



Louisiana

Wildlife Insider



p.9



p.10



p.14

IN THIS ISSUE

- P.2 Feral Hogs in Louisiana**
by Jim LaCour, DVM and Rusty Berry, DVM
- P.5 Louisiana Hunting Heritage Program**
by John Sturgis
- P.6 Louisiana Deer Habitat & Plant Nutrition Level Study**
by Scott Durham, Levi Horrell and Mike Chamberlain
- P.9 Louisiana Hunters for Heroes**
by Carrie Salyers
- P.10 Archery in Louisiana Schools**
by Robert Stroede
- P.12 Conservation Partnership: Louisiana Pearlshell Mussel**
by Gregg Elliott and Beau Gregory
- P.14 Want More Squirrels?**
by Jimmy Stafford
- P.16 Conservation Programs Important to Louisiana:**
The Agricultural Act of 2014 (Farm Bill)
by Cody Cedotal
- P.17 Instructor Spotlight: Kim Cedars**
- P.18 Wildlife Management Calendar of Events**
- P.18 Featured Biologist: Tony Vidrine**
- P.19 Featured Biologist: Cassidy Lejuene**
- P.20 Wildlife Staff Directory**
- P.22 Coastal & Nongame Resources Staff Directory**
- P.23 Louisiana Announces Black Bear Information Website**
- P.23 Habitat is the Point: Prescribed Burning**
- Back Cover Hunter Safety**
by Fred Kimmel



p.16

Feral Hogs in Louisiana

BY JIM LACOUR, DVM, LDWF Wildlife Veterinarian
RUSTY BERRY, DVM, LDWF Wildlife Veterinarian

Feral hogs (*Sus scrofa*) are invasive animals which have exhibited exponential population growth within the past few years in Louisiana. Pigs are not native to North America; they were introduced by the Spanish explorer DeSoto in the 1500s. They were initially domesticated, with some being kept in pens and others allowed to roam free to live off of the land. Those that were allowed to roam were typically kept close with food or rounded up on a yearly basis to harvest the young pigs for slaughter or sale. Many years later, Eurasian wild boars were introduced and bred with “escaped” domestic swine. The pigs released into the wild reverted to the “feral” or wild state. They frequently group together into herds called “sounders.”

The absence of yearly culling by farmers combined with a very high reproductive rate, low natural mortality, and intentional translocation has led to the population explosion that we are currently experiencing.

BIOLOGY

Feral hogs have a gestational period (pregnancy) of 114 days. The typical litter size is six piglets, although litters of more than 10 are not uncommon. Feral hogs experience puberty at 6-8 months of age and may have their first litter at less than 1 year old. Feral hogs typically nurse their young for four to six weeks and then wean them. Sows (female hogs) return to heat within one week of weaning the piglets, and the cycle starts over again. Gilts (young sows

which have not reproduced) exhibit what is known as the “boar effect.” This phenomenon results from exposure to and frequent association with boars (male pigs) and induces earlier heat cycles with an increased number of fetuses produced at breeding. The piglets typically have a high survival rate and have few, if any, predators in Louisiana (other than humans) once they grow out of the striped stage. This extremely high reproductive rate makes pigs the most reproductively efficient large mammal.

Boars typically disperse from the sounder at approximately 1 year of age. They will separate themselves from the groups of pigs and live solitary lives, travelling sometimes nightly from sounder to sounder looking for sows to breed. Boars will typically smell every sow in the sounder and if a sow is exhibiting the estrus pheromones, the boar will attempt to breed her. If the sow is receptive, she will stand for the boar and copulation will occur. If the sow is not receptive, the boar may stay with or near the sounder until the sow is ready for breeding.

Feral hogs routinely live to 10-12 years, while some have been documented living beyond 15 years. These hogs may reach 250 pounds by 2 years of age. Boars in excess of 500 pounds have been documented, and even larger ones probably exist.

Feral hogs are omnivores and feed on many different items. Hogs will eat the seed-heads of rice, ryegrass and oats, root





Damage caused by feral hogs.

tubers, grubs, reptiles and amphibians, and have been documented eating deer fawns, lambs, turkey eggs, turtle and alligator eggs as well as carrion. Feral hogs will eat freshly planted corn and soybean seeds, going down the rows shortly after planting. They eat corn stalks and ears, sugarcane and wheat. Feral hogs thrive on acorns and compete heavily with deer and other wildlife for this resource.

DAMAGE

Feral hogs can cause extensive monetary losses to farmers through crop damage and seed consumption. Annual agricultural loss estimates are in the billions of dollars nationwide. Hogs also destroy forest seedlings and alter both propagated and natural reforestation. Hogs damage the environment via their rooting in search of food, which leads to soil erosion, and subsequent siltation of streambeds. Bacteria such as *E. coli*, *Salmonella* and *Shigella*, which are carried in the intestinal tracts of pigs, can pollute waterways. Additionally, browse for other wildlife is destroyed, and mast, which is a primary winter food source for white-tailed deer and other wildlife, is consumed by hogs, ultimately impacting game-animal populations.

DISEASE

Feral hogs contract and carry a myriad of diseases, some of which are contagious to domestic livestock and humans.

Swine Brucellosis

Swine Brucellosis is a bacterial disease of pigs caused by *Brucella suis*. This is a venereal disease of feral hogs spread by sexual contact or by the consumption of aborted piglets, placentas or amniotic fluids released during the birth process. The bacteria may cause lameness, abscessation, arthritis, abortion and orchitis (testicular

swelling) in pigs. The bacteria circulates in the pig's blood for up to 60 days after contracting the disease and may be viable in the reproductive tract and embryonic fluids for the life of the animal. Humans may be infected through contamination of open wounds or mucous membranes, such as the eyes, nose and mouth, with infected blood, reproductive secretions or amniotic fluid. *Brucella suis* causes Undulant Fever in humans, resulting in recurring high fevers, malaise, joint pain and possibly orchitis (testicular swelling). It may be cured by prompt, early antibiotic therapy, but if left untreated may affect a person for life. Hu-

man fatalities from swine brucellosis are possible but rare. Surveillance of over 500 feral hogs by LDWF biologists has demonstrated an incidence of 3.5 percent statewide with portions of Evangeline Parish approaching 50 percent incidence.

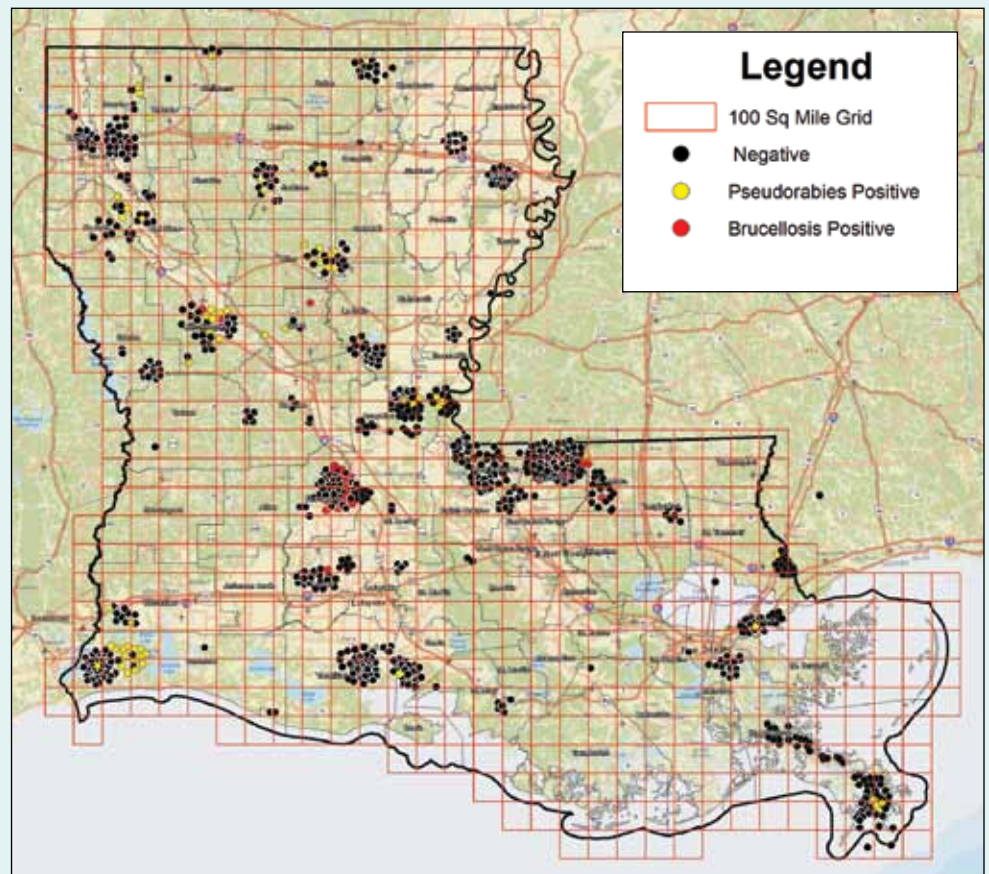
Pseudorabies

Pseudorabies is a herpes virus of pigs. This disease is contagious to most mammals except humans. It is spread among pigs venereally or through contact with saliva, urine or feces. In pigs pseudorabies may cause abortions, weak or stillborn piglets. Dogs are particularly susceptible to this disease and may contract it through contact with infected pig saliva, urine or feces. It is highly fatal to dogs with death typically resulting within one week of contracting the disease. There is no treatment for pseudorabies in dogs. Serological surveillance of over 500 feral hogs by LDWF Biologists has shown that the incidence of pseudorabies is 8.4 percent statewide with portions of Concordia Parish approaching 25 percent incidence.

Trichinosis

Trichinosis is a disease of feral hogs which is caused by a nematode parasite (worm) which encysts in the skeletal muscle of the pig. Typically this parasite does not

BRUCELLOSIS INCIDENCE IN TESTED LOUISIANA FERAL SWINE



cause injury to the pig, but consumption of undercooked pork may lead to infection of humans. Trichinosis in people causes fever, malaise, muscle pain and “flu-like” symptoms. It is typically not fatal, but fatalities have been reported when the parasite encysts in the heart or diaphragm.

Tularemia

Tularemia is a bacterial disease caused by *Francisella tularensis*. There are many different strains of these bacteria which cause varying degrees of illness. This bacterial infection is contagious to humans through contact with contaminated blood, respiratory secretions, urine or saliva. Fatalities have been reported.

Leptospirosis

Leptospirosis is a bacterial disease caused by *Leptospira spp.* bacteria. These bacteria may cause a myriad of diseases in pigs but typically infect the kidneys and liver. Humans may be infected through contact with infected blood, urine or other bodily fluids. The disease causes high fever, joint pain, anemia and liver and kidney infections in people and may be fatal. Additionally, LDWF is currently investigating abortions in white-tailed deer caused by leptospirosis transmitted from feral hogs. LDWF surveillance has revealed that 80 percent of feral hogs tested positive for leptospirosis, with 12 percent having very high antibody titers indicating current infection.

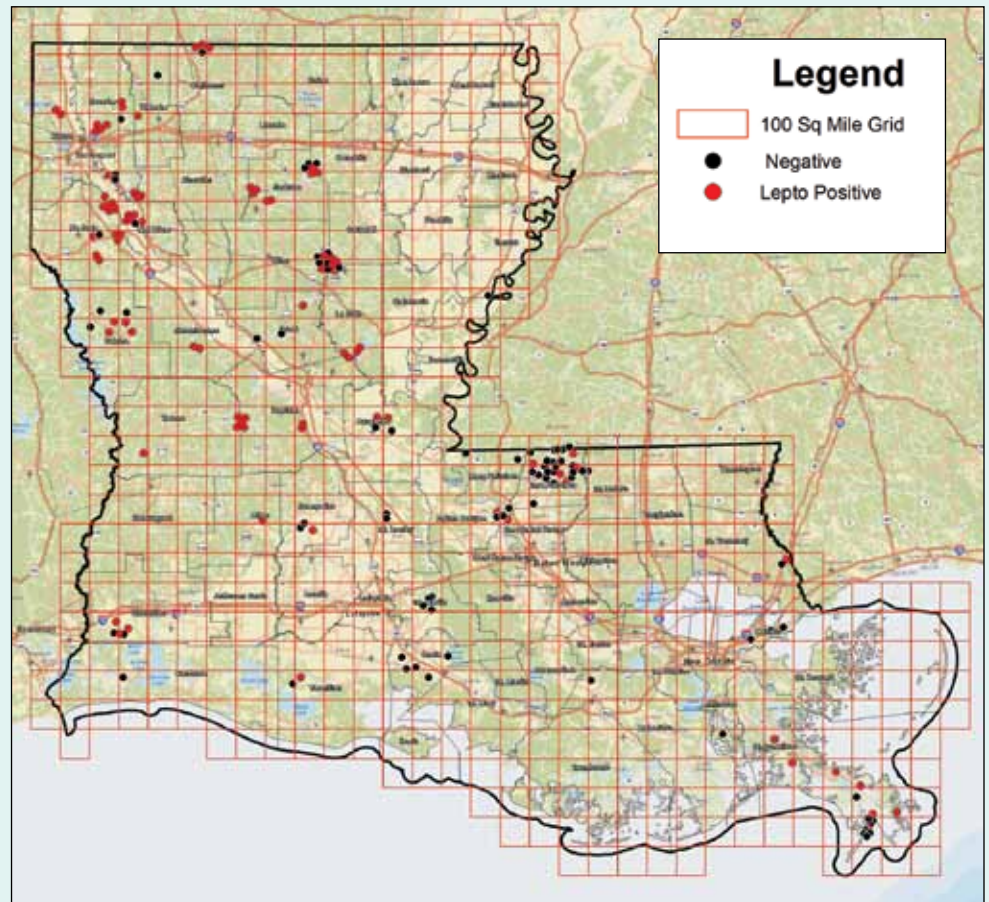
Swine Influenza

Swine Influenza is an Influenza A1 virus. This family of viruses only infects pigs, birds, horses, dogs and humans. Swine influenza is contagious to humans and the virus may recombine with human and/or avian influenza to make a very virulent strain. This occurred with several worldwide influenza pandemics in the past. Swine Influenza is spread among pigs and to humans by contact with nasal, oral and respiratory secretions. Infection of both pigs and people causes high fever, respiratory signs and potentially death.

DISEASE SURVEILLANCE

Disease surveillance in the feral hogs of Louisiana is conducted year-round by the LDWF and USDA Wildlife Services. Feral hogs are harvested via traps and daytime and nighttime shooting and are tested for an array of diseases including, but not limited to, swine brucellosis, pseudorabies, leptospirosis, trichinosis, tularemia, classical swine fever and swine influenza. Addi-

LEPTOSPIROSIS INCIDENCE IN TESTED LOUISIANA FERAL SWINE



tional blood or tissue samples are harvested from animals collected for cooperative research projects with universities.

Trends in these diseases are monitored and documented. Baseline levels are obtained in the feral hog population. By these means, trends in disease and or population movement may be monitored and information regarding diseases that are infectious to humans may be passed on to hunters and trappers, as well as other regulatory agencies that are mandated to act for security of human health.



Photo by Craig Hicks (forestryimages.org)

YOU CAN PREVENT THE SPREAD OF DISEASE BY FOLLOWING THESE SAFETY PRECAUTIONS:

1. Always wear rubber, vinyl or nitrile gloves when handling feral hogs to prevent contact with blood, saliva, urine etc. This includes handling raw meat from the freezer prior to cooking.
2. Wear glasses, goggles or a face shield when processing feral hogs to avoid contamination of the mucous membranes (eyes, nose and mouth) with infected body fluids from feral hogs.
3. Never eat, drink, smoke or use oral tobacco products while processing feral hogs. This will prevent inadvertent contamination of the mouth with blood or other fluids from the pig.
4. Always clean utensils, coolers, cutting boards, etc., with scalding hot water and chlorine bleach to kill any bacteria that may have contaminated the tools.
5. Always cook pork from feral hogs to at least 165°F before consuming it. This cooking temperature will kill all of the pathogens listed above and render the meat safe for human consumption.

Louisiana Hunting Heritage Program

BY JOHN STURGIS,
Louisiana Hunting Heritage Program Manager

Most individuals that hunt have someone they can thank for teaching them the skills necessary to do so. No one is born with the knowledge it takes to hunt a wise old buck, stalk a squirrel or call a duck. These endeavors require skill, skills which take time to learn and which grow continually each time we engage in the sport. When I look back at the years of time spent in the outdoors I realize that I will never know everything there is to know about hunting; there is always more to learn. I am fortunate to have had someone who was willing to get me involved in hunting, a sport that I have grown to love. I was taught what I needed to know in order to be my own outdoorsman. Unfortunately, there are those who have not been so lucky. Those who were not part of a hunting family, did not have friends who hunted or, for whatever reason, did not have the opportunity to get involved in hunting. But as the saying goes, "it's never too late," all that you need is a desire, willingness and effort.

It is for this very reason the Louisiana Department of Wildlife and Fisheries (LDWF) developed the Louisiana Hunting Heritage Program (LHHP). LHHP serves to connect experienced hunters (mentors) with novice hunters (apprentices) who would like to learn how to hunt. In good time, they too can acquire the skills necessary to become an outdoorsman. Obtaining the outdoor skills and knowledge to strike out on one's own can certainly be viewed as a benchmark where it can be boldly stated "I am now a hunter." Although it can be viewed as an individual accomplishment, hunting is very much an activity that is enjoyed even more when shared with others. There is something about hunting that binds us in a way like nothing else can. It's not what we harvest or even if we do, but the camaraderie, outdoor experience and connection to wildlife that creates the magic and enables this to happen. The LHHP is

connecting apprentice hunters with mentor hunters, and great success stories are emerging. Let's take a look at a few of these mentors and apprentices and see how they are changing people's lives.

Jimmie Martin grew up in a non-hunting environment. At first, his goal was to learn how to hunt. In his first season of hunting through LHHP, Jimmie has experienced both duck and white-tailed deer hunting in South Louisiana. Now that he has given it a try and realizes how much he enjoys hunting, Jimmie's greater goal is to teach his wife and children how to hunt and to share the experience with them. Under the mentorship of Jason Juban and Trent Griggs, Jimmie is well on his way to doing just that.

Pam Dufour's appetite to hunt was whetted by attending LDWF's Becoming an Outdoors Women (BOW) program which introduces women to outdoor activities. Through LHHP, Pam was connected to John and Gypsy Hanks, who provided her with a hunt in which she was able to harvest her first white-tailed deer. Pam has hunted with her mentors on other occasions and continues to benefit from their knowledge of

the outdoors. Pam has also joined a hunting club, purchased an ATV and a hunting rifle. Most importantly, Pam is learning hunting skills and has grown to become a competent hunter.

As a child from a single parent family, Mikal Moore didn't have someone to introduce him to hunting. After enrolling in the LHHP, Mikal was paired with Chad Moore (no relation to apprentice) who provided Mikal with some small game hunting experiences. Mikal is now "hooked on hunting" and looks forward to the upcoming hunting season.

The LHHP is producing much more than just another hunter. The mentor/apprentice pairings are resulting in camaraderie and lifelong friendships. As apprentices acquire adequate hunting skills they will reach the mentor plateau and in turn, can pass on the knowledge they have gained.

If you are interested in learning to hunt or would like to serve as a hunting mentor, visit the Louisiana Department of Wildlife and Fisheries LHHP website (<http://www.wlf.louisiana.gov/louisiana-hunting-heritage-program>) and submit an enrollment application.



L to R: Trent Griggs, Jason Juban, Jimmie Martin



LEFT: Mikal Moore with mentor Chad Moore. RIGHT: Gypsy Hanks provides instructions to Pam Dufour on how to process a deer.



Louisiana Deer Habitat & Plant Nutrition Level Study



BY SCOTT DURHAM, LDWF Deer Program Manager

LEVI HORRELL & MIKE CHAMBERLAIN, Warnell School of Forestry (University of Georgia)

Most serious white-tailed deer managers are keenly aware of the needs of deer. Food, cover and water are critical in the life cycles of most animals, and deer are no exception. We cannot over emphasize the importance of good understory conditions, diverse plant communities, browse avail-

ability, and soil fertility. Although the nine deer habitat types in Louisiana are based on vegetative cover types, they are closely tied to soil fertility. Higher soil fertility generally results in greater plant biomass and digestible energy for deer. In general, higher mineral levels in soils correlate with heavier deer and higher Boone and Crockett scores. Soil types and other environmental conditions determine plant communities and nutritional levels. It is at this basic level that wildlife exists, thrives and reproduces.

In 2011, an ambitious two-year project designed to provide information on deer browse nutrition and habitat quality across Louisiana was initiated. Research is never easy, and some of the results were a little surprising. In 2011 Louisiana experienced a record drought, but 2012 was a normal rainfall year. To complicate matters further, the Morganza spillway was opened in 2011, and two of our study sites were compromised due to the flooding. Because of this

and other confounding issues, this article will primarily focus on results from 2012.

NUTRITIONAL VALUE OF DEER FOOD PLANTS

Most hunters are aware of how important protein is in a deer's diet. Maintenance level (the amount needed to maintain current body condition) crude protein (CP) in a deer's diet is about 6 percent, but pregnant and lactating females need more protein. During the third trimester of fetal development and during lactation, 14 percent protein is thought to be the minimum level necessary to successfully raise one fawn. However, many are not aware of the importance of digestible energy (DE). Some research has shown digestible energy to be more important than protein, at least at certain times of the year. Optimal dietary mineral requirements are not yet well understood in deer, although we know they are important to varying degrees. We also

LOUISIANA DEER HABITAT UNITS

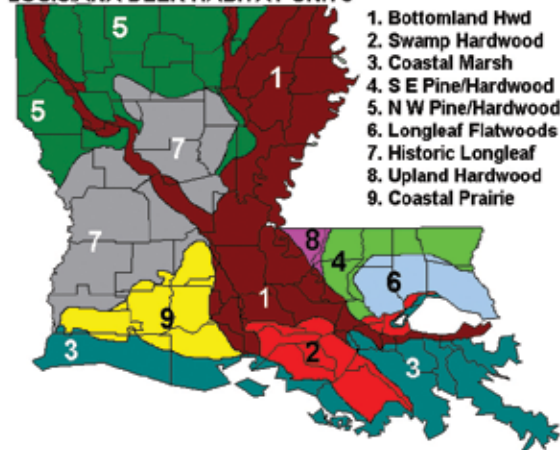


Table 1. Top 10 deer browse plants in crude protein, 2012.

Plant Name	Site	Habitat Type	CP%
Wisteria	Attakapas WMA	Swamp Hardwood	20.75
Elderberry	Sherburne WMA	Bottomland Hardwood	20.63
Bog Hemp	Sherburne WMA	Bottomland Hardwood	19.68
Illinois Bundleflower	Yancey WMA	Bottomland Hardwood	18.60
American Beautyberry	Idlewild (LSU)	Southeast Pine-Hardwood	18.04
Melothria Pendula	Sherburne WMA	Bottomland Hardwood	17.54
Elephant's Foot	Union WMA	Northwest Pine-Hardwood	16.99
Goat's Rue	Lee Forest	Southeast Pine-Hardwood	16.91
Everlasting Pea	Yancey WMA	Bottomland Hardwood	16.80
Paw Paw	Tunica Hills WMA	Upland Hardwood	16.37

know that the ratios of some minerals, such as two parts calcium (Ca) to one part phosphorus (P), are critical.

To sample browse production, plant species diversity and nutritional components, 570 circular exclosures 1-meter in diameter were installed on state, federal and private lands representing the nine different habitat types across the state. Sampling emphasis was given to bottomland and mixed pine hardwood habitats, where deer densities and harvest are generally highest. New growth of plants within the 1-meter exclosures was clipped, dried and weighed during the summer, and nutritional analysis was conducted.

Plant crude protein levels were quite variable among species and habitat types. For example, common ragweed ranged from 5.4 percent to 16.3 percent crude protein across all samples in 2012. Blackberry ranged from 6 percent to 11.6 percent crude protein. Crude protein levels were variable even among the same species on the same study site. The top 10 plants in crude protein for 2012 are shown in *Table 1*.

Wisteria is a woody vine in the legume family. It is readily browsed and somewhat common. In Louisiana we have both the native wisteria (American wisteria) and exotic wisteria (Chinese wisteria). Because of its wildlife value, American wisteria should be encouraged, whereas Chinese wisteria outcompetes native plants and should be eliminated whenever possible. Our findings show that a high value plant can occur in a lower productivity habitat to help increase carrying capacity. Elderberry is one of the most highly preferred deer foods across the state. On Sherburne WMA, when this plant gets too tall to browse, deer will actually ride it down with their bodies so they can access the leaves and other succulent parts. It can be so heavily browsed that it may not regenerate in high density deer areas. Plants like elderberry that carry such high levels of protein are highly selected by deer. Bog hemp is a very common somewhat shade tolerant forb. It is commonly browsed in bottomland habitats. Illinois bundleflower is a preferred browse plant that is primarily observed in open areas along field edges such as pipeline or power line rights-of-way. Bundleflower seed can be purchased and planted in food plots. American beautyberry is a common understory plant that is also fire tolerant. It is a late summer to fall browse plant. Deer eat the purple fruit clusters, stems and leaves. Creeping cucumber is a slender herbaceous vine that deer browse in alluvial woods. Elephant's foot is a common preferred sum-

mer forb that deer regularly browse all over the state. The last three deer browse plants in the crude protein top 10, interestingly, are not highly preferred. Goat's rue is an herbaceous legume that is usually found in pine forests with a history of prescribed fire or disturbance. It is often found in areas of lower deer density. Everlasting pea is most commonly found on alluvial soils. Paw paw is an aromatic shade-tolerant woody shrub common in the upland hardwoods habitats.

Other plants with crude protein levels greater than 14 percent, included common ragweed, dove weed, climbing hempweed, beggar's tick, passion flower, green briar, violets, mimosa, and privet. Plants commonly browsed by deer in swamp habitats that contained very high crude protein levels included dotted smartweed, bull tongue and pickerel weed.

In general, many of the species we sampled contained lower amounts of crude protein than reported in other studies. The historical drought of 2011 likely affected our results and could have reduced crude protein even in 2012 when normal rainfall patterns resumed. Crude protein levels can be reduced by 50 percent during extreme droughts.

Copper is thought to be a very important mineral to deer, and when deficient, may limit reproduction. The top 10 ranking plants in copper for 2012 are shown in *Table 2*.

Carya sp. is the pecan and hickory genus, and is not a highly preferred deer food. However, deer readily browse sprouts from fresh cut stumps. *Carya sp.* was also high in copper at Yancey WMA (25 ppm). Ash and trumpet creeper are preferred woody browse plants and ranked very high in copper as well. Trumpet creeper was also high in copper at Yancey and Sherburne WMAs. Elephant's foot is high in both copper and CP, making it a doubly valuable deer food. *Eupatorium sp.*, golden rods and verbena, are important summer herbaceous plants that deer browse on power lines, pipelines, old fields and anywhere sunlight or an "edge" occurs. Sassafras is an aromatic woody plant that deer readily browse. Wood sage is in the mint family, associated with bottomland soils, and is commonly browsed where it occurs. American beautyberry, also very high in crude protein, is the last on the top 10 copper species, also making it a highly desirable plant.

NUTRITIONAL VALUES BY HABITAT TYPES

The northwest pine hardwoods had the greatest number of plant species sampled. Plant diversity is an important factor that influences deer carrying capacity. The northwest pine-hardwood region of Louisiana consistently produces the highest overall deer harvests by parish. The swamp, upland

Table 2. Top 10 deer browse plants in copper, 2012.

Plant Name	Site	Habitat Type	Cu (ppm)
<i>Carya sp.</i>	Tensas NWR	Bottomland Hardwood	58
Ash	Union WMA	Northwest Pine-Hardwood	45
Trumpet Creeper	Cypress Plantation	Upland Hardwood	36
Elephant's Foot	Union WMA	Northwest Pine-Hardwood	29
<i>Eupatorium sp.</i>	Attakapas WMA	Swamp Hardwood	20
Golden Rod	Union WMA	Northwest Pine-Hardwood	19
Sassafras	Union WMA	Northwest Pine-Hardwood	19
Wood Sage	Attakapas WMA	Northwest Pine-Hardwood	18
Verbena	Union WMA	Northwest Pine-Hardwood	17
American Beautyberry	Idlewild (LSU)	Southeast Pine-Hardwood	16



and bottomland hardwood had the highest levels of crude protein in 2012. Upland and bottomland hardwoods consistently rank highest in deer density and deer killed per square mile. Swamp hardwoods can be vulnerable to flooding and are largely an aquatic habitat with lower plant diversity. However, large deer are often harvested in swamp habitats, and the crude protein levels observed in this habitat the year following the drought were impressive and actually the highest of the hardwood habitat types in 2012. It makes sense that swamp habitats may not be as negatively affected by drought, since water is generally not limited. The longleaf type habitats exhibited the lowest levels of crude protein in 2012.

Levels of crude protein and digestible energy were not correlated, which is an interesting finding. Digestible energy is basically the caloric intake deer are receiving measured in kilocalories/gram of dry matter intake. These results again remind us of the importance of plant diversity when managing for sustainable deer herds. Each plant may contribute more or less in minerals, crude protein, digestible energy or vitamins. Digestible energy levels were very similar across all habitat types in 2012. For maintenance of deer in southern regions digestible energy requirements are about 85-107 kcal/kg 0.75/day. Fawns during fall and yearlings in summer have double those requirements.

A summary of the top ranking habitat types by mean concentrations of selected minerals measured in 2012 is presented in Table 3.

Table 3. Top ranking habitat types in mean mineral concentration, 2012.

Mineral	Habitat Type	PPM
Phosphorus	Swamp Hardwood	2,965
Potassium	Swamp Hardwood	22,747
Calcium	Bottomland Hardwood	14,517
Magnesium	Coastal Prairie	3,703
Zinc	Bottomland Hardwood	93
Copper	Bottomland Hardwood	9
Manganese	Southeast Pine-Hardwood	812



Swamp hardwood samples contained the greatest amounts of phosphorus and potassium, whereas samples from bottomland hardwood areas were highest in calcium, zinc and copper. Calcium and phosphorus, in the required 2 to 1 ratio, are important bone building elements and important in antler growth for bucks.

Among different species and habitat types, wide ranges in mineral concentrations were observed. In the southeast pine hardwood habitat type, calcium concentrations ranged from 3,431 ppm in yellow jasmine to 13,454 ppm in arrowwood. Copper ranged from 3 ppm in wax myrtle to 16 ppm in American beautyberry. Phosphorus ranged from 692 ppm in tree sparkleberry to 2,377 ppm in golden rod. American pokeweed, a highly preferred browse plant, was highest in magnesium in 2011. During both years, yaupon exhibited high levels of manganese. In 2012, eastern baccharis had high levels of sodium across all habitat types and study sites.

Blackberry showed an inverse relationship with calcium and crude protein at two study sites. At Union WMA, blackberry measured 11.60 in crude protein with 6,519 ppm calcium. At Tensas NWR, a sample measured 5.99 in crude protein with 13,958 ppm calcium.

Differences in mineral concentrations were observed within the same species at the same study location. At Union WMA, horse sugar calcium level samples were measured at both 5,819 ppm and 10,321 ppm. At Ben's Creek WMA, golden rod sodium levels were measured at 510 ppm and 4,737 ppm. At a study location in southwest Louisiana, mountain mint samples had very different mineral levels; potassium was measured at 12,193 ppm and 9,626 ppm, calcium was measured at 20,107 ppm and 7,413 ppm, and sodium levels were measured at 7,720 ppm and 270 ppm.

Most of the hardwood habitat study sites had phosphorous levels above the minimum 2,500 ppm needed for optimal growth in young deer. Other habitats types

did not, although each contained at least one plant species that did provide the minimum of 1,400 ppm needed for adult deer. For calcium, all habitats except longleaf flatwoods exceeded the 400-5,100 ppm needed for optimal growth in fawns.

We attempted to calculate total forage values to give inferences about nutritional carrying capacities of habitats. Habitats with the greatest volume of forage appeared to offer the highest potential carrying capacity, even though they may not have had the best nutrition. Preferred browse plants that contributed the most biomass (forage quantity) included grapes, American beautyberry, blackberry, dewberry, honeysuckle, green briars, poison ivy, rose, asters, and golden rods. Less preferred browse plants that provided high biomass included yaupon, ferns and wax myrtle. Browse plants that produced the most biomass in swamp habitats included bull tongue, alligator weed and dotted smartweed.

It is clear that all habitats are complex and each offers unique nutritional inputs for deer and other wildlife species. The high level of variation in crude protein, digestible energy and minerals could be due to many factors, including the differences in plant species, soil types, forest management practices, hydrology, and rainfall amounts. The amount of sunlight a plant is receiving will affect the amount of new growth the plant is producing. New plant growth has the highest levels of nutrients and deer have the ability to select only the best parts of plants when plants are adequately available, and deer populations are in balance with their habitat.

Evaluating the nutritional quality of an area through forage analysis can give insight into productivity and the carrying capacity of the habitat. Our results clearly indicate the need to manage for high levels of plant diversity to meet the many needs of different sex and age classes of deer. Additionally, managing for high volumes of plant growth of species best adapted for particular habitat types is important. This study provided nutritional data for many plant species previously unpublished in Louisiana. Future publications will include this information and be available on the department's website.

For more information on this study or on our Deer Management Program, please contact Scott Durham, Deer Program Manager, @ 225-765-2351 or email: sdurham@wlf.la.gov.



Louisiana Hunters for Heroes

There are events in life that remind us of all the good that remains in the world. An event that makes you stop and reflect on how you as an individual can do more to help your fellow man; in particular how you can repay those that have given so much to defend our country and our freedoms that we enjoy on a daily basis. I had the opportunity to participate in one such event.

BY CARRIE SALYERS,
LDWF Wildlife Outreach Coordinator

On the weekend of Feb. 7, 2014, the Louisiana Hunters for Heroes (LHH) hosted a rabbit hunt in honor of wounded veterans. The LHH is a newly formed non-profit organization dedicated to assisting wounded veterans by introducing them to the joys of hunting and the great outdoors. The goal of LHH is to show respect, honor, compassion, and, above all, love for our fellow-man through the fellowship shared on a hunt. Donnie Vocker is the current president of the organization and principal organizer of February's rabbit hunt event.

Ten disabled veterans were invited to participate in the rabbit hunt which took place at Ben Lilly WMA, a newly acquired tract of land owned by LDWF. The weekend's activities began Friday with dinner and reception which included LDWF Secretary Robert Barham welcoming the group, followed by LDWF biologist Zac Bounds giving a presentation on gun safety. LDWF Enforcement agent Scott Bullitt presented the 10 vets with Wildlife and Fisheries commemorative coins and state hunting licenses, both donated by the LA Wildlife Agents Association. All expenses for this event were covered by sponsors including the Louisiana Department of Wildlife and Fisheries, the Louisiana Wildlife Agents Association, Louisiana Office of State Parks, and the Louisiana Dutch Oven Society.

On Saturday morning, we awoke to a scene not normally associated with Louisiana...a blanket of thin ice over the trees and fields. Despite the lower than normal temperatures, spirits were high, and everyone was eager to get started. Each hero was paired with a volunteer guide, and several beagles were provided to aid in the hunting effort. One rabbit was harvested before all returned to a grand feast hosted by The Dutch Oven Society, which included 12 different types of chili and jambalaya. Approximately 135 people attended the luncheon; a great way to show these heroes how this community appreciates their service.

The beagles were turned loose again Saturday afternoon, and a total of eight rabbits were harvested. The event continued with a fish fry on Saturday evening and ended with breakfast Sunday morning. It's remarkable how this two-day event created memories and friendships that will last a lifetime... and an opportunity to be reminded to thank those that have defended what we are so thankful for, our freedom.

For more information on the Louisiana Hunters for Heroes, please visit their website at: <http://lahuntersforheroes.wordpress.com/>



Archery in Louisiana Schools

BY ROBERT STROEDE,
LDWF Biologist & Shooting Sports Coordinator

In the fall of 2001 the Kentucky Board of Education, Kentucky Department of Fish and Wildlife Resources, and Mathews Archery came together and began working on what many thought was an impossible task, to introduce archery into public and private schools. In 2002, the Kentucky Archery in the Schools Program was launched in 21 Kentucky middle schools. The hope was to have the program spread to 120 schools within three years. Little did they know that they would achieve that goal not in three years, but rather within that first year, while changing the face of archery for many years to come.

Since that time, the Kentucky Archery in the Schools Program has abandoned its localized title for one with a broader reach, giving rise to the National Archery in the Schools Program (NASP). With 47 states, seven Canadian Provinces, and countries like South Africa, Mongolia, Australia, and New Zealand now participating, NASP seems to have outgrown its namesake once again. In 2013 NASP grew 22 percent, had 2.3 million students participate (more than played Little League Baseball), and broke its own Guinness World Record for the largest archery tournament with 9,426 participants at the NASP National Tournament.

So why has the brainchild of a few dedicated individuals and organizations become one of the largest and fastest growing programs in the world? The simple answer: because it works!

Archery is a great fit for today's schools and students. Not only is archery fun but it is inherently safe. The National Archery in the Schools Program is safer than every ball sport except ping-pong, and since its inception in 2002 there has never been a safety

incident. Archery is a sport of focus and discipline, two traits that have great crossover in any classroom. Ask a teacher if they would like to have students more focused and disciplined in their classroom; you can probably guess their response. Archery builds confidence in students because nearly all can participate and succeed. It has even been shown to improve attendance among those students that participate. Teachers, administrators and parents alike all sing the praises of NASP and what it does for their children.

Louisiana seems to be a perfect fit for NASP. With a deep heritage in the outdoors and a motto like "The Sportsman's Paradise" NASP is right at home. In Louisiana, NASP is coordinated and sponsored by the Louisiana Department of Wildlife and Fisheries and is operated under the title of the Archery in Louisiana Schools Program or

"ALAS." The ALAS program is a proud member of NASP and follows all NASP curriculum and protocol.

The NASP/ALAS program is designed to introduce students in grades 4-12 to international, target-style archery as part of the in-school curriculum. The focus of the program is not on competition, but on participation. The creators behind NASP realized that the best way to increase participation was by creating a program that fit a typical school day, one that meets all state and national education standards, and is both safe and fun. Each student is taught the curriculum by a NASP certified instructor with safety as the ultimate guiding principle. The ALAS program is available to all fourth through 12th grade students in Louisiana including public, private, parochial, charter, and even home-school students.



Arnaudville Elementary receives archery equipment from the Louisiana Department of Wildlife and Fisheries through the 2013/2014 LDWF/ALAS equipment grant program.

Although the program has been available to schools in Louisiana since 2005, it was not until recently that a wave of interest in the program developed. Until recently it has been a “grass roots” movement, but the winds of change have begun to blow, and there is hardly a day that goes by that a request for information about the program isn’t received. Word-of-mouth, local media and sponsor support, along with an increased investment by LDWF has helped promote the spread of ALAS across the state.

In 2014 LDWF made an important investment in the program, providing 20 equipment grants to schools seeking to participate in the program. These grants provided schools with half of the equipment essential to teaching the program. Each grant recipient school received five NASP archery targets, the required archery backstop curtain, 10 ground quivers, and a bow rack. Schools were then responsible for purchasing the 12 Genesis bows and two boxes of Easton arrows to complete their set. The grants help many schools that are faced with tight budgets to provide their students with all the benefits of the ALAS program.

In addition to funding these grants, LDWF along with several sponsors hosts the ALAS State Tournament in March of each year. Students from across the state who receive the NASP/ALAS curriculum are eligible to compete. This year’s ALAS State Tournament had 714 registered shooters from 31 different schools. Student archers competed for awards and prizes including plaques, trophies and archery gear. In addition, the top male and female shooters received \$1,250 scholarships provided by the Central Louisiana Chapter of the Quality Deer Management Association.

The ALAS State Tournament allows schools and individuals to qualify to compete at the NASP National Tournament held in Louisville, Ky. in May of each year. At the national tournament this year, NASP and its sponsors provided \$77,000 in scholarships to student archers. This year’s national tournament set a world record with nearly 11,000 archers competing, with 115 of those coming from Louisiana. A total of five teams from Louisiana competed in this year’s national tournament, with one Louisiana team in the elementary division, Benton Elementary, finishing eighth in the nation. This was a great testament to the talent and dedication of our ALAS students.

Although competition is not the focus of the program, local, regional, state and



LEFT: Kendall Orms, the top female shooter at the 2014 ALAS State Tournament, receives her awards (including a \$1,250 scholarship from Central Louisiana Quality Deer Management Association) in a special presentation at the headquarters of the Louisiana Department of Wildlife and Fisheries.

national tournaments allow students the opportunity to showcase and hone their skills. Archers are able to compete both as individuals and members of a team. This often leads to camaraderie and school spirit among students that come from a wide variety of backgrounds. The NASP/ALAS program is unique in its ability to include nearly every student that has an interest. As long as a student can physically draw the bow they can participate. Since the NASP/ALAS bow can be adjusted to fit nearly everyone, few if any, are ever left out.

Currently, around 100 schools in Louisiana have the ALAS program as part of their curriculum. Although this is a great start, over 90 percent of Louisiana schools have yet to experienced the benefits of this program. The good news is there is no time like the present to get involved.

LDWF provides training to those interested in becoming certified NASP Basic Archery Instructors (BAI) at no cost; currently

there are over 400 trained NASP BAIs across the state. Although ALAS is most commonly taught as part of the physical education curriculum, training is not restricted to PE teachers. Each eight-hour training session provides attendees with the knowledge and skills necessary to provide students with an archery experience. In other words, no prior archery experience necessary. Many of those trained to become NASP BAIs have never handled or used archery equipment. NASP BAI training is held statewide, with locations, dates and times listed on the LDWF website and ALAS Facebook page.

If you are interested in finding out more about ALAS or getting involved contact Robert Stroede or go to:

Phone: (318)484-2276

Email: rstroede@wlf.la.gov

Website: www.wlf.la.gov – Search ALAS

Facebook: ALAS-Archery in Louisiana Schools

Twitter: @ARCHERYLAS

Conservation Partnership

Why it Matters: Wildlife Need Large Landscapes; It Takes a Lot of People to Manage Ecosystems

BY GREGG ELLIOTT, GCPO LCC Communications and Outreach Specialist (K. Gregg Consulting - Memphis, TN)
BEAU GREGORY, LDWF Zoologist

Editor's Note: *The following is the second in a series of articles that will address efforts to enhance conservation on a large-scale, commonly referred to as "landscape level conservation."*

The high tech community likes to talk about the "business ecosystem," but they can't hold a candle to the real thing - the kind made of blood, rock, sinew and chlorophyll - where people and organizations work in symbiotic partnerships playing important roles in the living systems of which we are all a part.

BRINGING BACK THE LOUISIANA PEARLSHELL

The Louisiana pearlshell mussel is an unassuming organism that can grow to the size of a grown man's palm and is found nowhere else on earth except for Louisiana's Grant and Rapides parishes. "That's it in the world," says Beau Gregory, a zoologist with the Louisiana Natural Heritage program who since 2006 has been surveying for the listed pearlshell and talking to landowners about their stream habitat.

"The mussel can be a source of local pride, but it's also an indicator of water quality. We don't know a lot about them,

but sedimentation is definitely a factor hurting these mussels." Gregory says when landowners first learn that they have a federally threatened and state endangered organism on their property, "People do react a lot with fear. I have to dispel the myth that the government's going to take [their] land. When animals become listed, our goal is to get them off the list by neutralizing the threats to their existence."

In fact, landowners are offered the opportunity to participate in various voluntary programs that can provide resources to improve or protect mussel habitat. Decline of

this species probably occurred in the early part of the 20th century, when much of the piney woods and associated creek bottoms were cleared. Improving habitat today focuses on proper management of the streamside forest, benefitting many aquatic species, not just the pearlshell.

"For those with good habitat, we might offer to enroll their land in the Natural Areas Registry [<http://www.wlf.louisiana.gov/wildlife/natural-areas-registry-program>], where the landowner gets recognition for their beautiful property and also receives expert advice on habitat management. We



Louisiana Pearlshell Mussel

might also try to link them into USDA farm bill programs for conservation easements or cost-sharing to restore degraded habitat."

For a species with such limited range, the best means of removing it from the endangered species list is to reintroduce it back into suitable habitats. With mussels, this is not as straightforward as it sounds. Reintroduction is dependent upon both identifying potential suitable habitat and a more complete understanding of its life history.

THE STRANGE SEX LIFE OF A FRESHWATER MUSSEL

Most species of mussel have one or two specific host fish that are necessary to complete their life cycle. After fertilization, pearlshell mussel eggs develop into microscopic larvae (called glochidia). Mussels have developed various stratagems, some quite elaborate, to ensure the larvae find their way into the gills or sometimes the fins of their host fish. The larvae are parasitic but rarely damaging to the fish.

If the host fish species is known, one of the simplest ways of reintroducing mussels to their habitats could be a program of "infest and release." In the case of the Louisiana pearlshell, however, the host fish is still a mystery.

This is where fisheries science comes in. Tony Brady is a fisheries biologist with

the U.S. Fish & Wildlife Service (USFWS) Natchitoches Fish Hatchery (<http://www.fws.gov/natchitoches/>) who has been conducting surveys and experiments designed to identify the pearlshell's host fish. Brady has been systematically collecting species of small fish - such as brown madtom and black spotted top minnow - that live in the same streams as the pearlshell. He then tries to get the mussel glochidia to develop on the fish's gills in the lab.

An exciting clue, not yet confirmed by Brady, is the suspicion that pearlshell glochidia are released directly into the water column, looking very much like purplish worms and presumably appetizing to some fish. In addition, it appears that gravid females release their larvae in March, when a common minnow species is migrating.

"Once we know which species is the host, it will be huge for recovery of the species," says Gregory. The next step will be deciding where to reintroduce the mussels.

THE PEARLSHELL HABITAT MODEL

Surveys indicate that pearlshells only occur in very small creeks, barely 1 to 2 inches deep in spots and fed by headwaters springs. They also tend to be found in riffles. All of these qualities, it turns out, can be predicted using various sets of data that correlate with these habitats.

Brady enlisted the aid of John Tirpak, Science Coordinator for the Gulf Coastal

Plains & Ozarks Landscape Conservation Cooperative (gcpolcc.org), to develop a GIS-based model of prime pearlshell real estate (<http://tinyurl.com/bsbujtm>). By conducting successive analyses that identified streams with the correct flow, substrate, slope and canopy cover (a proxy for temperature), the pearlshell habitat model converged on high quality pearlshell streams. The model correctly predicts the current distribution of the mussels, but more to the point, it also indicates appropriate stream runs where new populations of pearlshell could feasibly take hold.

The combination of known potential habitat and a definitive identification of the pearlshell's host fish will allow the Louisiana Department of Wildlife and Fisheries and USFWS to start discussions with the Forest Service on some appropriate areas to begin reintroductions. If initial tests are successful, the habitat model may help to focus both reintroduction efforts and outreach by land trusts to protect habitats. It's even possible this humble mussel may rebound to a point where delisting is possible.

When that happens, people might someday barbecue them on the grill, as one landowner told Gregory his grandmother did when he was a child. "But," Gregory muses, "he said they were kind of gritty." Perhaps that is just as well for the Louisiana pearlshell!



Beau Gregory using a glass bottom bucket to survey for pearlshell mussels.

Young Brandon and David Stafford following a successful gray squirrel hunt.

Want More Squirrels?

BY JIMMY STAFFORD,
LDWF Wild Turkey & Resident Small Game Program Manager

When it comes to squirrels, E. T. Seton said it best in his 1929 book The Lives of Game Animals: "It supplies to the city man, the farm boy, and the sportsman the most alluring motive for a glorious tramp in the woods, with a sufficiency of material reward, an amplitude of present joy, and a heritage of delightful memories."

Squirrels are the one wildlife species that virtually every person has encountered. Whether squirrels are our morning entertainment at the bird feeder outside our kitchen window or our earliest hunting trip memory, we all have an association with this furry creature. For me it is sitting on my grandmother's back steps skinning squirrels knowing that two hours later the tastiest morsels dripping with brown gravy would be spooned from a pot on her stove onto my plate. I fear that many in this generation will never know such pleasure.

Louisiana has two species of squirrels, gray squirrels (*Sciurus carolinensis*) and fox squirrels (*Sciurus niger*). Gray squirrels, sometimes called "cat squirrels" due to the latter half of their "bark" sounding similar to a cat's meow, are most common throughout the state.

There are two subspecies of gray squirrels. *Sciurus carolinensis carolinensis* is most common south of Alexandria while *Sciurus carolinensis fuliginosus* is most common in the northwest quarter of the state. An intergradation zone of both subspecies occurs between the two areas.

There are three subspecies of fox squirrels in Louisiana. East of the Mississippi River in what is known as the Florida Parishes,

the Bachman fox squirrel (*Sciurus niger bachmani*) can be found. The Bachman fox squirrel is also known as the white-faced or blazed-face fox squirrel and is arguably the most handsome of the three subspecies. Found in the Mississippi and Atchafalaya River floodplain is the Delta fox squirrel (*Sciurus niger subauratus*). The Delta fox squirrel is the smallest of the three subspecies, and a black color phase is common in this subspecies. Former LDWF squirrel expert J. B. Kidd once trapped 36 Delta fox squirrels in lower Catahoula Parish, and all were in the black color phase. Lastly, but surely not least, is the Chucklehead fox squirrel (*Sciurus niger ludovicianus*). The Chucklehead is known for its large head and body size and is found throughout the western half of the state.

Each squirrel species has slightly different habitat preferences, but both species (fox and gray) may be found in the same habitats. Generally, fox squirrels tend to spend more time feeding on the ground and may travel great distances each day to forage for food. For the Chucklehead and Bachman squirrels, open and regularly burned pine forests interspersed with hardwood areas are preferred. Vegetation that is too dense can render habitats unusable for these subspecies. The Delta and gray

squirrels usually prefer mature hardwood forests with well-developed mid-story vegetation of trees and vines.

A friend once told me that "when it comes to squirrels, you either have them or you don't, and there is not much you can do to change that." Squirrels need a forest with mast producing (nuts or fruit) trees in order to grow, reproduce and thrive. My friend was suggesting that you either have quality squirrel habitat or you don't, and that it would be a futile attempt to create it because of the time it takes to grow a mature forest with an abundance

of mast-producing trees. However, sound forest management and patience can create squirrel habitat - just not as soon as my friend would have liked. Wildlife managers are not just looking at conditions today, but at what the future can bring with proper habitat management.

Wildlife managers are keenly aware that all forests constantly change over time. We call this change "forest succession." This sometimes slow, but ongoing process alters plant composition and structure over time. Different species of wildlife live and thrive at different stages of forest succession. Squirrels tend to be most abundant in the latter stages of forest succession. Such a forest will usually have mature or mid-age hardwoods with plenty of den trees. Den trees are those trees with hollow limbs or trunks that offer squirrels escape and nesting cover. Hollow den trees are beneficial to squirrels for winter shelter and rearing of young. Younger hardwood forests (aged less than 35 years) are often lacking usable den trees. Squirrels can and regularly do make leaf nests but studies have indicated that survival of litters is usually about two and one-half times higher in den trees as compared to leaf nests. As a general rule of thumb, there should be at least two to six quality den trees for each acre of squirrel habitat. Leaving quality den trees during forest management operations will benefit squirrels. It is standard procedure for LDWF foresters to leave den trees when marking hardwood timber for harvest on wildlife management areas.



LEFT: A "Bachman" fox squirrel from Tangipahoa Parish.
RIGHT: A "Chucklehead" from Vernon Parish bagged by Brandon Stafford.

Another consideration is species composition of the forest. An important consideration for improving squirrel habitat involves providing a diversity of year-round food sources. Squirrels prefer mast from trees such as American beech, oaks and hickories. Mast from these trees is high in the carbohydrates that are required by squirrels in the fall and winter. These nuts are also great for long term storage since they are encased in a hard protective shell. Squirrels will hide such foods in tree hollows, leaf caches and even in the ground for later use. During other times of the year squirrels will feed on fruits, berries, seeds, flowers, pine buds, pine seeds, fungi, and insects. Therefore, good squirrel habitat must have a diverse mixture of plants to meet the year-round needs of squirrels. Squirrels will

also consume bones, deer antlers and turtle shells for calcium and other minerals.

The manner in which a forest is managed has a direct effect upon squirrels. To ensure that ample food sources are maintained, timber stands should be composed of a mixture of hardwoods or mixed pine-hardwood species. Timber stands should be managed to provide and maintain diversity of structure and diversity of seed and fruit producing species. Timber harvesting should promote the availability of diverse food resources throughout the year which should include hard mast producing species.

"When it comes to squirrels, you either have them or you don't and there is not much you can do to change that." As a wildlife manager I would have to disagree with my friend's statement. Only 24 years

ago I planted a field with hardwood trees, and I now have squirrels where none were before. I have thinned stands of pine trees and conducted prescribed burning. Now fox squirrels exist where they once were absent. I intentionally leave an ample number of mature beech, hickories and oak trees when conducting timber harvests and have never been without squirrels since grandma and I skinned squirrels from this very same forest. With planning and proper timber management you can have squirrels where habitat once was lacking.

For more information about squirrels contact an LDWF technical service biologist nearest you or contact Jimmy Stafford at jstafford@wlf.la.gov.



LOUISIANA WILDLIFE LICENSE PLATES

Your purchase of a wildlife license plate helps fund wildlife management and research

Any citizen of Louisiana can purchase a wildlife license plate when registering their vehicle, or if you have already registered your vehicle and would like to order a wildlife license plate go online to: <https://expresslane.dps.louisiana.gov/SpecialPlatesPublic/SpecialPlates1.aspx>

Conservation Programs Important to Louisiana

Overview of the Agricultural Act of 2014 (Farm Bill)

BY CODY CEDOTAL, Farm Bill/Grants Coordinator

For almost three decades the Farm Bill with its various titles has provided financial assistance to farmers and landowners across the nation. The conservation provisions of the Farm Bill have significant impacts on wildlife, and those impacts are felt by hunters and outdoors enthusiasts, even if they are not farmers or landowners. In February, the Agricultural Act of 2014 was passed by Congress and signed by the President. There are many programs within the bill that affect Louisiana both directly and indirectly, including the conservation, crop insurance, forestry, energy, and commodity programs. Through these programs, funds are channeled to various agencies to be distributed across the landscape in many different forms, including programs for soil, water and wildlife conservation.

Conservation programs active in Louisiana include, but are not limited to, the Conservation Reserve Program, Environmental Quality Incentives Program, Agricultural Conservation Easement Program, Working Lands for Wildlife Program, and the Conservation Stewardship Program. Many of these programs have been continued under the 2014 Farm Bill, although some under a new name. The final legislation includes a \$6 billion reduction of conservation title funding through 2018. The number of conservation programs has been reduced from 23 to 13. Although this reduction in funding and consolidation of programs has been realized, there are still many positive aspects in the 2014 Farm Bill with regards to wildlife conservation. The following paragraphs will highlight some of the most significant programs that impact wildlife conservation in Louisiana.

CONSERVATION RESERVE PROGRAM

Few conservation programs have influenced wildlife habitat across the nation as much as the Conservation Reserve Program (CRP). CRP provides participants soil rental payments each year to maintain erodible cropland in various types of vegetated cover to reduce soil erosion and improve wildlife habitat. At its peak there were approximately 32 million acres enrolled in CRP nationwide. Currently, there are approximately 26 million acres enrolled in the program nationwide, with 300,000 in Louisiana. CRP currently provides grassland habitat for numerous wildlife species including nesting waterfowl, pheasant, quail and sage grouse throughout the Midwest and prairie-pothole states. Louisiana waterfowl hunters



Gopher tortoise habitat protection and restoration projects are included in the Working Lands for Wildlife Program.



Properties enrolled in CRP or WRE are often reforested to bottomland hardwood and other habitats that benefit wildlife. In this photo, the open area in the center is a shallow water area that is flooded during the winter months to provide habitat for waterfowl and wading birds, while the area to the right has been reforested to bottomland hardwood tree species.



Prescribed burning is one of the many conservation practices that can be used under EQIP to enhance wildlife habitat.

have directly benefited from the waterfowl nesting habitat created by CRP in the prairies of the United States. In the southeastern United States (including Louisiana), most CRP tracts have been reforested to loblolly pine, longleaf pine or bottomland hardwood as a means of soil conservation and wildlife habitat enhancement.

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM

For many years the Environmental Quality Incentives Program (EQIP) has provided cost-share assistance to farmers, ranchers and forest landowners to encourage them to apply a variety of conservation practices. Under this program, the targeted conservation practices enhance wildlife habitat, improve water quality, improve soil health, and provide for increased production of crops and livestock while conserving soil, water and wildlife. Eligible forest landowners can obtain financial assistance for practices such as prescribed burning, site preparation, and tree and shrub establishment. Eligible farmers and ranchers can receive assistance for practices such as irrigation water management, energy improvement, cover crops, and pasture improvements. These are just a few examples of ways in which EQIP can assist landowners with resource conservation. For these reasons, EQIP has become known as the “working lands” program.

AGRICULTURAL CONSERVATION EASEMENT PROGRAM

At first glance, the Agriculture Conservation Program (ACEP) may appear brand new to many. However, in the 2014 Farm Bill it represents a consolidation of many easement programs authorized under prior Farm Bills. Under ACEP, there are two types of easements a landowner may be eligible for, an Agricultural Land Easement (ALE) and a Wetland Reserve Easement (WRE). Easements are meant to retire or restrict parcels of land for extended periods of time (30 years), or permanently, as a benefit to the conservation of soil, water and wildlife. ALEs target working farms and ranches and provide a payment to landowners to restrict future development on the property. WREs target wetland tracts for retirement from farming, ranching or other uses and provide payments to landowners for such. Hydrological and vegetative restoration is also a priority with a Wetland Reserve Easement. This name is probably recognized by some as being similar to the Wetland Reserve Program (WRP) that has been around and successful for many years in Louisiana. There is good reason for this, because the programs are essentially the same.

This short article does not cover all of the programs in the Conservation Title of the 2014 Farm Bill and only provides an overview of some important programs that Louisiana landowners and managers may be able to take advantage of to help conserve soil, wildlife and their habitats.

For more information regarding programs that help landowners improve wildlife habitat, contact one of the department's Private Lands Program biologists or Cody Cedotal, Farm Bill/Grants Coordinator at (225) 765-2354 or ccedotal@wlf.la.gov or Keri Landry (for information on Gopher Turtles) 225-765-2809 or klandry@wlf.la.gov.

Easements are meant to retire or restrict parcels of land for extended periods of time (30 years), or permanently, as a benefit to the conservation of soil, water, and wildlife.



INSTRUCTOR SPOTLIGHT



Kim Cedars

Kim Cedars has been teaching Hunter Education as a volunteer since 2004. In addition to being an active volunteer Hunter Education Instructor, she is a fixture at many LDWF Education Program events. Kim volunteers to help at Becoming an Outdoors Woman events, FUN Camp, Archery in Louisiana Schools, Youth Hunter Education Challenge and the Terrebonne Aquatic Clinic.

When asked why she volunteers, Kim offered, “Being in the outdoors is a passion of mine. There are no words to describe the feeling I get when I teach someone to shoot a bow or bust a clay with a shotgun. People always ask me why I do all this for free. The truth is, I can’t give an answer that they would truly understand. It comes from the heart, and when I see the results, it is priceless.”

Kim is an outstanding volunteer and is a tremendous help to the LDWF Education Program. Fortunately, there are others just like Kim, who unselfishly give of their time and share their knowledge and passion for the outdoors with others. If you would like to become a volunteer in the LDWF Hunter Education or Aquatic Education Programs, please contact Fred Kimmel at 225-765-2355 or fkimmel@wlf.la.gov.



Tony Vidrine
MAV Biologist Manager

Being in the outdoors has always been a way of life for Tony; involvement in scouting as a youth, camping, hiking, fishing and hunting were almost a daily routine. Tony went on to attain the rank of Eagle Scout while in scouting, a testament to his dedication and interest in the outdoors and wildlife. From a young age, Tony has always strived to work hard and to be the best that he could be.

In 1983, Tony earned a degree in Forestry from LSU. While at LSU, Tony took many courses in wildlife management that served to further increase his interest in wildlife. Tony began his LDWF career as a Wildlife Specialist (Technician) on Bohemia and Biloxi Marsh WMA's, where he continued to learn and apply the lessons from his time at LSU.

Deer management has always been one of Tony's primary interests. He enjoys learning about advances in deer management and then applying them to his work on WMAs. One of the ways that Tony keeps current with the newest deer management strategies is by attending Southeast Deer Study Group meetings, of which he has been to over 20 since his career began.

Tony says that one of the most enjoyable aspects of working in the Wildlife Division is the diversity of the work. He has had the opportunity to work on many different projects, including black bear reintroductions, turkey trapping, waterfowl banding, managing youth hunts, as well as small and non-game research and management projects. Managing the WMA system for public use is another challenge that Tony enjoys very much. Never turning down a challenge and trying to figure out how a project can be accomplished instead

of why it cannot be is a motto Tony has lived by for many years. Tony strives to make each WMA in his region a place where sound wildlife management is practiced and users can appreciate the tranquility of the environment.

Tony's varied experiences during his 30-year career has prepared him for his present position as WMA Biologist Manager for the Mississippi Alluvial Valley – South Eco-region. Tony currently oversees 11 WMAs, directly supervising two Biologist Supervisors and one Administrative Assistant, along with indirect supervision of one WMA Biologist and 14 WMA Technicians.

One of the reasons that LDWF WMAs are so popular with the public is because of managers like Tony Vidrine. Not only is he directly involved in WMA management, but he is also engaged in training the next generation of biologists, thus ensuring the continued success and proper management of LDWF WMAs. Thanks to Tony's hard work we can trust that WMAs will continue to be premier wildlife recreational areas for public enjoyment, now and into the future.

WILDLIFE MANAGEMENT CALENDAR OF EVENTS

	JANUARY	FEBRUARY	MARCH	APRIL	MAY
GENERAL	Dormant season prescribe burn.** Invasive plant control. Take soil samples for food plot preparation.		Growing season prescribe burn, invasive plant control, soil tests, prune and fertilize fruit/mast trees.	Apply herbicide to longleaf stands if necessary, growing season prescribe burn, invasive plant control, fertilize native vegetation.	Plant warm-season food plots*, perform maintenance of fire breaks, growing season prescribe burn, invasive plant control.
DOVES					
DEER	Collect harvest data.	Post-season camera survey before antlers are cast.** Turn in DMAP records to LDWF.		Browse survey. Work on summer food plots. Fertilize natural deer browse.	
DUCKS/ MOIST-SOIL UNITS		Install new wood duck boxes and clean out existing boxes. Early draw down for moist soil units.	Begin slowly drawing down moist soil units monitor wood duck nest boxes.	Moist-soil plant management/disturbance.	
HOGS	Trap hogs****		Trap hogs		
QUAIL	Prescribe burn/fallow disk.			As needed prescribe burn woody brush areas/avoid mowing-burning all potential nesting areas (2 yr. old native grass areas).	
RABBITS	As needed prescribe burn/disk/mow transition zones.			Escape cover can be created any time during the year as needed.	
SONGBIRDS		Install new bird houses and clean out existing boxes.	Regularly clean bird feeders to reduce disease transfer, prevent nonnative, invasive birds from utilizing bird houses.		
SQUIRRELS					
TURKEY	Prescribe burn/fallow disk/mow for poult habitat.		Listen to gobbling activity prior to hunting season fallow disk/mow for poult habitat growing season burning.	Plant chufa. Growing season burning as needed to improve thick woody brush areas - avoid mowing potential nesting areas.	
WOODCOCK	Future diurnal habitat can be created any time during the year as needed using clearcuts, shelterwood, group selection.				

*always remember that planting food plots is secondary to natural habitat management; food plots benefit several species including deer, turkeys, quail, and non-game species.
**prescribed burning is beneficial to several species including turkey and quail by providing more open habitat for easy movement through the landscape, grasses and forbs for nesting, food,
***pre-season camera survey more informative/important than post-season camera survey by visualizing buck:doe and doe:fawn ratios and aiding in harvest decisions.
****increase hog trapping effort prior to increases in food availability



Cassidy Lejeune

Coastal Operations Program Manager

Cassidy Lejeune is a 33 year old native of Abbeville, La. In 2002 Cassidy earned a Bachelor of Science degree from the University of Louisiana at Lafayette in Environmental and Sustainable Resources with a minor in Biology. After graduating college, Cassidy began a job as a biologist within the Coastal Operations Section of the Coastal and Nongame Resources Division of LDWF. Cassidy assisted with the management of multiple coastal refuges and the Atchafalaya Delta Wildlife Management Area where he served as a field supervisor and a point of contact for biological activities on these properties.

After working with the department for one year, Cassidy enrolled as a part time graduate student at LSU's School of the Coast and the Environment. From 2004 to 2007 Cassidy juggled his career, graduate school, and family responsibilities and graduated from LSU with honors in December 2007. Cassidy earned a Master of Science in Environmental Science with a concentration in Wetlands Science and Management. Overall, Cassidy is proud of his educational accomplishments which have enabled him to better assist with coastal marsh management activities. However, Cassidy said it was unquestionably "a challenge" to meet so many requirements.

As a Biologist Program Manager, Cassidy is involved with the management of four coastal refuges and seven wildlife management areas. His program is comprised of 28 employees that are spread across the south-central and southeastern portions of Louisiana. Activities within his program include coastal restoration, marsh management, data collection and research, minerals management, public use improvements

and events such as managed hunts, coordination of fur and alligator trapping, development of rules and regulations, and other miscellaneous activities to which a program manager must attend. Cassidy is also the manager of two employees that participate in statewide oil spill response and natural resource damage assessment activities associated with wildlife resources and their habitats.

When asked what he likes best in his current position, Cassidy said that he enjoys the diversity of the job and being able to work with very talented and qualified employees. "We do a little bit of everything in our section and it is very rewarding to work with motivated employees that are always up to a challenge." When asked about the most memorable times over the past 10 years, Cassidy stated that he did not have any one particular event, activity or project that was his favorite. However, he did say that he fondly remembers many days being out in the field conducting surveys, monitoring restoration projects, and banding birds when he often thought "this is awesome - I would do this as a volunteer." Cassidy feels that working on the coast, particularly the restoration of it, is very rewarding and gives him a sense of accomplishment. Cassidy feels his endeavors are "positive and benefit the effort to conserve Louisiana's precious natural resources."

JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Growing season prescribe burn. Invasive plant control.		Invasive plant control. Bushhog/mow roads, fields.	Mast survey. Plant cool-season food plots.* Invasive plant control.	Invasive plant control.		Dormant season prescribe burn.** Invasive plant control.
Plant brown-top millet for first season dove fields.		Manipulate dove fields for hunting plant brown-top millet for second season dove fields.				
Provide mineral supplements.		Apply for DMAP.	Pre-season camera survey.*** Begin deer stand repairs and prep for hunting season	Pre-season camera survey.***	Collect harvest data.	
Moist-soil plant management/disturbance.		Begin partial flooding for teal, begin duck blind repairs and prep for hunting season.	Manipulate moist soil if needed; mow, disc, burn, plow, herbicide.	Start main flooding of moist soil units.		
		Trap hogs****		Trap hogs		
				Fallow disk borders 50 - 100' wide around fall deer plots to improve summer quail nesting-feeding habitat.		
Escape cover can be created any time during the year as needed.				Disk near cover to improve feeding habitat.		
Regularly clean bird feeders to reduce disease transfer, prevent nonnative, invasive birds from utilizing bird houses.					Install new bird houses and clean out existing boxes.	
			Take a youth hunting during spe- cial WMA youth squirrel hunts.	Install squirrel nest boxes.		
Plant chufa.				Plant clover for spring plots.		
Future diurnal habitat can be created any time durin the year as needed using clearcuts, shelterwood, group selection.				Bushhog to a height of 12-18 inches and/or burn openings managed for nocturnal habitat.		

and summer bedding cover for deer, etc.

LDWF WILDLIFE DIVISION STAFF

Office of Wildlife
P.O. Box 98000 Baton Rouge, LA 70898
225-765-2346 225-765-2350

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES ADMINISTRATION

	Robert Barham <i>LDWF Secretary</i>		Jimmy Anthony <i>LDWF Assistant Secretary</i>		Bryan McClinton <i>LDWF Undersecretary</i>		Brandon Burris <i>Executive Management Officer</i>		Wendy Brogdon <i>Admin. Program Specialist</i> wbrogdon@wlf.la.gov
--	---	---	---	---	--	--	--	---	---

BATON ROUGE ADMINISTRATIVE STAFF

	Kenneth Ribbeck <i>Chief of Wildlife</i> kribbeck@wlf.la.gov		Robert Gosnell <i>Director, Education & Private Lands</i> rgosnell@wlf.la.gov		Tommy Tuma <i>Director, Habitat Stewardship</i> ttuma@wlf.la.gov		Linda Allen <i>Admin. Program Specialist</i> lallen@wlf.la.gov		Judith Heintze <i>Admin. Program Specialist</i> jheintze@wlf.la.gov
--	---	---	--	---	---	--	---	---	--

DEER PROGRAM

	Scott Durham <i>Program Leader</i> 225-765-2351 sdurham@wlf.la.gov
	Jonathan Bordelon <i>DMAP Coordinator</i> 225-765-2344 jbordelon@wlf.la.gov
	James LaCour, DVM <i>Wildlife Veterinarian</i> 225-765-0823 jlacour@wlf.la.gov
	Rusty Berry, DVM <i>Wildlife Veterinarian</i> 318-487-5885 rberry@wlf.la.gov

DOVE, WOODCOCK & RESEARCH PROGRAM

	Jeff Duguay <i>Program Leader</i> 225-765-2353 jduguay@wlf.la.gov
--	---

EDUCATION PROGRAM

	Fred Kimmel <i>Program Manager</i> fkimmel@wlf.la.gov
	Wayne Higginbotham <i>Education Manager</i> 225-763-5788 whigginbotham@wlf.la.gov

LA HUNTING HERITAGE PROGRAM

	John Sturgis <i>Program Leader</i> 337-948-0255 jsturgis@wlf.la.gov
--	---

WILDLIFE OUTREACH & EDUCATION

	Carrie Salyers <i>Wildlife Outreach Coordinator</i> 337-262-2080 csalyers@wlf.la.gov
--	--

LARGE CARNIVORE PROGRAM

	Maria Davidson <i>Program Leader</i> 337-948-0255 mdavidson@wlf.la.gov
	Sean Murphy <i>Biologist</i> 337-948-0255 smurphy@wlf.la.gov

SAFE HARBOR PROGRAM

	Eric Baka <i>Coordinator</i> 318-487-5887 ebaka@wlf.la.gov
	Forest Burks <i>Biologist</i> 318-371-3050 fburks@wlf.la.gov

SMALL GAME & TURKEY PROGRAM

	Jimmy Stafford <i>Program Leader</i> 985-543-4778 jstafford@wlf.la.gov
---	--

TECHNICAL SERVICES/ FARM BILL PROGRAM

	Cody Cedotal <i>Farm Bill/Grants Coordinator</i> 225-765-2354 ccedotal@wlf.la.gov
---	---

WATERFOWL PROGRAM

	Larry Reynolds <i>Program Leader</i> 225-765-0456 lreynolds@wlf.la.gov
	Paul Link <i>N. American Coordinator</i> 225-765-2358 plink@wlf.la.gov
	Jason Olszak <i>MAV Biologist</i> 337-948-0255 jolszak@wlf.la.gov

WMA FORESTRY PROGRAM

	Duck Locascio <i>Program Manager</i> 225-765-2347 dlocascio@wlf.la.gov
	Fred Hagaman <i>Biologist Manager</i> 318-487-5887 fhagaman@wlf.la.gov
	Mitch McGee <i>MAV Biologist Supervisor</i> 318-343-4044 mmcgee@wlf.la.gov
	Ed Trahan <i>GCP Biologist Supervisor</i> 318-339-6861 etrahan@wlf.la.gov
	Buddy Dupuy <i>Biologist Forester</i> 318-487-5895 mdupuy@wlf.la.gov
	Philip Pritchett <i>Biologist Forester</i> 318-343-4044 ppritchett@wlf.la.gov
	John Avis <i>Biologist Forester</i> 318-343-4044 javis@wlf.la.gov
	Wade Tracy <i>Biologist Forester</i> 318-487-5885 wtracy@wlf.la.gov

GEOGRAPHIC INFORMATION SYSTEMS

	Brad Mooney <i>GIS Lab Supervisor</i> 225-765-2404 bmooney@wlf.la.gov
	Scott Armand <i>GIS Specialist</i> 225-765-2533 sarmand@wlf.la.gov

WILDLIFE PERMITS OFFICE

	Melissa Collins <i>Permits Coordinator</i> 225-763-8584 mcollins@wlf.la.gov
---	---

WILDLIFE MANAGEMENT AREA BIOLOGISTS



Steve Smith
WMA Program Manager
225-765-2359
ssmith@wlf.la.gov

MONROE

(Miss. Alluvial Valley [MAV])



Jerald Owens
MAV Biologist Manager
318-343-4044
jowens@wlf.la.gov



Charlie Booth
MAV Biologist
318-343-4044
cbooth@wlf.la.gov



Lowrey Moak
MAV Biologist
318-766-8146
lmoak@wlf.la.gov



Corey May
MAV Biologist
318-766-8146
cmay@wlf.la.gov

PINEVILLE (GCP & MAV)



Cliff Dailey
MAV Biologist
318-487-5637
adailey@wlf.la.gov

LAKE CHARLES (Gulf Coastal Plain [GCP])



Wendell Smith
GCP Biologist
337-491-2599
wsmith@wlf.la.gov

MINDEN (GCP)



Czerny Newland
GCP Biologist Manager
318-371-3050
cnewland@wlf.la.gov



Jeffrey Johnson
GCP Biologist
318-371-3051
jjohnson@wlf.la.gov



Jarrod Hughes
GCP Biologist
318-371-5211
jhughes@wlf.la.gov



Seth Miller
GCP Biologist
318-371-3050
smiller@wlf.la.gov

OPELOUSAS (MAV)



Tony Vidrine
MAV Biologist Manager
337-948-0255
tvidrine@wlf.la.gov



Brad Launey
MAV Biologist
337-566-2251
blauney@wlf.la.gov



Randy Corlew
MAV Biologist
337-566-2251
rcorlew@wlf.la.gov

HAMMOND (GCP)



Christian Winslow
WMA Biologist Supervisor
985-543-4781
cwinslow@wlf.la.gov



Jillian Day
GCP Biologist
985-543-4782
jday@wlf.la.gov

PRIVATE LANDS BIOLOGISTS



David Breithaupt
Private Lands Program
Manager
dbreithaupt@wlf.la.gov

MONROE

(Miss. Alluvial Valley [MAV])



John Hanks
MAV Biologist Supervisor
318-343-4044
jhanks@wlf.la.gov



Johnny Berry
MAV Biologist
985-543-4782
jberry@wlf.la.gov



Brad Kennon
MAV Biologist
318-343-4044
rkennon@wlf.la.gov

HAMMOND (Gulf Coastal Plain [GCP])



Mike Perot
GCP Biologist Supervisor
985-543-4779
mperot@wlf.la.gov



Jimmy Ernst
GCP Biologist
985-543-4784
jernst@wlf.la.gov



Bradley Breland
GCP Biologist
985-543-4777
bbreland@wlf.la.gov

NEW IBERIA (MAV)



Justin Rabalais
MAV Biologist
337-373-0032
jrabalais@wlf.la.gov

LAKE CHARLES (GCP)



Kori Legleu
GCP Biologist
337-491-2574
klegleu@wlf.la.gov

MINDEN (GCP)



Kate Hasapes
GCP Biologist
318-371-3050
khasapes@wlf.la.gov

OPELOUSAS (MAV)



Travis Dufour
MAV Biologist Supervisor
337-948-0255
tdufour@wlf.la.gov

PINEVILLE (GCP & MAV)



David Hayden
GCP Biologist Supervisor
318-487-5882
dhayden@wlf.la.gov



Ken Moreau
MAV Biologist
318-487-5885
kmoreau@wlf.la.gov



Ben Holten
GCP Biologist
318-487-5885
bholten@wlf.la.gov

WILDLIFE EDUCATORS

BATON ROUGE



Daniel Hurdle
Wildlife Educator
225-765-2920
dhurdle@wlf.la.gov

BOOKER FOWLER



Angela Capello
Wildlife Educator Supervisor
318-748-6999
acapello@wlf.la.gov

BOURG



Mitch Samaha
Wildlife Educator Supervisor
985-594-7142
esamaha@wlf.la.gov



Matti Dantin
Wildlife Educator
985-594-5343
mdantin@wlf.la.gov

BUCKHORN WMA



Karen Crabtree
Wildlife Educator
318-766-8144
kcrabtree@wlf.la.gov

LAFAYETTE



Ben Stultz
Wildlife Educator
337-948-0255
bstultz@wlf.la.gov

LACOMBE



Derrick Brasington
Wildlife Educator
985-882-9159
dbrasington@wlf.la.gov



Bradley Jackson
Wildlife Educator
985-882-9159
bjackson@wlf.la.gov

LAKE CHARLES



Theresa Cross
Wildlife Educator
337-491-2585
tcross@wlf.la.gov

PINEVILLE



Jeff Daughtry
Wildlife Educator
318-487-5885
jdaughtry@wlf.la.gov

MINDEN



Todd Buffington
Wildlife Educator
318-371-3326
tbuffington@wlf.la.gov

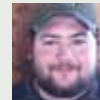


Chad Moore
Wildlife Educator
318-371-3043
cmoore@wlf.la.gov

MONROE

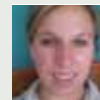


Dana Norsworthy
Wildlife Educator Supervisor
318-345-3912
dnorsworthy@wlf.la.gov



Zachary Bounds
Wildlife Educator
318-343-4044
zbounds@wlf.la.gov

WADDILL OUTDOOR REFUGE



Karla Allen
Wildlife Educator
337-948-0255
kallen@wlf.la.gov

WOODWORTH



Robert Stroede
Wildlife Educator
318-484-2276
rstroede@wlf.la.gov

COASTAL & NONGAME RESOURCES DIVISION STAFF

BATON ROUGE ADMINISTRATIVE STAFF

Office of Wildlife

P.O. Box 98000
Baton Rouge, LA 70898

225-765-2811

225-765-2812



Robert Love
Chief of CNR
blove@wlf.la.gov



Bo Boehringer
Public Information Director
225-765-5115
bboehringer@wlf.la.gov



Buddy Baker
Assistant Chief
bbaker@wlf.la.gov

Programs:

Alligator, Fur & Marsh Mgmt.,
Rockefeller Refuge & White Lake
and CITES



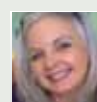
Todd Baker
Assistant Chief
tbaker@wlf.la.gov

Programs:

Coastal Operations, Habitat
Conservation, Mineral
Resources and CWPPRA



Tracy Mancuso
*Admin. Program
Specialist*
tmancuso@wlf.la.gov



Ghia Borel
*Admin. Program
Specialist*
gborel@wlf.la.gov

ALLIGATOR & MARSH MANAGEMENT AND RESEARCH



Edmund Mouton
Program Manager
337-373-0032
emouton@wlf.la.gov



Ruth Elsey
Biologist Manager
337-538-2165
relsey@wlf.la.gov



Jennifer Hogue
Biologist Supervisor
337-373-0032
jhogue@wlf.la.gov



Mike Dupuis
Biologist
225-763-5492
mdupuis@wlf.la.gov



Tonya Sturman
Council Manager
337-373-0032
tsturman@wlf.la.gov



Jeb Linscombe
Biologist Manager
(Rockefeller & White Lake)
337-538-2165
jlinscombe@wlf.la.gov



Ryan King
Biologist
337-491-2593
mking@wlf.la.gov

COASTAL OPERATIONS (State Wildlife, Marsh Island, Isle Dernieres Barrier Islands and St. Tammany refuges. Atchafalaya Delta, Pointe aux Chenes, Lake Boeuf, Salvador, Timken, Biloxi and Pass-a-Loutre WMAs.)



Cassidy Lejeune
Program Manager
337-373-0032
clejeune@wlf.la.gov



Lance Campbell
Biologist Manager
337-373-0032
lcampbell@wlf.la.gov



Jarrod Galloway
Biologist
337-373-0032
jgalloway@wlf.la.gov



Michael Greene
Biologist
337-373-0032
mgreene@wlf.la.gov



Shane Granier
Biologist Manager
504-284-5267
sgranier@wlf.la.gov



David LeBlanc
Biologist Supervisor
337-373-0032
dleblanc@wlf.la.gov



Tyson Crouch
Biologist
337-373-0032
tcrouch@wlf.la.gov



Laura Carver
Biologist
337-373-0032
lcarver@wlf.la.gov

NATURAL HERITAGE PROGRAM



Amity Bass
Program Manager
225-765-2975
abass@wlf.la.gov



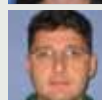
Michael Seymour
Ornithologist
225-763-3554
mseymour@wlf.la.gov



Nicole Lorenz
Biologist Supervisor
225-765-2643
nlorenz@wlf.la.gov



Dan O'Malley
Field Biologist
225-765-2823
domalley@wlf.la.gov



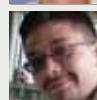
Chris Reid
Botanist
225-765-2820
creid@wlf.la.gov



Beau Gregory
Zoologist
337-491-2576
bgregory@wlf.la.gov



Carolyn Michon
Asst. Data Manager
225-765-2357
cmichon@wlf.la.gov



Charles Battaglia
Field Biologist
318-343-4044
cbattaglia@wlf.la.gov



Keri Landry
Endangered Species Biologist
225-765-2809
klandry@wlf.la.gov



Sam Holcomb
Grants Coordinator
225-765-0239
sholcomb@wlf.la.gov



Sairah Javed
Field Biologist
225-765-2828
sjaved@wlf.la.gov



Neil Douglas
Turtle Biologist
318-343-4044
nhdouglas@att.net



Jeff Boundy
Herpetologist
225-765-2815
jboundy@wlf.la.gov

NATURAL RESOURCE DAMAGE ASSESSMENT (Deepwater Horizon Oil Spill)



Jon Wiebe
Program Manager
337-262-2080
jwiebe@wlf.la.gov



Steven Pearson
Biologist Supervisor
337-262-2080
spearsen@wlf.la.gov



Casey Wright
Biologist
337-262-2080
cwright@wlf.la.gov



Sergio Merino
Biologist
337-262-2080
smerino@wlf.la.gov



Robert Dobbs
Biologist Supervisor
337-262-2080
rdobbs@wlf.la.gov



Martin Floyd
Biologist
337-262-2080
mfloyd@wlf.la.gov



Cody Haynes
Biologist
337-262-2080
jhaynes@wlf.la.gov



Wade Hardy
Biologist
337-262-2080
whardy@wlf.la.gov

WHITE LAKE COASTAL OPERATIONS



Wayne Sweeney
Manager
337-479-1894
wsweeney@wlf.la.gov



Schuyler Darte
Biologist Manager
985-787-2163
sdarte@wlf.la.gov



Justin Gilchrist
Biologist
337-536-9400
jgilchrist@wlf.la.gov

ROCKEFELLER REFUGE COASTAL OPERATIONS



Phillip Trosclair
Program Manager
337-491-2593
ptrosclair@wlf.la.gov



Will Selman
Biologist Supervisor
337-491-2593
wselman@wlf.la.gov



Sarah Zimorski
Biologist
337-536-9400
szimorski@wlf.la.gov

NATURAL HERITAGE PROGRAM



Mike Windham
Biologist Director
504-284-5268
mwindham@wlf.la.gov



Vaughn McDonald
Biologist
504-284-5267
vmcdonald@wlf.la.gov

SCENIC STEAMS, ENVIRONMENTAL INVESTIGATIONS & SEISMIC PROGRAM



Kyle Balkum
Program Manager
225-765-2819
kbalkum@wlf.la.gov



Keith Cascio
Biologist Manager
318-343-4045
kcascio@wlf.la.gov



Matt Weigel
Biologist Manager
337-262-2080
mweigel@wlf.la.gov



Chris Davis
Scenic Rivers & Wetlands Biologist
225-765-2642
rcdavis@wlf.la.gov



Zachary Chain
Biologist
225-765-3587
zchain@wlf.la.gov



Joe Maryman
Biologist
225-765-2380
jmaryman@wlf.la.gov

LDWF Announces Black Bear Information Website



The Louisiana Department of Wildlife and Fisheries is pleased to announce that a new, award-winning online black bear education website is now available to teachers, students and the general public.

This new bear education portal - <http://blackbearinfo.com/> - offers a vibrant assortment of bear education videos, images and text that cover almost every aspect of understanding and living with black bears. Many of the online video clips come from the award-winning film *Living with Black Bears*. This film gained international attention, winning a Silver Telly Award for a wildlife production while also earning Honorable Mention at the prestigious International Wildlife Film Festival.

This new website reflects six years of work by a coalition of wildlife biologists working in states that have bears, partnered with bear education non-profit organizations and wildlife educators. Through much effort, this coalition developed a two-tier bear education program that educates the general population on living with black bears, while also formally educating our next generation of students about black bears.

Students and teachers can access an entire year's worth of black bear education materials for use at home and in the classroom. Although anyone can download the free program and access the student's section, Louisiana teachers will need to register to receive their exclusive access code. The teacher's section of the program contains 29 lesson activities and related classroom support materials. The free access code can be obtained by all Louisiana educators at <http://blackbearinfo.com/teachers/>.

Two decades ago the Louisiana black bear was on the brink of extinction, but today it is on the rebound. When the Louisiana black bear was listed as threatened in 1992 under the Endangered Species Act, there were estimated to be fewer than 300 left in the world. Today, through innovative programs to reestablish the Louisiana black bear and habitat restoration projects as well as high-tech monitoring and public education, the Louisiana black bear is on the verge of recovery.



HABITAT IS THE POINT

Prescribed burning is a valuable and inexpensive management tool in the habitat manager's toolbox, especially in pine forests. Rotational prescribed burning at three-year intervals improves habitat for many species of wildlife, improves aesthetics, reduces forest management costs, improves forest health, and minimizes wildfire risk. For more information on prescribed burning and cost-share programs that provide assistance for this activity, contact the LDWF Private Lands Program Biologist in your area.



Pine stand without prescribed burning.



Pine stand with rotational prescribed burning.

LOUISIANA WILDLIFE INSIDER

Louisiana Department of Wildlife & Fisheries
Office of Wildlife
P.O. Box 98000
Baton Rouge, LA 70898

Presorted
Standard
U.S. Postage
PAID
Baton Rouge, LA
Permit No.

Hunter Safety

BY FRED KIMMEL, Education Program Manager

Most Louisiana hunters born after Sept. 1, 1969 have taken a hunter education class where hunting and firearm safety were stressed. Hunter education has contributed to making hunting a safe activity. In fact, a person is 25 times more likely to be injured while bike riding or cheerleading than they are while hunting.

Despite hunting's excellent safety record, each year some hunters are injured while hunting. During the 2013-2014 hunting season there were 17 reported hunting incidents in Louisiana. We use the term "incidents" rather than "accidents" since most were preventable. Louisiana hunters make approximately 6,300,000 hunting trips annually, which means over 99.99 percent of hunting trips were incident-free.

We often equate hunting incidents with the young and inexperienced. However, a review of the incidents that occurred between 2009-2013 revealed that in nearly a third of the cases, the person at fault was over 40 years old. During that same period, 43 percent of the incidents were self-inflicted, and among those that were not, 73 percent involved a shooter and victim that were in the same hunting party. It is incumbent upon each hunter to be aware of their own actions and those of their hunting partners. Remember, safety does not end with the hunter education class - it is an ongoing commitment that responsible hunters make.

The Louisiana Department of Wildlife and Fisheries has developed a series of short hunting safety videos that are available at www.wlf.la.gov. Take the time to review the videos and the precautions outlined to your right and make a commitment to follow them each time you hunt. Review these with your hunting partners and friends to make sure your hunt is safe and enjoyable.



Here are a few simple precautions that will prevent almost all hunting incidents:

- **Always keep your firearm pointed in a safe direction.** Be aware that the safe direction may change as people move around in a blind or in the field. The muzzle of a firearm that is carried on a sling over your shoulder can be pointing at someone if you duck or bend over.
- **Only load your firearm when you are actively hunting and in complete control of the firearm.** When traveling to and from your stand or blind, be sure your firearm is unloaded. Never try to climb into or out of a stand or blind with a loaded firearm.
- **Positively identify your target and pay attention to what is beyond it.** Don't shoot if any uncertainty exists about what you are shooting at or where your bullet/shot will go. Remember that in the low-light conditions that exist at dawn and dusk, it can be more difficult to identify animals or people. Wear hunter orange and insist that your hunting partners do the same.
- **Keep your finger out of the trigger guard and the safety on until ready to fire.** Since your shot should only be made after positively identifying your target and checking to see where your bullet/shot will go, you will have plenty of time to move the safety to the fire position and put your finger on the trigger. If you don't have time to do that, it is not a safe shot.
- **Establish safe zones of fire before the hunt and honor them during the hunt.** This is critically important when hunting in groups such as is commonly done by duck, rabbit, dove and upland bird hunters.
- **If you are hunting from an elevated stand, always wear a full body harness that is properly attached and use a haul line to lift your unloaded firearm or bow into the stand.** Don't leave ladder stands, climbing stands or lock-on stands attached to a tree for long periods. Straps deteriorate and trees grow, causing stands to fall when hunters climb into stands left in position from the previous year. Additional treestand safety information is available from the Treestand Manufacturer's Association (www.tmastands.com).