. Culvert guards are welded rods that are put in front of the culvert to keep beavers from packing the culvert with mud. The downside of this method is that the guard itself provides a beaver a starting point for building a dam. With bars set horizontally in front of the dam, it is simple for beavers to float large logs and pack them in front of it perpendicular. It is also easy to put a layer of sticks in front of these guards and then pack it with mud, leaves, and other debris. The guard can, however, be lifted periodically to allow for the removal of any debris that can't flow through it.

Finally, live trapping in specialized traps can be an effective non-lethal

method for beaver control. Beavers can be caught and safely loaded into a vehicle and transported to another area. First, check with state regulations to check on the legalities of relocating any animal in your state. Although it is an option for non-lethal control, the trapping method should be scrutinized and many questions answered before implementing for several reasons. Once a beaver is caught, when will they be relocated, immediately or until the entire family group is caught? How long will you trap before catching the entire family? How do you know how many are in the family? On large swamps where multiple family groups reside, how do you know if the ones being caught are from the same family? Are they going to be released into public or private waters? Once relocated and released into unfamiliar areas, because beavers are very territorial, they are exposed to aggressive encounters with other beavers. Beavers new to the area have no lodge constructed; therefore, they are exposed to predation all day until one has been built. Lastly, the traps themselves are large and difficult to carry into a swamp requiring landowners to consider additional professional manpower and assistance.

Non-lethal control methods should be considered in any beaver management program. As with any technique, it's just another tool in the toolbox. Used solely and without monthly maintenance, many of these methods may fail in time. There are other approaches that were not discussed, but a simple internet search into beaver control will give landowners enough reading material for the next few days.

#### Lethal Control

Wildlife Tre

For hundreds of years, commercial trappers kept beaver populations in

![](_page_29_Picture_8.jpeg)

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![](_page_30_Picture_0.jpeg)

Beaver lodges are the large mound of sticks and mud often visible in the middle of the swamp or next to the shore. There is an underwater entrance which leads to numerous dens connected by travel corridors leading to an area for them to dry off and then to a main family den.

check. From the 1600's to the 1850's, beaver furs were highly valued, and the time spent trapping was worth the financial return. Fur was used to make hats that reflected an individual's social status. Over time, though, the demand for the fur decreased followed by a sharp decrease in its value. The beaver population had also declined due to heavy exploitation. Most recently, at the North American Fur Auction in 2018, the average price for a beaver pelt was \$13 in the East and \$8 in the West. The 2019 fur market forecast for beaver is \$10 to \$13. Finding someone to trap beavers simply for their fur will be difficult these days as the time spent is no longer worth the financial return.

Lethal control of any animal is controversial and, when the animal is not used as a resource for something else, can be socially unacceptable. Unfortunately, there are times when the decision to remove animals for damage and financial reasons must be made. Trapping can be the most efficient and affordable option without having to invest money in materials and labor. By combining such lethal with non-lethal control techniques, landowners can get damage issues resolved quickly while leaving an environment that discourages other beavers from setting up their homestead. Small family groups can be removed in a few days to a few weeks during certain times of year. Depending on the situation, sometimes removing a few dispersal beavers will solve the problem for years. In some instances, trappers could be working full time, with what seems like very little results. Just like

other methods of beaver control, trapping is just another tool in the toolbox.

Trapping yields the best results during certain times of the year. Beavers are most difficult to trap during the Spring season when green foliage has started to grow. Beavers don't have to move far from the lodge to feed. If the female has young, she may only leave the lodge a few times a day. Others may venture out on occasion during the day to grab a lily pad or two, but for the most part they stay relatively close to home. Until this foliage dies off, and beavers must venture further from their lodge for food, trapping can be tough. Additionally, in the warmer months, when beavers are not using their runs, crawl-overs, and trails out of the swamps as much, it makes trapping more difficult. Also, thick vegetation can make access to trapping areas quite the challenge. Beaver runs that are active all winter may not get used again until the first frost kills off the aquatic vegetation, forcing them to venture out. As a result, it can take twice as long to catch a family in spring and summer compared to fall and winter. Therefore, the cost of trapping can be much greater in the warmer seasons.

There are 4 main tools used for lethal beaver control; body grips, footholds, snares, and firearms. Each tool has a place depending on the situation. The 330-body grip is the most commonly used tool. Trappers with decades of experience and beginners setting their first trap line have the body grip in their arsenal. They are relatively inexpensive costing between \$15 to \$20 each depending on the store and brand. They are available in local large outdoor retail outlets or can be ordered online.

Body grips are versatile. They are heavy and bulky but probably take more beavers than all other tools combined. They can only be set in water and are used on dive sets, dam crawl overs, runs and castor mounds just to name a few. They can also be held up with a 330 stand or 2 sticks. Body grips should be purchased with a setting tool as well as a safety grip. These traps can be very dangerous for amateurs and professional guidance is highly recommended before beginning beaver control plan that includes the use of body grips.

The snare is another common trap but can be a little more difficult to use. Beaver snares are made from small diameter cable and have a lock that can slide down the cable and hold the animal. They are usually 5 to 6 feet long and can be tied off to a tree or other solid object. They are very effective on many types of sets including swim runs, castor mound sets, and where beavers are crawling to shore. They are safe to use, but more difficult to master. Advantageously, 100 snares will fit in a backpack along with all the necessary setting tools and a trapper can set all day if he wants. In Alabama, snares are required to be in the water. Snares do not kill beavers so upon capture, the trapper may use a small caliber firearm to dispatch the animal. A "choke stick" can also be used to release any non-targeted species accidentally caught in the snare.

A foothold can be one of the most difficult to master and can be dangerous, therefore, they should only be used with the aid of a professional. Footholds are set in water and can be used on castor mounds and dam

![](_page_31_Picture_7.jpeg)

<u>~~~~~~~~~~~~~~~~~~~~~~~~~~</u>

breaks. Properly set, they are designed to catch the beaver's back foot and when it dives to the bottom it can't resurface and drowns. Footholds are very effective on beavers that have become wary of body grip traps and snares.

The use of a firearm is the final lethal method of effective beaver control. A common technique, when using a firearm, is to break a small hole in the dam to get water flowing. A beaver will come to inspect the dam to fix it which will provide a prime opportunity to shoot it. This could take 15 minutes or 8 hours and is ultimately a waiting game. Having multiple shooters positioned 30 to 40 yards apart may yield a better result. Many people want to sit on their pond dock and shoot the beaver with their rifle while it swims across the pond. This is not recommended because of the high probability of the bullet missing the beaver and possibly ricocheting. It would be safer to be positioned above where the beaver may swim to reduce the possibility of a ricochet. This technique may have good results in areas with abundant beaver populations for an initial removal, or when that last one seems untrappable.

#### Conclusion

If you put 10 beaver trappers in a room and ask them what the best bea-

ver control method is, you'll get 20 different answers. Each trapper will approach a project differently and most will be successful. One beaver project might be solved using only a 330-body grip in a week, while another may take multiple lethal and non-lethal methods and 6 months to be successful. If you've identified a beaver problem, call multiple professionals and get their opinions. There may be a small fee for a site visit, but it would be worth it. Every situation requires a different approach and watching a video, then trying to set a foothold or 330 bodygrip on your own could end up in a trip to the emergency room.

![](_page_32_Picture_6.jpeg)

Entrance to the beaver lodge.

## *Wildlife Trends Journal* Management Calendar

![](_page_33_Picture_1.jpeg)

Opening or widening roadsides add both wildlife value and aesthetics to a recreational property.

#### Dave Edwards

Dave Edwards is a certified wildlife biologist and regular contributor to *Wildlife Trends Journal* and other hunting/ wildlife publications. Dave was honored as QDMA's 2007 Deer Manager of the Year and nominated in 2011 as Alabama Wildlife Federation's Wildlife Conservationist of the Year. Dave is President of Tall Tines Wildlife & Hunting Consultants, Inc. Contact him at Dave. Edwards@CabinBluff.com or 912-464-9328.

## Evaluate and repair existing roads and build new ones

Unless all of your roads are paved, road maintenance is an annual activity for most landowners. June and July are often the driest months in the Southeast (other than those of you lucky enough to get sea breezes and regular afternoon thunderstorms). Thus, this is a good time to work on or build new roads. Although you probably have a good idea of areas that need repair, the best time to identify road problems is during the wet season which is usually during late hunting season. Make notes during the winter then repair them when the property dries up in the summer. As you know, having all weather access to your property is important from a management perspective so that you can get tractors and equipment

into areas of your property, but will also make life easier and more comfortable for you during hunting season. While working on roads, consider increasing the roadsides where possible to enhance wildlife habitat (see calendar item below). These areas can be planted or simply maintained as native grass/ weedy areas that wildlife will use for food and cover. Wide roads also dry out quicker due to additional sunlight and wind.

## Widen roadsides to create roadside management areas

Creating roadside management areas can add wildlife and aesthetic value to your property. Roadside management areas are simply widened roadsides that allow various management to be applied that result in enhanced wildlife value. To create a roadside management area simply clear the understory and undesirable trees along a roadside and periodically apply periodic management such as mowing, disking or burning to maintain control of encroaching trees species and maintain a relatively low understory (avoid keeping a "manicured" look by mowing roadways often this does not offer as much wildlife value). How wide you make the area is site specific, but 10-20 yards wide is generally wide enough to accomplish the goal. Be sure to leave desirable mature trees within the managed area. These trees will provide shade to conserve moisture in the summer and will add aesthetics along the road. There are many ways to widen roadsides, but the practice of choice will be determined by the existing conditions (habitat type, age of trees, etc.). In some cases, roadsides can be widened by simply mowing. However, if the existing roadside is thick or forested heavier equipment will be required. I often incorporate widening roadsides into timber harvest

![](_page_34_Picture_3.jpeg)

Road work is not a glamorous job, but is necessary for land management and hunting access.

plans. That is, when an area is being thinned or cut it simply includes removal of trees within the desired roadside area. Regardless of how intensely you manage these areas, they will create more "edge" habitat which is preferred and used by most game animals. If you desire to intensively manage roadsides you can seasonally disk or burn them to promote desirable weeds, and/or install wildlife plantings such as clovers, sorghum, or wildflowers. Wildflowers provide both esthetics as well as bugging areas for turkeys. Managing roadsides not only increases the aesthetics of the property and adds wildlife value, but will increase wildlife viewing opportunities throughout the property.

## Conduct summer quail call counts.

Call counts conducted in May and June provide an estimate of the number of males available for breeding and an evaluation of winter survival. This information allows you to monitor the quail population's response to habitat management efforts and quail production. In much of the bobwhite's range, May and June are peak months that males will be actively calling as part of the breeding season. To obtain an index of male birds, set up several "listening points" on your property that can be used each year. Preferably space these locations far enough apart that you could not hear the same quail from different listening points. Call counts should be conducted at or shortly after daylight. To standardize the call count, arrive at the first station at sunrise, wait one minute to allow vehicle disturbance to settle, then listen for five minutes and record the number of quail heard whistling. Count and record the number of different individuals you hear. Continue until all stations have been monitored. For each survey, start the survey at a different listing point. You will need to conduct the call counts at least 5 different days for the most accurate estimates. The more counts you conduct, the more accurate your estimates will be (statistically speaking). We often conduct 10 call counts (10 different mornings) each May -June. After completing the call

![](_page_35_Picture_0.jpeg)

Conducting quail call counts provides an index of quail numbers allowing managers to assess how quail populations are responding to management being applied.

in hollow trees near water. Since nesting trees can be limited, providing artificial nest boxes can attract more woods ducks to your property and help increase local populations. Building, erecting, and annually maintaining wood duck boxes can be a relatively easy way for the entire family to be involved in wildlife management that is both fun and rewarding. One of the best designs I have used is built from a single 10'x12" cypress board. With a couple hinges, a small piece of hardware cloth, and some screws it is easy to turn a single board into an effective duck management tool. Wood ducks will begin searching for a suitable nest site as early as February. Therefore, install new boxes during winter so they can be used during the upcoming spring nesting season. The reason for building duck boxes in the summer is to allow them time to dry. "Green" wood (freshly cut or purchased) is often wet and very heavy making them more difficult to erect. Build them now then deploy them in the winter. Wood duck boxes should be cleaned out each year before nesting begins to

wildlife value of a property. Having said this, we all know the wildlife value created by dedicating land to actively managed food plots. Because all properties are unique with various habitat compositions, forest ages, diversity, timber management strategies, agricultural practices, and management on neighboring lands it is impossible to provide a "cookie cutter" amount of acreage that should be dedicated to food plots. However, if adding more acreage in food plots is in your plans, summer is a good time to create new food plots or enhance existing plots. I personally like to plan and mark/flag areas needing clearing during winter months while leaves are off allowing me to see the area better. Another advantage of doing this during winter is there are no snakes, ticks, and chiggers to worry about! I then come back in summer to do the "dirt" work. Through years of experience, I am a big fan of using mulching machines when creating new food plots, expanding existing ones, expanding roadsides, or creating new trails. A mulching machine, also referred to as a forestry

mulcher, uses a rotary drum equipped with steel chipper tools (or teeth) to shred vegetation. Heavy duty forestry mulchers can clear up to fifteen acres of vegetation a day depending on terrain, density, and type of material. However, 5-8 acres per day is more realistic for most applications I've used them. The advantage of using a mulcher is only needing a single machine to cut, grind, and clear vegetation verses needing a dozer, backhoe and farm tractor to do the same job. Mulching is essentially a one-pass and done type process. Because the vegetation is grinded into chips there are no debris or root piles commonly associated with dozer type clearing. Another advantage is mulchers are capable of clearing land of unwanted trees and brush with limited disturbance to soils leaving more nutrient rich top soil and reducing the risk of erosion. From a location and design standpoint, I always consider soil quality, hunting stand placement, preferred wind direction for hunting, hunter access, and obviously what the land, terrain, and habitat will allow. Where possible I try to create linear shaped food plots. Deer, particularly mature bucks, feel more comfortable and secure

![](_page_35_Picture_5.jpeg)

Building and installing wood duck boxes is a great way to provide additional nesting habitat on your property.

![](_page_36_Picture_0.jpeg)

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![](_page_37_Picture_0.jpeg)

Now is the time to initiate dove field preparations.

using linear plots which results in more sightings and harvest opportunities while hunting. Examples of this may include a "turkey foot", "V" shape, or "hub and spoke" aka "wagon wheel" shape. When expanding existing rectangular food plots, I often add linear "ears" or "fingers" that extend from the core food plot area. In this situation, deer often enter the fingers first then work their way to the more open plot. Regardless of the methods used to clear the land or the shape you design, summer is a good time to conduct this work. Doing so allows plenty of time for working and amending the soil in preparation for fall plantings.

## Start preparing and planting dove fields.

Dove field preparations should begin by June or July. Planting dates will depend on the soil moisture, crops you are planting, and the time required to produce seed. Common dove field crops include a variety of millets (e.g., dove proso, browntop, Japanese, pearl, etc.), sunflowers, grain sorghum, corn, and wheat. For best results obtain soil samples and apply required lime and fertilizer before planting. A mistake commonly made is planting too late. Most dove field crops generally take between 50 and 90 days for seed to mature. Know the maturity period for the crop you are planting and plant accordingly. Keep in mind that soil conditions and rainfall will play a role in when crops are planted. Don't hesitate to plant when conditions are right even if your crop will mature 2 weeks before dove season. While seed of planted grains offer attractive food sources for dove, maintaining a clean disked strip or two through the field offers dusting areas for dove. These are strips that you do not plant, rather, simply keep plowed through the summer and into dove season. Dove find these bare dirt areas attractive which will keep them in and around your field until grain seed is mature. It also offers landing areas and access to seed once it matures as well. Another trick that

I have used many times with great success is to include/spread pea gravel (very small gravel) along roads that are within the dove field area. Dove "eat" the smallest particles of gravel to assist in digestion (used in their gizzard to break down seeds and other food parts). This is the reason dove are often seen "feeding" along roadsides.

## Monitor and control weeds in summer food plots

If you planted summer food plots (which I hope you did), it is important to monitor weed encroachment to ensure you get the most benefit out of your food plots. If you are new to planting summer crops, you will soon become an expert at weed identification and herbicides. Just by nature of the warmer conditions and excellent growing conditions, food plot managers have a tougher weed battle to fight during the summer. There are many summer weeds that will take advantage of the lime and fertilizer you applied to the soil for your summer food plot plants. If left unattended, these

weeds can, and will, take over your summer food plot resulting in less quality forage for your wildlife. Make food-plot-specific notes of the weeds you are having problems with so that you can adjust your planting the following year. For example, if you have grass type weed problems (such as Johnson grass), plant a broadleaf crop on that plot so that you can spray grass-selective herbicide to control the problem grasses without harming your crop. Vice versa, if you have broadleaf weeds, plant grass or grain crops so that you can spray broadleaf-selective herbicides. Obviously, another option is to plant "RoundUp Ready" summer crops. Doing so allows you to apply glyphosate (RoundUp) after germination of your crop to kill all competing weeds whether they are grasses or broadleafs. While weeds are persistent, we are smarter!! Anticipating your site-specific weed problems, and planning/planting accordingly will help you make the

most of your summer food plots and efforts.

#### Plan now for late summer trail cameras - Create mineral licks

While the nutritional benefits of providing mineral licks for deer have not been well studied, they are cheap to create, deer use them, and they do not appear to have any negative nutritional effects. In fact, most deer biologists think there are nutritional benefits of providing minerals for deer. You can create a mineral lick using commercial blends of dry minerals and/or placing mineral blocks in desired locations around your property. I have had great success getting deer to use commercial mineral rocks, such Bio-rock or Trophy Rock, throughout summer and into early fall. Using a mineral lick or salt rock is also a good way to reduce bear or hog problems commonly experienced when using corn. Deer tend to use mineral licks the heavi-

est from summer through early fall. The key, however, is to establish the mineral licks early in the summer to allow deer time to find them and begin using them. My experience with mineral licks has been that the longer they have been established, the better they are. Rains dissolve the minerals and saturate the stump or area they are placed. Evidently "leftover" minerals or salt that attracts them lingers and deer often come back to the same site the following year. Having said this, corn is still the "go to" attractant if you are conducting a true camera census on a property, but mineral licks offer a cheaper way to get deer in front of cameras for "casual" photographing. If your property is in a state where "baiting" with corn is illegal, and you plan to conduct a camera survey or install cameras in early fall to photograph bucks, get mineral sites established now so that deer are using them during later summer/early fall when you want to photograph them.

![](_page_38_Picture_5.jpeg)

Mineral lick sites created in early summer will be great places to hang trail cameras later this summer or early fall to assess deer.

![](_page_39_Picture_0.jpeg)

![](_page_39_Picture_1.jpeg)

![](_page_39_Picture_2.jpeg)

## Memories won't fade away if you keep telling the stories

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![](_page_39_Picture_5.jpeg)