



Louisiana WILDLIFE INSIDER



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Photo by Margaret Crosby



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Photo by Jerry W. Drago, newsweek.com

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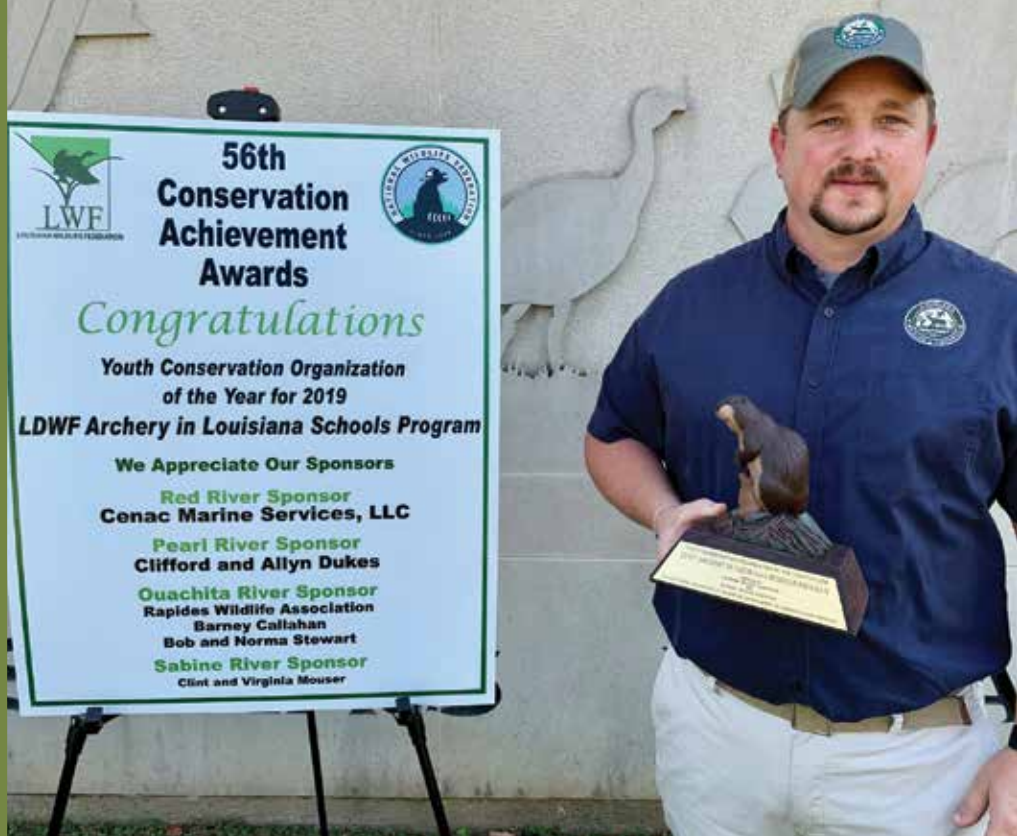
LETTER FROM THE EDITOR

Dear Readers,

The year 2020 was definitely a year for the history books. We will undoubtedly see many changes throughout the new year. There will be many choices that we will all face as 2021 moves along. We hope that you will choose to take time for rest and relaxation. Take time to travel to lands far away, if only in a book. "There is no frigate like a book to take us lands away..." was penned by Emily Dickinson in the mid-1800s. Allow the articles within this issue of the Louisiana Wildlife Insider to take you to lands away, lands scenic and abounding with wildlife. And remember, if you have a question about one of the wild critters that makes its home in Louisiana, we have the professional staff to provide you an answer. Look in the back of this issue for the right individual and give them a call.

Sincerely,

Jeffrey P. Duguay, Ph.D., *Editor*
Eric Shanks, *Associate Editor*
Kenny Ribbeck, *Chief, Wildlife Division*



Louisiana Youth Conservation Organization Award


The Louisiana Department of Wildlife and Fisheries (LDWF) Archery in Louisiana Schools Program (ALAS) has been named the 2019 Louisiana Youth Conservation Organization Award winner in the 56th annual state Conservation Achievement Awards, presented by the Louisiana Wildlife Federation and the National Wildlife Federation.

LDWF's ALAS program, part of the National Archery in Schools Program (NASP), introduces students in grades 4-12 to international target style archery and is generally taught as part of in-school curriculum. The program, founded in May of 2012, now serves more than 200 Louisiana schools and about 23,000 students.

"I'm so proud of the job our ALAS team has done with this outstanding program," LDWF Secretary Jack Montoucet said. "We appreciate the Louisiana Wildlife Federation and the National Wildlife Federation recognizing ALAS with the Youth Conservation Organization award. This program is a gateway for students in our state to discover the great sport of hunting. We're excited about the future for ALAS and the impact it will continue to make."

"One of the nice things about ALAS is that you don't have to be the strongest or the fastest athlete to take part, and it's designed so that all students can learn about archery and participate," said Chad Moore, who oversees the ALAS program for LDWF. "But, it's more than just participating. It's about learning something most know nothing about, then becoming proficient at it. The focus and discipline used to develop this proficiency then crosses over to other aspects of the student's life, including academics."

"It's exciting to see archery programs in Louisiana schools because it is an inclusive sport and the ALAS program is promoting scholastic achievement as well," said Rebecca Triche, executive director of Louisiana Wildlife Federation. "We are pleased to commend the commitment of LDWF and the Louisiana Wildlife and Fisheries Foundation for fostering the program and encouraging the growth in student participation."



This photo portrays good browse availability. There is plenty of browse within reach, high diversity and good cover and habitat.

Deer Browse: *How Much Does it Take?*

BY JIMMY ERNST, DMAP Coordinator

Food, water, cover and space are the four elements of any wildlife habitat. If you wish to manipulate a wildlife population, altering any one of these key features will often give you the result you are looking for. This applies to improving habitat for a desired species or altering a habitat in order to reduce a population of an undesirable species. If you wish to attract birds to your back yard, establishing feeders of various types of bird food, providing water in a bird bath, and trees and shrubs for cover is generally all that is needed.

Providing quality deer habitat is the same thing, albeit on a much larger scale. Often, access to a variety of palatable (good tasting), nutritious food is the limiting factor in deer habitat. For deer, food and cover are often the same thing. Deer will frequently use thick vegetation that they feed on as escape cover, bedding areas, and fawning cover.

Deer are classified as browsers, which simply means they feed mostly by nipping

the buds, twigs, leaves and tender new growth of vegetation (browse) as opposed to grazers, which feed mostly on grasses close to the ground. Deer also browse on fungi, lichens, berries and other soft mast. Being a terrestrial animal, deer must have access to browse where they can reach it, typically from the ground up to about six feet. No matter how much or what is growing above that vertical limit, if it is out of reach it is of no value to deer. Even a tree full of the sweetest acorns provide nothing for deer until the acorns drop to the ground where deer can reach them.

According to Dr. Steve Demarais of the Mississippi State University Deer Ecology & Management Lab, deer need to consume approximately 6% to 8% of their body weight in browse every day. Using the average of 7%, a 100 lb. doe needs seven pounds of browse daily. For a 200 lb. buck, 14 pounds. An average 150 lb. deer requires 10.5 pounds of browse daily, or 315 lbs. per

month. Nutritional demand fluctuates seasonally such as early spring when bucks are recovering from the rut and beginning antler growth, or late summer when does are lactating. At these times, deer need additional protein and minerals to satisfy growth requirements and forage intake may be even higher. After antlers harden and fawns are weaned, the need for protein decreases to a maintenance level and more carbohydrates are needed. This is when hard mast becomes important. Hard mast in the form of acorns, pecans etc. provides much if not most of the carbohydrate needs of deer, although browse is always necessary.

During the 2020-21 deer season, there were 672 properties enrolled in DMAP (Tiers 1,2,3) averaging 2,161 acres. The average weight of 7,319 deer reported harvested on DMAP properties during the 2019-20 season was 128 pounds (bucks and does). For discussion purposes, let's assume that the average carrying capacity of these proper-

LEVELS OF DEER BROWSE

POOR



Browse availability is poor: little or no browse available and poor habitat.

LOW



Browse availability low: some browse available but still poor habitat.

MODERATE



Browse availability moderate (but declining): trees and shrubs beginning to shade out valuable forbs and other herbaceous plants. Much of the tender new growth is out of reach. Cover is thick and deer have difficulty freely moving about.

GOOD



Browse availability good: plenty of browse where deer can reach it. Moderate diversity of browse species but good cover and habitat.

ties is one deer per 40 acres (keep in mind carrying capacity varies widely across the state) which amounts to 54 deer per property. Fifty-four average DMAP deer would require 486 pounds of palatable, nutritious browse every day or 14,580 pounds per month. That's a lot of salad!

So, what exactly are deer looking for when browsing? What is palatable and nutritious? What are the key macronutrients being sought through the plants deer browse? There are likely hundreds of species of plants growing on property you hunt right now that could theoretically satisfy these requirements. Of these hundreds of species, deer only eat a small percentage of them. Of those they do eat, some species, such as blackberry (*Rubus spp.*) and greenbrier (*Smilax spp.*) are browsed heavier when the growth is tender and new and often ignored later in the season when they turn more woody. In general, tender new growth is tastier and more nutritious than older growth, which tends to become more woody later in the season, regardless of species. Palatability is simply what tastes good to them. There are many species of plants in any given habitat that deer just don't eat. No matter what habitat you hunt in, with the possible exception of coastal marsh, many of the preferred species deer feed on can be found throughout Louisiana. Even in the marsh, spoil banks often provide many of the same species that are common elsewhere. In addition to palatability, deer are seeking three key macronutrients which include crude protein, phosphorous and calcium. All are essential for growth and development. Whether antler or skeletal growth, milk production or overall health, these key macronutrients play an important role in the health and productivity of deer.

The DMAP Browse Survey form that we use to evaluate habitat lists 126 species of woody plants that may be encountered on a survey. Certainly not all of them occur on any one property and there are some species encountered that aren't on the list. When conducting a browse survey in the best habitats, we may record somewhere between 30 and 50 different species. With moderate browse pressure, 34% - 66% of these recorded species would be browsed. These numbers work out to about 10-30 different woody species browsed, in good habitat. This survey does not include herbaceous species such as annual forbs and grasses, which provide a valuable component of the nutritional needs of deer, but

are often short-lived and only available for a brief period of time.

Two management techniques that will improve the condition of deer on a property include manipulating the habitat to provide enough quality food for the existing deer herd, or manipulating the deer herd to balance it with the available habitat. Ideally, every deer on a property would have more than enough quality food daily to maximize its potential growth and reproduction. If habitat manipulation is not feasible on a large scale, herd management is the next best tool. Where deer herds are too dense for the existing habitat, DMAP can assist by evaluating the habitat and allowing an increased harvest of antlerless deer in order to reduce the population to a balanced level. Additional antlerless harvest can also improve the sex ratio of bucks and does which is another desirable condition. See Deer Management 101 in the 2017 Spring/Summer Louisiana Wildlife Insider (www.wlf.la.gov/assets/Resources/Publications/Wildlife_Insider/2017_Spring_Summer_Wildlife_Insider.pdf).

Providing tasty, nutritious, browse is not all that complicated, though at times it can be difficult. Usually, all that is required is sunshine. In a closed-canopy forest, lack of sunlight diminishes new growth. Exposing the forest floor to sunlight by removing trees is the most effective method of generating new growth in a forest. In some cases, there are variables outside of your control that may dictate whether or not a timber harvest is feasible. Some properties are located too far from a paper or lumber mill to make timber harvest economically feasible. At other times, low timber prices prevent landowners from finding a buyer for the timber, and some properties are just too small for a commercial logger to economically harvest. In those cases, creating small openings with a chainsaw, specific chemical treatment, or heavy equipment will generate at least some quality browse where deer can reach it.

Managing openings is another method of providing browse. Allowing openings, fields or food plots to grow up in native vegetation and mowing or burning every second or third year will go a long way in generating those pounds of tender vegetation deer need. These areas will also pro-

vide bedding and fawning habitat. Rotating a mowing cycle between two or three fields prevents a “boom or bust” cycle of food and cover in those areas. Managers must be vigilant to not let a field go so long that it becomes too thick to mow and no longer provides the benefits of available new growth. Remember, small trees will become established and must be controlled before they are large enough to prevent mowing. Occasionally, a selective herbicide treatment may be necessary to remove them.

If you don't want to give up an entire field or food plot, consider leaving a buffer of 30-50 feet or more around the edges, allowing the buffer to grow up in native plants while you continue planting the remainder of the field/plot. Providing these “soft” edges still generates native browse and cover, leaves some acreage for planting, and may attract deer out of the woods so you can see them before shooting hours are over in the evenings! Mowing and fertilizing existing roadside briars or field edges will help generate more new growth, providing more browse.

Study up on deer browse plants and learn to recognize them in the woods. Look for browse activity and identify those plants that deer are utilizing on your land. Below is a list of common preferred browse species in Louisiana (Table 1). There are many field guides and several QDMA (now National Deer Association) publications that can

help you identify these and help you manage for them.

Remember, deer must get everything they need where they can reach it - from the ground up to about 6 feet, and they need plenty. Next time you are in your hunting woods, take a look at what, and how much food is available from your boots to your hat. See if you can gather a few pounds of tender nutritious vegetation. If you think that would be quite a challenge, you might need some habitat work. Think about it like this: How far would a deer have to walk, browsing along the way, to obtain the necessary nutrition for one day? In ideal conditions, a deer would not have to venture far to fill his belly, bed down, and do it again tomorrow.

COMMON NAME	SCIENTIFIC NAME	TYPE
Deciduous Holly	<i>Ilex decidua</i>	shrub
Elderberry	<i>Sambucus cannadensis</i>	shrub
Sumac	<i>Rhus spp.</i>	shrub
Dogwood	<i>Cornus spp.</i>	tree
Ash	<i>Fraxinus spp.</i>	tree
Elm	<i>Ulmus spp.</i>	tree
Oaks	<i>Quercus spp.</i>	tree
Red Maple	<i>Acer rubrum</i>	tree
Blackberry/ Dewberry	<i>Rubus spp.</i>	vine
Greenbrier	<i>Smilax spp.</i>	vine
Red-berried Moonseed	<i>Cocculus carolinus</i>	vine
Trumpet Creeper	<i>Campsis radicans</i>	vine



Evidence of deer browse activity on trumpet creeper (*Campsis radicans*).

Louisiana's 2020 Private Lands Conservation Champions

BY DAVID BREITHAUPT, Farm Bill/Grants Program Manager
CHRIS DOFFITT, Field Botanist/Natural Areas Registry Coordinator

LOWER MISSISSIPPI VALLEY JOINT VENTURE

The Lower Mississippi Valley Joint Venture (Joint Venture) is a voluntary partnership comprised of 13 state and federal, and four non-government conservation organizations. Established in 1988, the Joint Venture partnership works collaboratively on conservation of bird populations and their habitats within the Lower Mississippi Valley and West Gulf Coastal Plain/Ouachitas regions in portions of eight states, including Louisiana. It accomplishes this by focusing on the protection, restoration, and management of birds and their habitats in the region. This broad and diverse conservation partnership continues to be an effective and successful forum in which the wildlife conservation community develops and implements a shared vision for habitat conservation.

Much of the wildlife habitat in Louisiana is owned and managed by private landowners. In fact, 89% of our land base is privately owned. Among the group of people charged with the stewardship of these lands, several truly stand out. They pour themselves and their resources into their properties and the wildlife resources, which are a public trust, benefit greatly. In 2017 the Lower Mississippi Valley Joint Venture (LMJVJ) began to recognize Private Lands Conservation Champions, those who manage their lands in a way that benefits multiple suites of wildlife and plant communities, while using these activities to engage others and share what they have learned with members of the public. The LMJVJ is a private, state and federal partnership that exists for the purpose of sustaining bird populations within an eight state area that includes the Mississippi Alluvial Valley and the Gulf Coastal Plain/Ouachitas Bird Conservation Regions. Two of the three entities to receive this honor in 2020 are Louisiana landowners and we are proud to introduce you to them.



Early successional habitat along a habitat corridor.



Native grass management with prescribed fire.

ED JUSTICE Morehouse Parish, LA

Mr. Ed Justice spends many days each year “giving back to the land” on his 850-acre property in Morehouse Parish, Louisiana. The property is located on a 2.5 mile stretch of Bayou Bartholomew, a designated Scenic Stream by Louisiana Department of Wildlife and Fisheries. The lower portions of the tract include mature bottomland hardwood as well as reforested areas of the same forest type. Mr. Justice manages a greentree reservoir in this area as well as maintains permanent water in other locations. Other habitat types include mature mixed pine/hardwood, grassland managed as early successional habitat, and shallow water wetlands. Areas still in agricultural production include a hay meadow and pecan orchard.

Natural resource professionals from many partner organizations have been welcomed on this property over the last 18 years. The property has been enrolled in the Deer Management Assistance Program for many years, providing valuable deer harvest data for this region. The NRCS, US Fish and Wildlife Service, Ducks Unlimited, Quail Forever and others have been engaged to provide technical assistance and Mr. Justice has implemented practices such as grassland restoration, prescribed burning, wetland management and invasive species control. Many of these practices not only provide great wildlife habitat, but have been designed to provide other benefits, including water quality improvement of Bayou Bartholomew, wildlife corridors, and establishment of pollinator habitat. Three-hundred fifty acres have been restored and permanently protected through the Wetlands Reserve Easement Program and the whole property is recognized and enrolled in the Forest Stewardship Program.

Goals at the forefront of Mr. Justice’s operation include not only improving the habitat for wildlife, but also increasing the diversity of plants and animals that utilize the property. The active management employed on this property supports habitat for waterfowl and wading birds as well as forest interior birds, whose habitat is enhanced by active timber management. Recent efforts to create habitat for the monarch butterfly and other pollinators have enhanced the same acreage for northern bobwhite. The continuation of these activities will ensure that Mr. Ed Justice achieves his goal of leaving this piece of property better than he found it. Meanwhile, he will continue to gain the most enjoyment from others coming to experience the bountiful resources that this property has to offer.



Ed Justice receiving recognition as a Stewardship Forest Landowner, Delivered by John Hanks, LDWF Private Lands Biologist.

JOHNNY AND KAREN ARMSTRONG

Lincoln Parish, LA

Dr. Johnny Armstrong and Karen Armstrong have actively managed their 500-acre property in Lincoln Parish to maintain an old growth shortleaf pine/oak-hickory woodland for 13 years. Maintenance and enhancement of this site has been accomplished utilizing a variety of management techniques, including prescribed fire, selective herbicide application, and understory restoration using native Louisiana seed. The Armstrong family has personally conducted the majority of this stewardship work, with occasional assistance from others to assist with tasks such as prescribed burning. Technical assistance has been provided from the Natural Resource Conservation Service (NRCS), D'Arbonne Soil and Water Conservation District and other partners. The property is also part of the Louisiana Department of Wildlife and Fisheries' Natural Areas Registry Program.

Maintenance of this property is essential and consistent with the goals of habitat management on a broad scale for three primary reasons. First, the shortleaf pine/oak-hickory woodland community is critically imperiled in the state and globally vulnerable. This community once covered an estimated 4-6 million acres in Louisiana, but currently less than approximately 10 percent remains. Much of the remaining acreage in Louisiana is less than exemplary, and it is rare to find examples that have both high quality overstory and a well-developed herbaceous layer. Dr. Armstrong has worked with the U.S. Forest Service to collect seeds of native Louisiana plants to enhance the understory of the forest on the property. As a result of the Armstrong family's stewardship activities they have created what is perhaps the best example of this community type in the state.

Secondly, the stewardship activities carried out on this property have improved habitat for many game and nongame species. Mr. Armstrong's use of fire to maintain this open woodland ecosystem creates excellent habitat for wild turkey, northern bobwhite, and white-tailed deer. This shortleaf pine/oak-hickory woodland provides an open understory that is suitable habitat for many grassland birds and other Species of Greatest Conservation Need (SGCN), including grasshopper sparrow, Bachman's sparrow, and red-cockaded woodpecker. Work is also taking place to protect and enhance the riparian areas associated with this habitat.

Finally, the Armstrong family goes out of their way to share their property and experience to enhance the conservation edu-

cation of the general public and university students. Dr. Armstrong has given several guest lectures to conservation biology classes at Louisiana Tech University, sharing his restoration experience with undergraduate students. He has also allowed university faculty and graduate students to conduct research projects on the property, which contribute to an enhanced understanding of this unique woodland community and the

organisms that utilize it. Dr. Armstrong willingly shares his restoration expertise with landowners in the surrounding area, allowing them to benefit from his experience. Brant Bradley, NRCS District Conservationist in Lincoln Parish, summarized this landowner's focus well, stating, "It's easy to work with Dr. Armstrong, because he already has the passion and desire to take conservation on his property to the next level."



Photo by Chris Doffitt
Dormant season prescribed fire.



Photo by Chris Doffitt
Shortleaf pine/oak hickory woodland.



Food Plots: Planting vs Natural Vegetation in Pine Plantations

BY MITCH SAMAHA, LDWF Biologist
Manager - Hunter Education

We've all see them on the hunting shows; huge, lush green food plots, likely planted in clovers, alfalfa, or other highly desirable commercial food plot seed. The white-tails are all over the field, with mature bucks seemingly at every corner of the plot. The many commercial breaks come on, with the advertisers claiming their XYZ seed produces the most attractive, highest protein, antler-producing plants that will attract multiple trophy bucks from miles away into your plot during daylight hours; hopefully as you just finish your doughnuts and coffee. If only life was so easy.

Places like this do exist. What isn't mentioned on most of the TV shows is that much time, effort, and money is spent amending these soils, thereby maintaining their peak productivity and attractiveness. Perhaps a corporate outfitter manages the land, or the land is part of a larger habitat that cooperative landowners have managed together for many years, and have a healthy deer herd to show for it. More often than not, these locations usually have one thing in common; soil quality.

So what if someone in a typical pine plantation hunting lease wanted to create the "perfect" plot? What would developing a one-acre clover plot in a pine plantation

entail? First, they must select a spot and verify with the landowner that they can develop it for a food plot. On leased land an old logging deck may be an option. They must buy, rent, or borrow a tractor/dozer to remove rotting wood and stumps from the surface to expose the soil; disk or harrow the land to relieve compaction from the logging equipment; then conduct a soil test and use that information to determine how much lime will be needed to bring the pH to neutral. This can get tricky and costly, depending on access to large equipment or if the lime must be pelletized and spread by ATV. Then there's the cost of the seed. Actually, the seed may be the cheapest part of the entire process, but it must be planted at the right time and in the right soil conditions. Then they fertilize, plant, and hope. By the time the tractor/dozer, diesel, travel time and expenses, lime, seed, and fertilizer costs are tabulated, a hunter could spend conservatively up to \$820 for a one-acre clover plot. This figure does not include additional weed maintenance as needed.

By contrast, let's look at a fresh clearcut or older natural opening on the same leased land and instead of using commercial food plot seed and all of the aforementioned expenditures, let's see how using native vegetation can compare to the clover plot with both expense and productivity.

First, the logging debris needs to be removed and a soil test conducted. For the native vegetation we wouldn't need a neutral pH of 6.5-7.0 like clover, alfalfa, or peas. Therefore, we may only need half the amount of lime required for clover in order to free up the existing nutrients which are chemically bound by the acidic soil. Light tillage (disrupting the soil about 1/2" to 1-1/2" deep) would incorporate the lime into the soil and encourage the seeds already in the soil to germinate the next rainfall. These naturally occurring plants are what the deer in that region already eat and assimilate as "priority foods." By applying a light fertilizer (about 1/2 of clover recommendations) we allow these native plants to become much more palatable and nutritious than the surrounding vegetation, thereby increasing the attractiveness of the plot. Many species of native plants in the plot are attractive at different stages of growth and maturity, providing available browse for an extended period of time. The primary maintenance required is to cut the plot to about 8" height when growth exceeds waist-height in order to encourage regrowth.

The average cutover, per acre, can have as many as 50 different species of plants that germinate and grow, most of which are used by wildlife. When the average hunter sprays chemicals, tills, and eliminates the "weeds" in his plot preparing to plant his monoculture (i.e., growing a single plant species in a given area), he is replacing a variety of plants that deer and other wildlife eat regularly and is unknowingly replacing this unlimited natural salad bar with just one or two species. Imagine going to a salad bar and there would be three choices: mushrooms, lettuce and pickles. Now imagine a salad bar where the choices are unlimited. Which one would you choose?

By managing the forest and creating native habitats, desirable management outcomes may be achieved faster and more economically when compared to the time, money, and labor put into monoculture plantings.

Our Wildlife Division has publications that can assist landowners and lease holders in identifying deer browse plants. For technical assistance, contact one of our Private Lands Biologists listed in the Staff Directory.

Louisiana Natural and Scenic Rivers System

BY CARRIE SALYERS, LDWF Biologist



In 1970, the Louisiana Legislature created the Louisiana Natural and Scenic Rivers System. The system was developed for the purpose of preserving, protecting, reclaiming, and enhancing the wilderness qualities, scenic beauties, and ecological regimes of certain free-flowing Louisiana streams.

The Louisiana Department of Wildlife and Fisheries is responsible for managing and preserving all streams or segments thereof that are designated in the state's Scenic Rivers System. Since its creation in 1970, this legislation has helped protect approximately 80 Louisiana streams, rivers, and tributaries, totaling 3,100 miles of waterways throughout the state. As one might expect, the streams designated in the Louisiana Scenic Rivers System are as varied as the landscape of our great state. Examples of designated streams include large river systems such as the Ouachita River located in north central Louisiana in Morehouse and Union Parishes, to smaller spring fed waterways like Pushpatapa Creek located in Washington Parish. Of those streams contained within the System, two are designated as historic and scenic rivers. These streams, as the title implies, were designated due to their unique historical status, as well as the scenic characteristics which they possess. One of these two streams is Bayou Manchac, located south of Baton Rouge in Ascension and Iberville Parishes. Long before the enactment of the Scenic Rivers Act in Louisiana, this stream played a significant role in Louisiana's history as a navigable waterbody that was utilized by Native Americans for thousands of years, then by European settlers as early as 1699. Additionally, the Bayou served as a trade route, especially for the fur and logging industries, and as an international border between French and Spanish colonies. The other stream designated as a historic and

scenic river is Bayou St. John, located within the Crescent City of New Orleans.

They year 2020 marked the 50th anniversary of protecting the designated Natural and Scenic Rivers within Louisiana. The program staff and several partnering non-governmental agencies, including the Pontchartrain Conservancy, the Louisiana Wildlife and Fisheries Foundation, The Nature Conservancy of Louisiana, and the Louisiana Wildlife Federation were excited to plan events throughout the year to celebrate all the accomplishments of this historic legislation. This included hosting an anniversary celebration where program supporters and state dignitaries could come together and pay tribute to this important program while showing support for all that it has accomplished. However, as most of us have unfortunately realized, 2020 didn't quite have the same plans as we did. Louisiana Scenic River anniversary event planners quickly realized that hosting a large scale event (although undeniably deserving to the program) was not going to be feasible due to Governor issued safety mandates related to COVID-19.

Although the anniversary event plans had to be altered, two virtual ideas were created; a series of videos promoting scenic rivers located throughout the state (available to be viewed on YouTube with the keywords of Lawildlifefish) and a photography contest.

The purpose of the photography contest was to promote the beauty of our Natural and Scenic Rivers and encourage a

larger portion of the public to explore our designated waterways. All photographs submitted were to portray the wildlife, fisheries, natural habitats or recreational opportunities these streams provide. Three entry categories were created for the photographs to be judged; professional, amateur and youth (any person 15 years of age or younger). Each of the categories was awarded a 1st, 2nd, 3rd and honorable mention. The contest accepted entries from March until August. In that time frame, over 200 participants entered photographs into the contest. The volume of entries submitted truly shows the significance and importance the Louisiana Scenic Rivers Program represents to so many of our citizens across the state. The content of the photos submitted exemplifies what the Louisiana Scenic Rivers Program has been protecting for the last 50 years. They say a picture is worth a thousand words...so despite the slight disappointment of the missed opportunity to host a large celebration event, the Louisiana Scenic Rivers 50th anniversary photography contest genuinely summarized what Louisianans see in these wet natural resources.

The LDWF Scenic Rivers staff would like to extend a sincere thank you to our friends and supporting colleagues from the Louisiana Wildlife Federation, the Louisiana Wildlife and Fisheries Foundation, The Nature Conservancy - Louisiana, and the Pontchartrain Conservancy. Our 50th Anniversary celebration plans and photography contest would not have been possible without your support.

If you would like to support the Scenic Rivers Program and its mission to protect our designated streams visit the website below. Information and a map showing the Louisiana Natural and Scenic Rivers can be found at www.wlf.la.gov/page/scenic-rivers

PROFESSIONAL PHOTOGRAPHER WINNERS



1st PLACE

Tchefuncte River Ripples by Margaret Crosby



2nd PLACE

Sunrise on the Blind River by Gegory LeBlanc



3rd PLACE

Abita River by Edward Estapa

AMATEUR PHOTOGRAPHER WINNERS



1st PLACE

Tchefuncte Summers by Karen Boudreaux



2nd PLACE

Bayou Bartholomew by Greg Harper



3rd PLACE

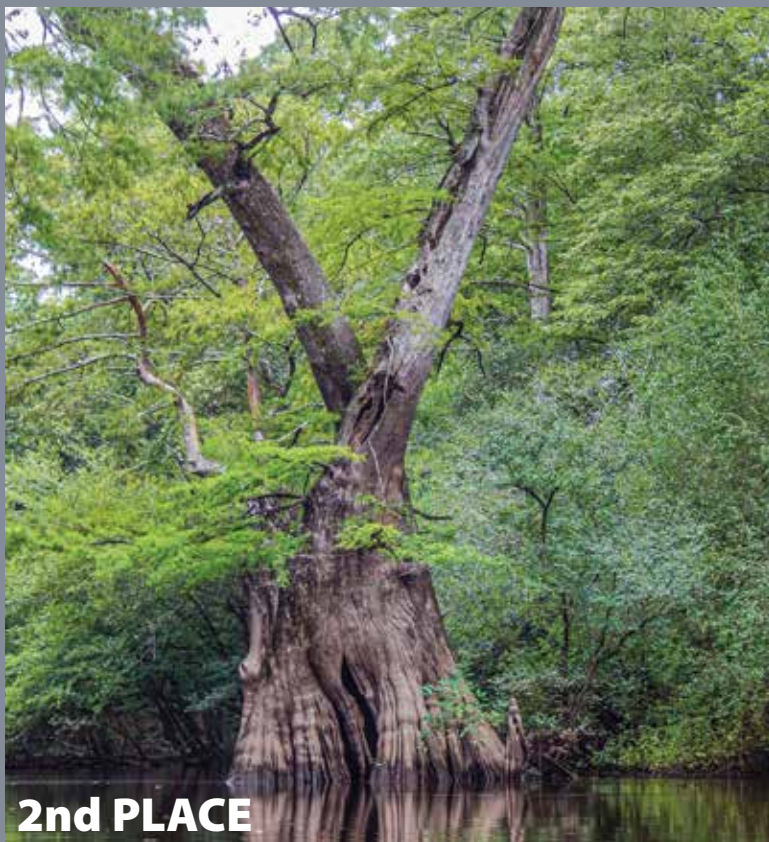
Brown Pelican in a Tree, Bayou Des Allemands by Rick Erbach

YOUTH PHOTOGRAPHER WINNERS



1st PLACE

Peace, Tchefuncte River by Olivia Currier



2nd PLACE

X Marks the Spot, Bayou Bartholomew by Lexi Harper



3rd PLACE

Bayou Bartholomew by Lexi Harper

HONORABLE MENTION



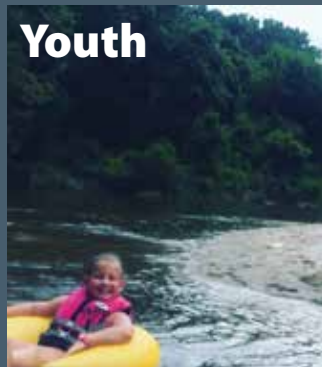
Professional

Whiskey (Ouiska) Chitto Creek by Jason Saucier



Amateur

In Blind River We Trust by Travis Moore



Youth

ABOVE: *Floatin' Down Stream, Whiskey (Ouiska) Chitto Creek* by Jessica Phillips

RIGHT: *Quite River, Bogue Falaya River* by Juliette Andry



Youth

A Case for Keeping Wood in Our Streams

BY MATT WEIGLE, LDWF Biologist Program Manager

Rivers and streams which flow through our forested landscapes not only collect and transport water (and sediment), but they also recruit and retain large wood (LW). Large wood, also referred to as large woody debris, is typically defined as natural woody material with a diameter greater than four inches and a minimum length of 6 feet. Blowdowns, erosion, and other processes cause this natural debris to be relocated from streambanks to streambeds. Notably, when this wood remains below the waterline, it can persist for decades or centuries while some species may reside in channels for millennia (Naiman et al. 2002). Researchers report that prior to European settlement, our streams were quite different. It is believed that wood present in streams today is a mere fraction of what persisted before human intervention began. Whether by snagging for navigation or removal for drainage purposes, or as a result of deforestation and other practices occurring over the past two centuries (and before), large wood was removed en masse from our waters.

Although wholesale removal of instream wood has subsided in many regions, we still see significant impacts from clearing and snagging occurring today. In hasty attempts to improve drainage efficiency, streams can be reduced to storm drains, losing much of the ecological value they had provided. We have seen numerous, well intentioned projects which have extensively cleared and snagged natural channels across our state, removing essentially all LW from these waterways. The impacts associated with these projects are often not always fully grasped by decision makers,



Photo of large wood increasing habitat diversity and detention of detritus in an otherwise homogeneous reach of Bogue Falaya's streambed. The dark area within the lower left-hand portion of the photo - a pool of deeper water containing important organic matter contrasts with the remainder of the sandy, uniform, streambed.



Natural large wood retention within the relatively undisturbed upper reaches of the Tchefuncte River. The channel spanning log within the upper left-hand corner of the photo is not only providing grade control and other benefits, but as streamflow is directed over it, the turbulence created is entraining oxygen from the atmosphere.

and there are often unintended consequences to our fish and wildlife resources, and residents as well. As many biologists know, despite its bad reputation, LW plays several crucial roles in healthy streams and is essential to maintaining many of the functions and services our waterways and associated wetlands provide.

Unfortunately, public perception of LW in streams remains mostly negative. Large wood is much maligned and under appreciated by most; consequently, projects aimed at removing all or most wood (snagging) from natural rivers and streams often receive little scrutiny. It is true that large wood can sometimes pose hazards to inhabitants, increasing river stage (i.e., flooding) and impeding navigation and other recreation. Mobile large wood can also place added stresses on infrastructure from collisions and accumulations causing obstructions at bridges and culverts that can lead to scour and other issues. It is hard for this biologist to understand, but some even report LW to be displeasing to their aesthetic sensibilities. Nonetheless, as we will explore below, the benefits provided by this natural debris are indeed important to the environmental and ecological health of our rivers and streams, as well as the well-being of our communities, providing various natural functions and ecosystem services that should be considered more carefully when making stream management decisions.

BENEFITS OF LARGE WOOD

Flow Regulation

Large wood in streams aids in regulating stream flow and reducing downstream flood peaks. Ironically, although today we most often see projects removing wood from streams for the stated purpose of flood risk reduction, maintaining wood in streams can actually play a big role in reducing flood risk (especially downstream). Instream wood adds roughness and slows flows. Accumulations cause streams to retain more water; not only within their channels, but within floodplains, and, importantly, the hyporheic zone (the porous substrate underlying the channel). Provided development or other incompatible land use has not encroached on the affected floodplain, floodwater, sediment, and nutrients can thereby be dispersed harmlessly and detained in the riparian “sponge”. Well connected floodplains encourage surface water to more readily interact with shallow groundwater, allowing the hyporheic zone to store large portions of what may otherwise be flood flow. This natural stor-

age area absorbs floodwater and nutrients, very slowly metering out stream discharge over weeks and months, maintaining stream flow during droughts, and increasing groundwater recharge - a benefit that is certainly important to many of our parishes. On a watershed scale, the benefit this natural storm water storage provides to those in downstream floodplains (and the homes, businesses, and infrastructure within them) can be immense. Conversely, cleared and snagged channels rapidly deliver more flow downstream, often incising and becoming disconnected from their floodplains and interacting less with their hyporheic zones, creating a “flashy” system with greater discharges resulting in higher downstream flood peaks.

Water Quality Improvement

With LW induced overbank events, the distribution of nutrients and sediment over natural floodplains occurs, sequestering meaningful amounts of excess nitrogen, phosphorus, and other nutrients. Likewise, LW increases hyporheic exchange that may have significant influence on water quality. Hyporheic zones of streams have been compared to the liver of vertebrates, due to their ability to remove pollutants (Fischer et al. 2005). Shading provided by healthy riparian vegetation, as well as the effect of pools and hyporheic exchange (maintained in great part by LW), all contribute to stream temperature regulation and cooling during the hotter months. Cooler water holds more dissolved oxygen which is essential to all aquatic animals. Additionally, the roughness of large wood interacting with flowing water creates turbulence that entrains atmospheric oxygen.

Unfortunately, with overuse of lawn fertilizer, poor agricultural practices, less than sanitary sewage discharges and other point source and non-point source pollution occurring throughout our watersheds, our waterways are often impaired by excess nutrients. As those excess nutrients enter receiving waters, eutrophication, low dissolved oxygen, and other issues commonly occur. Clearing and snagging can exacerbate these issues. Clearing removes extensive shading along streams. Snagging removes LW and promotes a less complex channel, devoid of deeper pools. In turn, water warms and the dissolved oxygen levels drop. Due to related impacts, many of our streams are not meeting their use designations (such as fish and wildlife propagation and primary contact recreation) and subsequently must be prescribed more rigorous environmental regulations which

limit the permissibility of discharges. Industry and development are thereby impacted. Commercial and recreational fisheries and our quality of life are impacted as well.

Habitat and Diversity

Large wood is essential to the creation and maintenance of aquatic organism habitat. There is also a relationship between LW and riparian wildlife - the majority of wildlife species make significant use of stream corridors at some point in their life cycles (Niaman et al. 2002). LW and the organic material it traps support the basis of stream food webs, providing substrate for microscopic algae and a food source (and substrate) upon which insects and other invertebrates rely. This is especially important in lowland rivers such as ours, where primary substrates are shifting silt and sand that are unsuitable for these organisms. The benefits LW provides extend up the trophic levels. Wildlife food resources are relatively dense in close proximity to LW (Mason and Koon 1985), and nearly every angler knows that the natural cover which LW provides attracts sought after gamefish. LW provides cover for both predators and prey species, as well as refuge from current. As the stream flows over and around LW, localized erosion and deposition occurs, sediments are sorted, bedform diversity increases, and complex stream habitat develops. From gravel beds, to deeper pools, much of this important habitat can be degraded or lost when LW is removed throughout a stream reach. Subsequently, stream productivity decreases.

Stream Stability

Although LW can cause minor, localized scouring and may encourage channel migration where large accumulations occur (neither of which are necessarily detrimental to streams), generally, LW reduces major erosive forces. Having higher levels of LW present reduces stream energy. LW preserved within stream beds and accumulations of LW provide grade control, preventing the harmful effects of channel degradation and incision (downcutting of the streambed). LW along streambanks can provide natural armoring, making banks more resilient. Because of its importance in this regard, LW and LW structures are used to restore and stabilize impacted streams. Contrastingly, extensive removal of wood from streams (i.e., snagging) can result in erosion of streambeds (Faustini and Jones, 2003) and channel widening can ensue as the channel evolves and banks erode (Brooks et al., 2006).

MANAGEMENT OF STREAMS AND LARGE WOOD

The authors of the 1970 Louisiana Scenic Rivers Act (www.wlf.la.gov/page/scenic-rivers) understood the importance of large wood, and in their wisdom, they specified that clearing and snagging be prohibited on our designated streams. Other streams throughout Louisiana are not afforded such protection; however, the natural functions and ecosystem services they provide are equally important. We, therefore, must make well informed decisions when considering removal of LW on any river or stream. We should consider ways to mitigate risks without taking drastic measures such as wholesale clearing and snagging of a natural waterway. LW should only be removed when there is compelling evidence it is causing unacceptable flood risk or some other intolerable hazard, and its removal does not transfer that risk to other communities. Best management practices and guidelines should be adopted to minimize impacts to stream and aquatic habitats and maintain important functions and services to the greatest extent practicable.

Although some folks may be late to consider the importance of this resource, many have been developing tools that can better guide wise management of our natural waterbodies and the LW within. Importantly for Louisiana, efforts such as the Governor's Watershed Initiative (www.watershed.la.gov) will provide information such as hydrology and hydraulics modeling and capacity building (knowledge, tools, and other resources) that will allow for more effective flood mitigation while promoting a watershed approach and nature-based solutions (sustainable management and use of natural resources for overcoming socio-environmental challenges such as flood risk). Mindful cost benefit analyses, such as the Federal Emergency Management Agency's updated cost benefit analyses toolkits, include ecosystem services within their calculations to allow for better informed decision making around complete project costs/benefits, including an accounting for natural functions lost or gained. There are also tools such as Wholl's Management of Large Wood in Streams and others which allow decision makers to more accurately assess both the hazards and benefits associated with LW, and encourage prudent mitigation instead of overreaction. Further, agencies across the U.S. have developed restoration guides as well as best management practices related to LW and its maintenance. One example is the 2016 Large Wood National Manual, developed jointly by U.S. Army Corps of En-

gineers and the Department of the Interior Bureau of Reclamation.

Informed management will better avoid unsound projects and unnecessary spending, preserve valuable ecological functions and services, and prevent unintended consequences such as increased downstream flood risk from occurring. We can strive to make wiser investments in our future infrastructure and use of riverine floodplains. If we give streams the space they demand, our natural channels (and their floodplains) can be allowed to function and provide essential ecosystem services to our communities, providing for our state's unique way of life.

LITERATURE CITED

Brooks, A.P., T. Howell, T.B. Abbe, and A.H. Arthington, 2006. Confronting Hysteresis: Wood Based River Rehabilitation in Highly Altered Riverine Landscapes in South-Eastern Australia. *Geomorphology* 79:395-422.

Faustini, J.M. and J.A. Jones, 2003. Influence of Large Woody Debris on Channel Morphology and Dynamics in Steep, Boulder-Rich Mountain Streams, Western Cascades, Oregon. *Geomorphology* 51:187-205.

Fischer, H., F. Kloop, S. Wilzcek, and M.T. Pusch, 2005. A River's Liver: Microbial Processes within the Hyporheic Zone of a Large Lowland River. *Biogeochemistry* 76:349-371.

Mason, D. T.; Koon, J. 1985. Habitat values of woody debris accumulations on the Lower Stehekin River, with notes on disturbances of alluvial gravel. Final report to the National Park Service (contract # CX-9000-3-EO66), Bellingham, Washington.

Naiman, Robert & Balian, E. & Bartz, Krista & Bilby, Robert & Latterell, Joshua. 2002. Dead Wood Dynamics in Stream Ecosystems. USDA Forest Service General Technical Report. 181.

Wohl, Ellen, Brian P. Bledsoe, Kurt D. Fausch, Natalie Kramer, Kevin R. Bestgen, and Michael N. Gooseff, 2016. Management of Large Wood in Streams: An Overview and Proposed Framework for Hazard Evaluation. *Journal of the American Water Resources Association (JAWRA)* 1-21. DOI: 10.1111/1752-1688.12388.



A recently cleared and snagged stream within an undeveloped small stream/spruce pine hardwood forest. Large wood and vegetative roughness along the banks have been removed. Considering the lack of development along the floodplain, it was not apparently clear why this stream was selected for such drainage work.



Boots on the Ground

BY BRADLEY BRELAND, LDWF Biologist Supervisor



Louisiana truly is the “Sportsman’s Paradise” when you consider the amount of public land open for outdoor recreational activities, such as hunting and fishing. At the present time there are 59 Wildlife Management Areas (WMAs)/Refuges managed by LDWF, totaling over 1.5 million acres. To put this number into perspective, the state of Texas is over five times the size of Louisiana and has 50 WMAs totaling 748,768 acres.

When we think of Louisiana’s WMAs and refuges, what comes to mind? Is it opening morning of squirrel season along a hardwood bottom, a youth lottery turkey hunt in the upland hardwoods, a flock of migrating waterfowl circling a decoy spread in the brackish marsh, a fantastic fishing, crabbing or shrimping trip, an early morning hike on a WMA Nature Trail, or the opening of deer season in the bottomland hardwoods? Have you ever wondered what goes on behind the scenes of these public lands? Throughout the year, men and women spend countless hours putting their boots on the ground while doing the necessary work to maintain these areas for public enjoyment.

DAY-TO-DAY OPERATIONS OF A WMA/REFUGE

The very nature of the daily activities for personnel assigned to WMAs and refuges changes about as much as the Louisiana weather. A large portion of the WMAs in Louisiana is in bottomland hard-

wood forests which experience seasonal backwater flooding, making road and trail maintenance one of the most time consuming and costly aspects of our operations. For example, Dewey Wills WMA has approximately 45 miles of roads that are maintained by LDWF. This maintenance involves much more than simply making a single pass with a motor grader. There are drainage culverts that need to be cleared due to being clogged with debris or blocked by dams built by beavers. Sometimes these culverts get washed out or over time will simply rust out and must be replaced. The roadsides must be maintained by rotary cutters and limbs must be trimmed by sideboom cutters, or sometimes by hand. Additionally, there are over 700 miles of access trails throughout the WMA system. While many of these trails do not require the same amount of time as roads to maintain, there are still washouts to repair, limbs to be trimmed, and grass cutting that has to be done. Being such an active year for tropical systems, you can only imagine what it is like to reopen these trails and roads on a WMA impacted by a hurricane. After Hurricane Katrina impacted Pearl River WMA in 2005, it took LDWF staff roughly 16 months to reopen all of the roads and trails.

Another major undertaking is to mark and maintain the thousands of miles of boundary, most of which can’t be marked by driving a vehicle. This work is typically

done during the winter months when the foliage is off the trees (making visibility of boundaries easier) and weather is much cooler. Boundary marking requires the use of ATVs, boats, pirogues, or walking for miles and miles across varied terrain, carrying a backpack loaded with a paint gun, nails, hammers, and signs. Once the boundary has been marked, it must be remarked periodically, usually every five years, to touch up paint and replace any lost signage.

Forest and wetland management, managing wildlife openings, dove fields, shallow water impoundments, green tree reservoirs, controlled burning, and various other habitat management/improvement/restoration projects are additional tasks for the undertaking. This is not intended to be a habitat management article, so I will spare us all some time by not discussing the specifics on these activities. Instead, I will attempt to give you a glimpse of how time consuming these activities can be. On the area of Sherburne WMA known as the “South Farm”, there is approximately 350 acres of shallow water impoundments managed for waterfowl and shorebirds. This area must be drained, clipped, fallow disked, sprayed and even burned at times to promote desirable vegetation and eliminate undesirable vegetation. All of these activities are accomplished at very specific times throughout the year in order to provide desirable habitat conditions for the species of interest.



Sandy Hollow WMA is a managed long-leaf pine forest where approximately 2,500 acres are controlled burned each year. With an emphasis placed on quail habitat management, this area is broken into over 100 individual burn units with the largest unit being just over 100 acres in size. This many burn units results in close to 100 miles of fire lines to maintain and plow prior to burning.

In preparation for opening day of dove season (Labor Day weekend), several WMAs across the state plant dove fields. Dove field preparation begins in early April. Fields must be clipped, plowed (if not using a no-till drill), and/or herbicide applied. The time of planting each field is staggered, dependent upon the crop planted, as well as to provide a food source throughout the season. Once the crop is planted, it must be regularly inspected for army worms and often times sprayed with an insecticide as many as three times before maturation. Beginning several weeks prior to the opening of season, strips of the crop are clipped, sprayed, and or burned to provide a consistent food source until the season opens.

Fishing, shrimping and crabbing are very popular activities on refuges and some WMAs. Many improvements such as boat launches, parking lots, piers, docks and walkways are provided to enhance user experiences. These improvements as well as high use areas require routine trash collection,

vegetation control, repairs and maintenance.

In order to perform the required upkeep of a WMA/refuge, equipment such as boats, ATVs, UTVs, tractors, and heavy equipment are necessary. Ensuring that this equipment is well maintained and repaired when necessary is not only vital to the upkeep of these areas, it is also necessary to ensure the wise use of funding. Additionally, facilities such as bunkhouses, equipment sheds, WMA/refuge offices, self-clearing permit kiosks, deer check stations and other structures must be maintained.

Self-Clearing Permits (SCPs) are another time consuming task. SCPs are used as a two-part check-in and check-out system for WMA users. Completing the permit can be done in two ways. The first is by stopping by one of the kiosks located near the entrances to the WMAs and using one of the paper permits. The second is through the use of the LDWF WMA Self-Clearing Permit app on your smart phone. This process is required for all activities on a WMA, with the exception of fishing/boating where the user does not launch at an LDWF boat ramp and for motorists passing through the WMA, provided the most direct route is taken. These kiosks must be maintained year-round and permits resupplied, collected, and counted. The data collected from the paper permits is added to the phone app data, satisfying the requirements for federal funding and providing LDWF a better understanding of

user groups, harvest totals, and other WMA use information. All of this user information is utilized when making management decisions. A good example of the effort required by department staff to collect the permits would be Maurepas Swamp WMA, which has 16 SCP kiosks on the property. It is approximately 150 miles by vehicle and 50 miles by boat to visit each of these kiosks to collect and resupply permits. During peak hunting seasons, these permits need to be collected multiple times per month, separated by user activity and counted.

Research is also an important activity that occurs on WMAs and refuges. Rockefeller Refuge is the leading research area for alligators and is home to the whooping crane reintroduction program. Wood duck, mottled duck, woodcock and dove banding, turkey nesting ecology studies, Bachman's fox squirrel home range study, Louisiana black bear population monitoring, and wildlife disease prevalence studies are just a few of the ongoing research projects on WMAs and refuges.

Lottery hunts and managed hunts occur on many of the WMAs. These hunts provide a wide array of opportunities for WMA users, such as the lottery youth turkey hunt on Peason Ridge WMA, lottery duck hunts at Sherburne or Bayou Pierre WMAs, the lottery youth deer hunts at Buckhorn, Pointe-Aux-Chenes, or Floy McElroy WMAs, lottery dove hunts at Elbow Slough WMA,

or one of the numerous mandatory deer check days on WMAs throughout the state. These hunts are a culmination of all the hard work that staff perform throughout the year. While working these hunts may be time consuming, they are what most of the LDWF staff look forward to each year. There's simple joy to be found in seeing the face of a hunter light up with a grin from ear to ear upon harvesting their first squirrel, deer, duck, turkey, or dove. Feelings of nostalgia can be evoked by interacting with WMA hunters and hearing their stories of the deer that got away or the time they flipped their pirogue while trying to retrieve a harvested wood duck. For staff, seeing the public enjoy Louisiana's abundant public lands provides a great reward for the efforts they put forth while working on these areas throughout the year.

BOOTS ON THE GROUND

So who are the men and women that are making it happen? Wildlife Technicians are the actual boots on the ground. They are the backbone of the WMA and refuge systems. Their skills are many, as they must perform as heavy equipment operators, master plumbers, finish carpenters, farmers, electricians, diesel mechanics, welders, heavy haul truckers, research assistants, hunter/boater rescuers and WMA/refuge user counselors. Many times, they wear several of these hats in a single day. Without them there is simply no way the WMAs and refuges would function as they do today. Not only does this group of individuals work on the WMAs and refuges, they also play a vital role in assisting with research activities on private lands by keeping wood-duck and turkey trapping sites baited, monitoring game cameras, and assisting with trapping efforts, or other research projects coordinated through the various species programs.

While this article has only scratched the surface of what these individuals do to manage the WMAs and Refuges entrusted to LDWF's care, I hope it gives you a glimpse into the vital role these staff provide to the Sportsman's Paradise. To all the Wildlife Technicians, past and present, I tip my hat and simply say, thank you, for all that you do in service for the wildlife of our state and the citizens of Louisiana.

LDWF TECHNICIANS BY REGION

HAMMOND REGIONAL FIELD OFFICE

BILOXI, HUTCHINSON CREEK, LAKE RAMSEY, PEARL RIVER, SANDY HOLLOW, TANGIPAHOA PARISH SCHOOL BOARD, TUNICA HILLS



Calvin Waskom
Technician Supervisor



Robert "Wade" Fitzsimons



Brian McNamara

JOYCE, MANCHAC, MAUREPAS SWAMP



Jason Childres
Technician Supervisor



Cole Galloway

PINEVILLE REGIONAL FIELD OFFICE

DEWEY WILLS, LITTLE RIVER



Brandon Tyler
Technician Supervisor



Austin Belgard



Conner Watson

ALEXANDER STATE FOREST, CAMP BEAUREGARD, ELBOW SLOUGH, SABINE



Chuck Bantel
Technician Supervisor



Sammie Cerami



Mike White

MINDEN REGIONAL FIELD OFFICE

BAYOU PIERRE, BODCAU, LOGGY BAYOU, SODA LAKE



Todd Bridges
Technician Supervisor



James Stewart

LAKE CHARLES REGIONAL FIELD OFFICE



Leonard Bennett
Technician Supervisor

CLEAR CREEK



Ken Harbison

PEASON RIDGE



Bubba Parker

FORT POLK-VERNON



Cliff Sonnier

WEST BAY



Rion Sonnier

LAFAYETTE REGIONAL FIELD OFFICE

ACADIANA CONSERVATION CORRIDOR, ATAKAPAS, ELM HALL, SHERBURNE, THISTLETHWAITE



Eric Dement
*Technician
Supervisor*



Kyle Ford



Guy Patout



Kenny Deville

RICHARD K. YANCEY



Paul Lemoine
*Technician
Supervisor*



David Landry



Martin Sons

GRASSY LAKE, POMME DE TERRE, SPRING BAYOU



Greg Lachney
*Technician
Supervisor*



Francis Rogers

LAFAYETTE COASTAL REGIONAL FIELD OFFICE

ATCHAFALAYA DELTA, ISLE DERNIERES BARRIER ISLAND REFUGE, MARSH ISLAND REFUGE, STATE WILDLIFE REFUGE



Justin Hebert
*Technician
Supervisor*



Todd Credeur



Bryson Repond



John Saunier

POINTE-AUX-CHENES, PASS-A-LOUTRE, SALVADOR/TIMKEN, LAKE BOEUF, QUEEN BESS REFUGE



Trebor Victoriano
*Technician
Supervisor*



Carl Pellegrin



Harold
Prosperie



Kami
Schexnayder

HEAVY EQUIPMENT SECTION



Gil Broussard



Stanton Bujard



Corey Dupont



Ellis Marceaux



Randall Segura

MONROE REGIONAL FIELD OFFICE

RUSSELL SAGE



Chuck Easterling
*Technician
Supervisor*



Tracy Farrar



Nick Freeland



Jacque Vidrine

BIG LAKE, BUCKHORN, J.C. SONNY GILBERT



Randy Ewing
*Technician
Supervisor*



Robert
McClatchey



William Hatton

BAYOU MACON, BEN LILY WILDLIFE CONSERVATION AREA, BIG COLEWA BAYOU, BUSSEY BRAKE, FLOY WARD MCELROY



Greg Crawford
*Technician
Supervisor*



Matt Bass

BOEUF



Bill Spangler
*Technician
Supervisor*



Justin Carr



Josh Briscoe

Real Life Cryptid: *The Search for the Eastern Spotted Skunk*

BY JENNIFER MANUEL, LDWF Fur Biologist

Photo by Jerry W. Dragoo, newsweek.com

At roughly the size of a squirrel and largely nocturnal, spotted skunks (*Spilogale putorius*) can be quite common in an area and still manage to avoid every means of detection. They are not easily trapped and their small size allows them to avoid triggering most game cameras. This combined with the facts that skunk pelts have not been traditionally valuable furs and skunks are not popular game animals meant that they were easily ignored by biologists. In recent years, sightings of this animal are even less likely due to its range-wide decline. In Pennsylvania, they had not been seen for over 60 years and in South Carolina they had not been documented in 18 years. They have only recently been captured in both states because of focused efforts to determine their presence.

In Louisiana, its presence has not been documented in over 36 years despite having been photographed in every bordering state. Growing interest in this species across its range and a possible listing under the Endangered Species Act means it's time to focus efforts on trying to find this elusive animal here in Louisiana.

Also known as the civet cat or polecat, *Spilogale putorius* translates to spotted weasel with the fetid odor. The name skunk actually comes from an Algonquin word. There are three subspecies of Eastern spotted skunk; the Florida spotted skunk (*S. p. ambarvalis*) which lives across the peninsular part of Florida, the Appalachian spotted skunk (*S. p. putorius*) which ranges from northern Florida to eastern Louisiana and north to Pennsylvania, and the plains spotted skunk (*S.p. interrupta*) which ranges from western Louisiana and Texas and north through the midwestern United States and up to Canada.

Rarely weighing more than two pounds, spotted skunks are the smallest species of North American skunk, they are also the most active and exhibit a variety of unusual behaviors. Though they are most likely to run or climb a tree when encountering a threat, they will also display a number of defensive behaviors that are characteristic of the species. Like other species of skunk they will stomp their feet, but if that doesn't work, they will balance on their fore feet and raise their hindquarters in the air

in a "handstand". This displays their spots and makes the animal appear larger. As a last resort, they can perform the act that all skunks are known for. They will spray and though they are capable of spraying from their handstand, they typically drop back to all fours before unleashing their fetid odor. Spotted skunks are found in a variety of habitats from rocky canyons to prairie, sandy palmetto thickets to hardwood and pine forests. They have also been observed near open beaches and suburban neighborhoods. The one thing that all the areas where they have been spotted have in common is a thick understory or lots of debris or structure to serve as cover from owls or bobcats (*Lynx rufus*), their primary predators. They will utilize fallen logs, wood piles, and elevated buildings for foraging and protection. Borrowing is also important to spotted skunks. They are capable of digging their own burrows but will also utilize burrows dug by armadillos (*Dasypus novemcinctus*).

Considered omnivorous, their preferred food source consists of beetles, crick-

ets, grasshoppers, and grubs but they will readily eat eggs, small mammals or birds, and fruit or corn when insects are depleted. They could be considered a beneficial species in some areas because of the amount of insects that they consume. In Florida, their tendency to depredate ground nesting bird eggs has made them a bit of a nuisance in areas where restoration efforts for the critically endangered Florida grasshopper sparrow (*Ammodramus savannarum floridanus*) are being conducted.

Spotted skunks mate in early spring with young born in May or June. Litter size can range from four to six kits. At just 24 days old, the young will begin to display the defensive handstand and at 46 days old, they become capable of spraying. Young are weaned at 54 days but may stay with their mother for an additional few months and learn how to forage.

The eastern spotted skunk's range traditionally covered much of the midwest and southeastern United States. They were mostly overlooked because of their secretive nature and because they weren't a typical target of hunters or trappers. This changed in 2005 when a study published in *Animal Conservation* looked at long term harvest trends for spotted skunks and found evidence of a range wide decline (Gompper and Hackett 2005). The data had been corrected for market pressure. The study showed statistical evidence that spotted skunk populations had been declining sharply since around the 1940s. This helped draw attention to the lack of basic information

available on this long ignored species. Their findings have been backed up by several ongoing studies in several states that have attempted to capture spotted skunks. Though techniques for determining presence or absence of spotted skunks has improved, they remain rare or absent from areas where they were previously documented.

In Louisiana, their historic range was thought to be the Florida parishes along the north side of Lake Ponchartrain and west to the Mississippi river north of Baton Rouge. A smaller population occurred in the Cameron prairie in the southwestern part of the state. This historic range was established from trapping records, museum specimens and confirmed sightings which have been documented in 1974's "The Mammals of Louisiana and its Adjacent Waters" (Lowery 1974). Lowery remarked on the lack of specimens from North Louisiana but could not explain why none had been seen there despite sightings just across the borders in Arkansas, Texas and Mississippi.

Spotted skunks are considered a furbearer and can be trapped during the legal trapping season. However, trapping records have not always differentiated between

striped skunks (*Mephitis mephitis*) and spotted skunks and there is no differentiation between the species in the Louisiana wildlife regulations. Also, older records often referred to spotted skunks by other names such as civet cat. This has made it difficult to determine harvest numbers in some years. In years where numbers can be teased out, the harvest data shows a sharp decline in harvest of spotted skunks.

In the 1928-29 season, 7,279 spotted and 31,661 striped skunks were reported to have been harvested. Average price per pelt that season was \$1.25. This is in comparison to the average price paid for all seasons between 1928 and 1974 which is \$0.40. In the seasons between 1939 and 1943, average annual harvest of spotted skunks was 205 while striped skunks average around 11,945 each year. In 1966-67, only 23 spotted skunks were harvested along with 260 striped

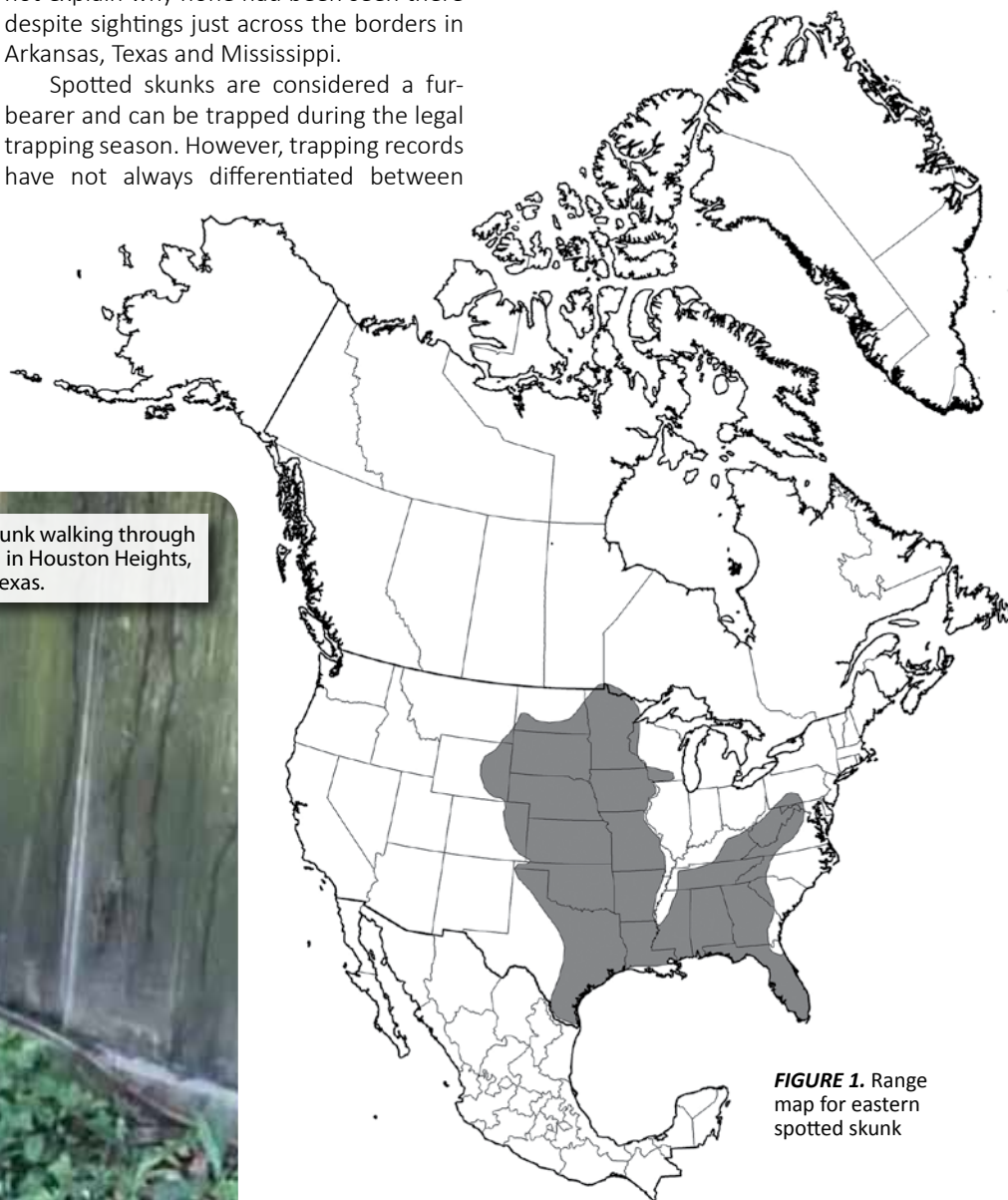


FIGURE 1. Range map for eastern spotted skunk



skunks. Even in 1974, Lowery pointed out a 97% decline in harvest of spotted skunks. Today, almost no skunks are harvested in Louisiana for fur. There is no international market for skunk fur when so many other species such as fox and raccoon (*Procyon lotor*) are so widely available. A healthy market still exists for skunk essence if a trapper is intrepid enough to collect it, with the compound selling for approximately \$30.00 an ounce. Skunk essence is still used in the manufacture of high-end perfumes and cosmetics as well as lures for trapping.

Since Lowery's book there has been only one confirmed sighting of a spotted skunk in Calcasieu Parish, in 1986. Records of sightings are kept by the LDWF's Wildlife Diversity Program.

Today, their range in Louisiana is unknown and it is the focus of ongoing research. Surveys funded by the State Wildlife Grant program through LDWF and United States Fish and Wildlife Service (USFWS) were conducted by Dr. Paul Leburg with

University of Louisiana at Lafayette between 2009 and 2012 at sites throughout the historic range of the spotted skunk. The survey included the use of track plates, hair snares, cameras, and live traps. The study was not successful in obtaining any confirmed detections of spotted skunks. Their stations were baited with sardines. One interesting finding from their study showed that at sites where red imported fire ants (*Solenopsis invicta*) found the bait and built a mound, the number of mammal visits to that station dropped precipitously. It's unclear whether the presence of fire ants affected detections or if the ants have impacted spotted skunk populations. Even though it has been decades since a spotted skunk has been confirmed in Louisiana, it's possible that spotted skunks still exist here but they are rare, cryptic and the general public does not know of their importance. If they still live in Louisiana, someone has seen one or perhaps captured a photo but they are unaware of the importance of their sighting.

It is not known exactly why they are declining across their range. One possibility is habitat loss and fragmentation. Though spotted skunks can survive in a variety of habitats, they do best in early successional forests, hedgerows, or forests untouched by fire or herbicides where the understory is allowed to grow. Changes in forest management and agriculture practices have reduced this kind of habitat. Also, management for some federally endangered species such as the red-cockaded woodpecker (*Picoides borealis*) and the Louisiana pinesnake (*Pituophis ruthveni*) which decreases the availability of early successional forests may have affected spotted skunk numbers. Other theories include the use of pesticides which would decrease available prey and possibly affect reproductive success, the invasion of the fire ant, as well as disease. Like other skunk species, spotted skunks are vulnerable to rabies, parvovirus, distemper, and a variety of bacteria, parasites, and fungi.



HAVE YOU SEEN ME?

The Louisiana Department of Wildlife & Fisheries is looking for sightings of the EASTERN SPOTTED SKUNK.

Eastern Spotted Skunk

Spilogale putorius



Striped Skunk

Mephitis mephitis



© Sheri Amsel | www.exploringnature.org

FACTS

- Once common, the eastern spotted skunk is now rare in Louisiana.
- Spotted skunks eat mice, rats, and insects, helping to control their populations. As scavengers, they help clean up carrion from the woods.
- Please help us to better understand the status of the species in the state.
- Report any sightings from roadkill, game cameras or inadvertent catch from fur trapping. (The harvest of spotted skunks is allowed during fur trapping season).

WAYS TO REPORT

- Upload your observations to the Eastern Spotted Skunk Project at www.inaturalist.org/projects/eastern-spotted-skunk or use the iNaturalist smartphone app.
- Please report sightings to Jennifer Hogue-Manuel at 337-735-8674 or email sighting information and photographs with GPS latitude/longitude coordinates (enable location services for photos on your smartphone) to jhogue-manuel@wlf.la.gov.

for more information visit

WWW.WLF.LA.GOV/FACT-SHEET-ANIMAL/SPILOGALE-PUTORIUS

Because of the decline throughout their range, the eastern spotted skunk is considered vulnerable to extinction in the wild by the International Union for Conservation of Nature and the plains subspecies (*S.p. interrupta*) is currently under review by the USFWS for listing under the Endangered Species Act. In Louisiana, even though they are not currently afforded protections, they are considered a Species of Greatest Conservation Need in the Louisiana Wildlife Action Plan (www.wlf.la.gov/resources/category/wildlife-action-plans).

Despite the ongoing research on spotted skunks, there is still much that we don't know about them. The full extent of their current range is unknown which makes it difficult to assess their population status. With such a cryptic animal, it's important to have as many eyes as possible trying to locate it. This is where everyone can pitch in. The Louisiana Department of Wildlife and Fisheries has followed Alabama's lead and has developed a poster to advertise our search to the public. Already the posters have garnered more than 20 calls and emails with a few of the reports coming from department staff; however, none of the reports so far could be confirmed to be spotted skunks with photographic evidence. The project is ongoing with the ad again going out in department publications and appearing on our Facebook and Instagram pages. If spotted skunks are still living in Louisiana, hopefully someone has seen one in their yard, as roadkill, or caught one with a game camera. All of this can help in our search for the spotted skunk. Sightings can be reported to Jennifer Manuel at jhogue-manuel@wlf.la.gov or to the Spotted Skunk Cooperative Study Group website: <https://easternspottedskunk.weebly.com>

REFERENCES

Eastern Spotted Skunk Cooperative Study Group. 2019. Eastern Spotted Skunk Conservation Plan. <https://easternspottedskunk.weebly.com/>. Accessed September 2020.

Gompper, M. E. and H. M. Hackett. 2005. The long-term, range-wide decline of a once common carnivore: The Eastern Spotted Skunk (*Spilogale putorius*). *Animal Conservation* 8:195-201.

Leburg, P. and R. Davis. 2013. Assessment of population status and habitat use of the Eastern spotted skunk in Louisiana. Final Report for Louisiana State Wildlife Grant T-69.

Lowery, G. H. 1974. *The Mammals of Louisiana and its Adjacent Waters*. Louisiana State University Press, Baton Rouge, LA. 565 pp.



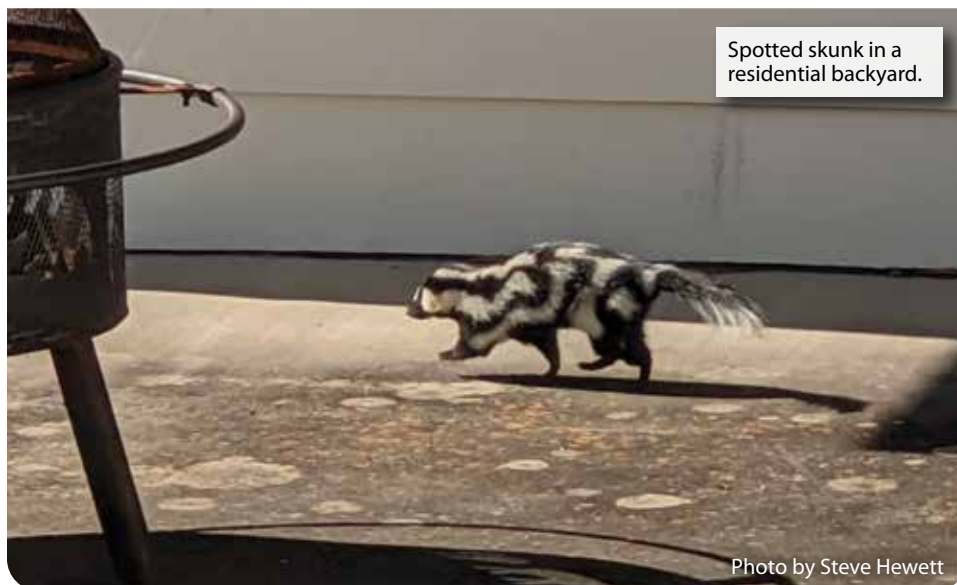
Trail camera picture taken during a deer study. The photo was taken at Canemount WMA in Claiborne County, MS, which borders Tensas Parish, Louisiana.

Photo courtesy of Mississippi Department of Wildlife, Fisheries and Parks



Photo of a striped skunk with an unusual color pattern submitted by a member of the public. Taken near Sunset, Louisiana

Photo by Judy Bardon



Spotted skunk in a residential backyard.

Photo by Steve Hewett

We Can't Manage or Protect What We Can't Identify

BY BRIAN SEAN EARLY, LDWF Botanist

Identification is the first step in prescribing sound land management and conservation practices. Proper identification of the biota and physical environment leads to a better understanding of ecosystem structure and function along with the range of natural dynamism that an ecosystem may handle.

One of the many crucial sets of identification needed to begin the process of land management and conservation is that of plant identification. In the case presented below there are two species which are often misidentified. However, once the plants are closely examined it is hard to confuse the two.

CHINESE PRIVET (*Ligustrum sinense*)

Chinese privet, as the common name implies, is from eastern Asia and is highly invasive. Whereas yaupon holly is native to southeastern North America. Although both species develop thickets, Chinese privet greatly reduces biodiversity by outcompeting other plants thereby reducing plant diversity which leads to reduced pollinator and vertebrate diversity. Some estimate that Chinese privet occupies over 2.47 million acres in the Southeastern U.S. with detrimental effects to biodiversity (Hanula et. al. 2009).

YAUPON HOLLY (*Ilex vomitoria*)

Contrary to Chinese privet, Yaupon holly has significant cultural importance to Native Americans, being the only native plant to contain caffeine. A black tea was made from boiling the leaves and used as a social drink and a ritual drink for ceremonies by many native America tribes in both North and South America. Additionally, Yaupon holly was important in early colonization tea trade. In England it was called yaupon tea, South-sea tea, and several other names. However, coffee out compete the yaupon tea, in both Europe and North America. Although yaupon tea or mate is still a favored delightful bitter tea in South America. Chinese privet may be mildly toxic and possibly allopathic (sometimes the bark is used as an antipyretic), while yaupon holly (*Ilex vomitoria*) despite the scientific misnomer is non-toxic nor does it cause vomiting. Misidentification of these two species as well as many other similarly looking species can have great implications on habitat quality assessment, management strategies, culture significance, and ecosystem health.

APPEARANCE/CHARACTERISTICS

- **FORM** of both species is generally similar as they take the shape of a shrub or small tree.
- **BARK** of both species are similar in being thin, tight, and light gray to brown
- **LEAVES** are similar in shape but have a different arrangement on the stem. Both plants have evergreen leaves.
- **FLOWERS** of both species are small with four white petals, emerging from axillary clusters in March to June
- **FRUITS** of both species are small, fleshy and round.

When managing land it is import to try to identify what is present. In some scenarios a simple comparison may not be enough, and landowners should seek assistance from others and/or literature as necessary. Without proper identifications, indicators of habitat quality, rarity, and general significance could be missed.

Photo by John Ruter, University of Georgia (forestryimages.org)



Yaupon Holly

Photo by Chuck Bargeron, University of Georgia (forestryimages.org)



Chinese Privet

LEAVES

Photo by Chris Evans, University of Illinois (forestryimages.org)



Yaupon Holly

Yaupon holly leaves alternate on the stem, and the leaves have bumpy rounded margins (crenate)

Photo by Karan A. Rawlins, University of Georgia (forestryimages.org)



Chinese Privet

Chinese privet leaves are opposite on the stem, and the leaves have smooth margins.

FLOWERS

Photo by John Ruter, University of Georgia (forestryimages.org)



Yaupon Holly

Yaupon holly flowers are arranged singly or in small fascicles close to the twig and have a faint but sweet fragrance.

Photo by John Tann, Wikimedia Commons



Chinese Privet

Chinese privet flowers are arranged as a panicle near the ends of axillary branches and have a pungent foul odor.

FRUITS



Yaupon Holly

Yaupon holly fruits are red, born close to the stem in tight clusters and ripen in fall persisting into winter.

Photo by James H. Miller, USDA Forest Service (forestryimages.org)



Chinese Privet

Chinese privet fruits are blue, born in loose panicles at the end of stems and ripen in summer persisting into the following spring

LITERATURE CITED

Hanula, J.L., Horn, S., Taylor, J.W. 2009. Chinese Privet (*Ligustrum sinense*) Removal and its Effect on Native Plant Communities of Riparian Forests. *Invasive Plant Science and Management* vol. 2: 292–300.

VOLUNTEER PROFILE



Mr. Joe Henderson

On May 5, 1998, Joe Henderson (aka Mr. Joe) became a hunter education volunteer instructor and has thoroughly enjoyed passing on his knowledge to the numerous people that he has come in contact with over the years. He teaches hunter education classroom courses and field days to the general public each year in LaSalle Parish. He also volunteers his time to teach hunter education at Jena Junior High School and Nebo Elementary to train school students during each school year. His favorite subjects to teach are outdoor survival and the live-fire/shooting exercises.

Mr. Joe goes that extra mile to ensure his students are able to practice hands on activities. One way he does this is by incorporating an aluminum boat (on dry land), set on inner tubes to simulate being on the water. Students use mock firearms to practice safely entering and exiting the boat under hunting conditions. He enjoys teaching firearm safety and knowing that he has caught someone's interest in shooting or hunting. Mr. Joe takes great pride in knowing that he has positively impacted so many people in making them more proficient and ethical sportsman.

Mr. Joe has assisted with the Northeast Louisiana National Hunting and Fishing Day event at the shotgun station and taught the public, of various ages, firearm safety and handling along with the proper shooting stance during these shooting exercises.

Annually, Mr. Joe attends and enjoys the Volunteer Hunter Education Instructor workshop at Camp Grant Walker in Pollock, La. He rarely misses the event.

His love in teaching young people the outdoors extends also into the 4-H shooting sports where he is an NRA shotgun instructor. Over the years he has dedicated countless hours in educating students to the best of his abilities. When asked why he teaches hunter education Mr. Joe states: "When I was growing up I did not have anybody to teach me and I do not want any child to grow up that wanted to learn and was not be able to because they did not have a teacher."

On April 2, 2015, Mr. Joe Henderson received the Todd Roberts Memorial Achievement Award from the Louisiana Department of Wildlife and Fisheries' Education Program. This achievement is awarded annually to the most outstanding volunteer that dedicates his life's work in educating and introducing any interested person to the great outdoors. We are fortunate and proud to have Mr. Joe as a hunter education volunteer instructor!



Bayou Pierre Wildlife Management Area

BY JEFF JOHNSON, LDWF Minden
Region Manager

Bayou Pierre Wildlife Management Area (BPWMA) is located in Desoto and Red River Parishes, approximately 15 miles south-south-east of Shreveport, Louisiana. BPWMA was established in 1992, following the original acquisition of 214 acres via title transfer from the USDA Farmers Home Administration (FHA). Additional acquisitions in 1993, 1998, 1999, and 2011 have increased the acreage to the current 2,799 acres. The land that makes up BPWMA is contiguous except for one isolated 40-acre tract.

Located in the Red River Alluvial Valley, BPWMA has relatively flat terrain. Predominantly poorly drained soil, the area is subject to period-



Bayou Pierre Steel Tract impoundment.

ic annual flooding as Bayou Pierre bisects the WMA. BPWMA has drainages, wet weather ponds, sloughs, reforested areas, grasslands, and wildlife openings, creating habitat favorable for a diverse wildlife community.

During the mid-1900s, farmers cleared the area's bottomland hardwood forest and established drainages across the area. After several failed farming attempts and forfeiture by the owners, the property was deeded to LDWF by the FHA. Additional acquisitions and subsequent reforestation efforts were conducted to restore much of the property to bottomland hardwood forest. Additional restoration activities have occurred to restore the altered hydrology on portions of the WMA and to provide managed moist soil impoundments for waterfowl and shorebirds.

Lower elevation portions of the WMA typically flood on an annual basis. However, flooding of the majority of the WMA occurs

less frequently. Flooding is seldom of long enough duration to have any long-term negative impact to the wildlife species on the area.

BPWMA is one of only a few publicly owned tracts in the northern Louisiana portion of the Red River Alluvial Valley, providing important habitat for migrating and wintering waterfowl. It also provides habitat for resident game species, and tremendous outdoor recreation opportunities for the public in an area of the state that has somewhat limited public land availability.

There are multiple public access roads to BPWMA. The WMA may be accessed from LA 1 in the east via Yearwood Road and Lacoupe Road; from LA 509 to the south via Red Lick Road, George Small Road, and Lacoupe Road; and from LA 175 to the north and west via New Friendship Road, George Small Road (via Ivory Lane), and Lacoupe Road. Further access into the east

side of BPWMA is provided by Clinton Road. Internal access by ATV/UTV is limited to one year-round ATV/UTV trail on the Desoto Parish side of the WMA. There is an access road that leads to the waterfowl refuge, but it is closed to routine public access other than by bicycle or on foot.

Deer hunting is the most popular activity on BPWMA. The WMA deer season is archery only. Self-clearing permit data indicate an average deer harvest over the past five years of 19 deer per year. Hunting pressure is generally fairly low, as indicated by our most recent five-year average of just over 400 hunting efforts per year. While deer harvest data is limited to what is gathered via self-clearing permits on BPWMA, biologists monitor the herd-to-habitat balance by performing browse surveys on a three-year cycle.

Although harvest per effort is not exceptionally high, archery hunters that fre-

quent BPWMA reveal that they see deer on a regular basis, and often have opportunities to harvest deer that they choose to pass. While the primary access for hunters across the WMA is via walking, retrieval of deer and hogs with an ATV is allowed, per the guidelines in the WMA regulations.

Dove hunting is a popular early season activity on BPWMA. Approximately 75 acres of open field habitat are maintained on the WMA along the southern part of Clinton Road. An average of 30 acres of brown top millet is planted in strips throughout the open field area. The planted areas are manipulated prior to the opening of dove season in an effort to attract doves for hunters.

Although they have less participation, squirrel and rabbit hunting opportunities are available on the WMA. Rabbit habitat was extensive after reforestation efforts during the early development of BPWMA. Due to areas of unplanted natural vegetation, intermixed with reforested areas and maintained openings, there is still some good rabbit habitat available on the WMA. As the reforested areas continue to mature, and mast production increases, squirrel habitat has improved and is expected to continue to improve over time.

Woodcock are also found on BPWMA each winter. The reforested stands, combined with areas of natural cover and maintained openings, provides the variety of habitat that wintering woodcock need. While seldom hunted on BPWMA, it is the best location in northwest LA for LDWF personnel to conduct woodcock banding activities each winter.

Waterfowl habitat on BPWMA consists of a managed refuge impoundment and the passively managed Desoto Tract and Steel Tract impoundments. The Waterfowl Refuge is a 136-acre shallow impoundment that is approximately 1/3 flooded woodland and 2/3 flooded opening consisting of annual herbaceous plants. The Desoto Tract impoundments consist of a moist soil impoundment, approximately 36 acres when filled to capacity, as well as sloughs and potholes that are scattered across the tract. The Steel Tract has a 7-acre moist soil impoundment created in 2018. Though small, it was constructed in a location where the topography made for relatively easy and low cost impoundment construction, providing increased waterfowl habitat diversity. In addition to providing wintering habitat for waterfowl, the impoundments also provide vital habitat for wading birds.

The only waterfowl hunting allowed on BPWMA is on the Desoto tract via lottery draw. There are two youth lottery hunts and three general lottery hunts. There is also a Physically Challenged Hunter Permit (PCHP) wheelchair bound waterfowl blind that can be reserved by eligible PCHP hunters for the same weekends as the general lottery hunts. All lottery hunts are self-guided. The remainder of the WMA is closed to waterfowl hunting. The waterfowl Refuge is closed to all hunting except for archery deer hunting. This decreases disturbance to waterfowl using the refuge.



Dove field strip cut.



Waterfowl at the refuge impoundment.

For questions about
Bayou Pierre Wildlife
Management Area,
please contact the
Minden Field Office at
318-371-3050



Woodcock banding
at Bayou Pierre.

WMA Recreational Opportunities

WMA	Primary Game										Access/Special Hunts				
	Deer	Dove	Quail	Rabbit	Raccoon	Squirrel	Turkey	Waterfowl	Woodcock	Fishing	Trapping	General Lottery Hunts	Youth Lottery Hunts	Physically Challenged Hunting Area	Physically Challenged Lottery Hunts
Acadiana Conservation Corridor	🐅									🎣					
Alexander State Forest	🐅		🐓	🐇		🐿		🦆	🐔	🎣			●		●
Atchafalaya Delta	🐅			🐇		🐿		🦆	🐔	🎣	Alligator	●			●
Attakapas	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					●
Bayou Macon	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	●				●
Bayou Pierre	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●			
Big Colewa Bayou	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣			●		
Big Lake	🐅		🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				
Biloxi	🐅			🐇		🐿		🦆	🐔	🎣					●
Bodcau	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣					●
Boeuf	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				●
Buckhorn	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator	●	●		
Camp Beauregard	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣				●	
Clear Creek	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●	●		●
Dewey W. Wills	🐅			🐇	🐾	🐿		🦆	🐔	🎣	●	●	●		●
Elbow Slough		🐦		🐇							●				
Elm Hall	🐅			🐇	🐾	🐿		🦆		🎣	Alligator				●
Floy Ward McElroy	🐅			🐇		🐿		🦆	🐔	🎣		●	●	●	
Fort Polk -Vernon	🐅	🐦	🐓	🐇		🐿	🦃	🦆	🐔	🎣		●	●		
Grassy Lake	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator	●			●
Hutchinson Creek	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					
J.C. Sonny Gilbert	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●			●
Joyce	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				●
Lake Boeuf	🐅			🐇		🐿		🦆	🐔	🎣	Alligator				
Lake Ramsay	🐅	🐦	🐓	🐇		🐿	🦃	🦆	🐔	🎣					
Little River	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣					●
Loggy Bayou	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣					●
Manchac	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				
Marsh Bayou	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					
Maurepas Swamp	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				●
Pass-A-Loutre	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				●
Pearl River	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●			●
Peason Ridge	🐅		🐓	🐇		🐿	🦃	🦆	🐔	🎣		●			
Pointe-aux-Chenes	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator	●			●
Pomme De Terre	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣		●			●
Richard K. Yancey	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator	●			●
Russell Sage	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator		●		●
Sabine	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣	●		●	●	●
Sabine Island	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					
Salvador/Timken	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator				
Sandy Hollow	🐅	🐦	🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣		●	●		●
Sherburne	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●	●	●	●
Soda Lake	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					
Spring Bayou	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	Alligator	●			●
Tangipahoa Parish School Board	🐅		🐓	🐇	🐾	🐿	🦃	🦆	🐔	🎣					
Thistlethwaite	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					
Tunica Hills	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●			●
Walnut Hill	🐅			🐇	🐾	🐿	🦃	🦆	🐔	🎣					
West Bay	🐅	🐦		🐇	🐾	🐿	🦃	🦆	🐔	🎣	●	●			●

***Check hunting regulations for more specific rules/regulations, limits and hours regarding hunting and fishing on wildlife management areas.

FEATURED BIOLOGISTS



Paul Link

North American Waterfowl Management Plan Coordinator

Paul is from Washburn, ND, a small farm, ranch, and coal community in central ND. Growing up along the Missouri River and the Missouri Coteau, home of the highest density of breeding dabbling ducks in North America, waterfowl had a profound effect on his life from an early age. He and his father spent most free daylight hours hunting, fishing, and scouting for the next good spot. He regularly accompanied the local game warden on biological monitoring trips, and goose banding roundups and duck banding trips solidified his career goal at a very early age.

After high school Paul went to Dakota College at Bottineau (then called Minot State University-Bottineau) for an associate's degree in Wildlife Technology, South Dakota State University for a bachelor's degree in Wildlife and Fisheries Sciences, and Louisiana State University for a master's degree in Wildlife and Fisheries Sciences. During the summers of his college years he worked on a variety of waterfowl habitat and research projects for Ducks Unlimited, Delta Waterfowl, ND Game and Fish Department, Central Flyway Council, Northern Prairie Wildlife Research Center, and the Lostwood Wetland Management District. These projects took him across three of the four North American Flyways in the US, Canada, and Mexico. His graduate work focused on hen mallard survival, habitat use, and movements in southwestern LA. He and his technicians trapped mallards, outfitted hens with VHF transmitters, then followed them around with trucks, boats, and airplanes day and night until the last one departed LA in the spring.

After finishing his graduate work Paul went to work for Ducks Unlimited in the Central Valley of CA where he developed wetland restoration, enhancement, and creation projects on public and private lands. A year

later he was hired by LDWF as their North American Waterfowl Management Plan Coordinator, a position he's now held for 13 years. His primary job responsibilities are again developing wetland restoration, enhancement, and creation projects on public and private lands, developing and implementing waterfowl habitat management plans to improve habitats for waterfowl, serving on a multitude of Flyway committees, waterfowl working groups, and joint ventures, and a variety of other waterfowl and wetland duties and responsibilities as assigned. Paul's affinity for devising means for capturing feathered critters has earned him much stature in the waterfowl and wetland bird arena, as his expertise is sought by many researchers that must have "hands-on birds" in their research projects.

Paul resides in Baton Rouge with his two Labrador retrievers. When he's not working, he enjoys hunting, fishing, competitive shooting sports, banding ducks, and a myriad of hobby science projects.

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, and cover.

***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



Ruth Elsey

LDWF Biologist Manager

Ruth M. Elsey came to her career with LDWF by sort of a non-traditional route. While working on her B.S. in Zoology from Louisiana State University with plans to attend medical school, she serendipitously took a one-hour credit summer research course in zoology in 1981 – having heard it would be easy to earn an “A” grade to maintain a high GPA. She fully expected to be working with rats or rabbits in the physiology professor’s lab, but the project required Ruth to travel every few weeks to Rockefeller Wildlife Refuge in Grand Chenier to collect blood samples from juvenile alligators. Ruth found she really enjoyed being involved in research, and continued with additional alligator studies her senior year at LSU. She briefly considered pursuing a Ph.D., but was accepted to medical school and was wisely advised that an MD degree would open more doors for future employment than a Ph.D. in zoology. During medical school at LSU School of Medicine in New Orleans, Ruth was hired by LDWF as a student employee at Rockefeller Refuge. This allowed her a great opportunity to experience a variety of field work, in addition to the lab-based physiology research she’d previously conducted. During her medical training (internship, residency in internal medicine, and fellowship in nephrology) Ruth kept her hand in the alligator field work and research projects. As good fortune would have it, just as she completed her nephrology fellowship in Galveston, a job opening was available at Rockefeller Refuge in LDWF’s Alligator Research and Management Section. Ruth then joined LDWF full-time in July 1991 as a Project Coordinator and has worked there ever since, becoming a Biologist Supervisor in 1996, and a Biologist Manager in 2004.

Ruth is responsible for many aspects of the alligator farming program (licensing, permits, inventory control, coordinating farm-releases to the wild, hide inspections, etc.), and assists with duties related to the wild harvest, nuisance alligator program, and research program. Her research primarily involves the ecology, physiology, and management of American alligators. She has also published studies on fur-bearers, waterfowl, feral pigs, turtles, and skinks. Her many peer-reviewed publications (over 200 papers, about 150 abstracts, and several book chapters) bring recognition to the agency and reinforce LDWF’s internationally renowned reputation as a leader in crocodylian research. She is a member of the IUCN’s Crocodile Specialist Group, for which she serves as the regional co-chair for North America.

Ruth enjoys working with researchers studying alligators or other crocodylians, and often reviews manuscripts written by other biologists for possible publication in scientific journals, in addition to publishing findings of studies conducted by LDWF alligator program staff. She appreciates the variety of projects in which she has been able to participate at Rockefeller Refuge with co-workers in other programs, such as banding waterfowl, seining aquaculture ponds for striped bass, marsh management activities, etc.

In her free time, Ruth appreciates the “Sportsman’s Paradise” of Louisiana, and likes hunting deer, ducks, and squirrels, as well as hiking and wildlife photography. She is one of 10 siblings, spread across seven different states, but enjoys time together with their families and friends when the opportunity arises.

JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Growing season prescribe burn. Invasive plant control.		Invasive plant control. Bush-hog/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 during the year as needed using clearcuts, shelterwood, group selection.		Bush-hog to a height of 12-18 inches and/or burn openings managed for nocturnal habitat.		

and summer bedding cover for deer, etc.

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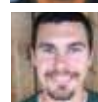
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HABITAT IS THE POINT



Desirable wildlife habitat was created by thinning this hardwood stand.

RAWA

Recovering America's Wildlife Act

Louisiana Department of Wildlife & Fisheries' Plan for Utilizing Funds

RAWA Funding

RAWA would provide approximately \$16 million to Louisiana annually. These funds are proactive and intended to keep species off the Endangered Species Act (ESA) List

There are 27 species occurring in Louisiana that have been petitioned for federal listing. Funds can be used to conduct surveys and research projects to address data gaps to prevent listing

- *EXAMPLE:* Recent research by LDWF into the status of the frecklebelly madtom, a small catfish, revealed that population numbers were higher than anticipated. This new data kept this fish species from being listed.

Funds could also be used:

- to partner with DOTD to build wildlife corridors.
- for land acquisition with focal areas near wildlife management areas and Conservation Opportunity Areas.



Threatened & Endangered Species

Louisiana currently has 23 species that are listed as federally threatened or endangered.

LDWF plans to spend at least \$12 million over five years on projects aimed at delisting Federally Threatened and Endangered Species. We would prioritize species such as:

- Louisiana pearlshell
- Louisiana pinesnake

Species of Greatest Conservation Need

Louisiana has 362 Species of Greatest Conservation Need, these funds would be used to accelerate recovery by addressing critical data gaps to determine how best to manage species and their habitats, reduce key threats and promote population increases



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