

LSU AgCenter Sponsors Upcoming Wildlife Programs

July 21, 2007. A joint LSU AgCenter/Quality Deer Management Association educational program will be held at the Riley Theater on the LSU campus. Topics include the effects of weather and moon phase on buck movements; selectivity and timing of antlerless harvests; the use of satellite scouting in tracking buck movements during the rut; the future of deer hunting and management; and an update on the LSU AgCenter white-tailed deer telemetry study. To register call 1-800-209-3337.

August 9, 2007. The LSU AgCenter along with the La. Department of Wildlife and Fisheries will conduct a wildlife program at the Diamond W Ranch near Welsh, La. Topics will include the establishment and management of food plots for attracting doves, legal issues to consider in attracting doves with food plots, establishment of fall food plots for deer, managing native habitat for white-tailed deer and harvest strategies in managing a deer herd. Registration information will be forthcoming from the Jeff Davis and Calcasieu Parish extension offices.

August 14, 2007. The LSU AgCenter along with the La. Department of Wildlife and Fisheries will conduct a mourning dove field day in Lafayette Parish, north of Lafayette, La. off of Dugas Road. Topics will include the status of the mourning dove in Louisiana, the establishment and management of food plots for attracting doves, legal issues to consider in attracting doves with food plots and assistance programs available for landowners to establish wildlife habitat for attracting doves and bobwhite quail. Registration information will be forthcoming from the Lafayette Parish extension office.

Web site Available With Information on Nuisance Wildlife

An excellent Web site is available where individuals can learn about nuisance wildlife issues in Louisiana and across the Southeast. The concept known as e-Extension provides this educational information from land-grant universities across the United States. Information on a variety of wildlife includes a description of the species, a description of the damage caused and control measures on how to deal with the problem. The site can be accessed by going to www.extension.org and following the link to wildlife damage management.

Louisiana's Neighbor Remains Unchanged on Baiting Issue

Many Louisiana hunters purchase nonresident licenses to hunt in Mississippi. The use of corn or other baits to attract deer for purposes of hunting is legal in Louisiana but not in Mississippi. Every year the issue is hotly debated, and proponents of the baiting controversy felt they had finally won the battle. Legislation that would allow hunters to put out bait to attract and kill deer ultimately died, however, after House and Senate negotiators could not reach a compromise. The House had voted earlier for a 30-county pilot project allowing hunting over grain through 2010. The motion failed when Senate legislation placed the entire issue of baiting in the hands of the Mississippi Department of Wildlife, Fisheries and Parks. State wildlife officials have said they didn't request the legislation and that the legalization of hunting over grain will not help manage the state's deer herd.

Aquatic Wildlife Habitat Benefits From Legislation

The Louisiana legislature passed house bill 159 that extends without sunset the \$3.25 additional annual fee on boat trailer registration. The fee is assessed on a 4-year registration renewal basis and is dedicated to the Aquatic Plant Control Fund. Eighty-five percent of funds collected are allocated to the Louisiana Department of Wildlife and Fisheries for nuisance aquatic weed control, and 15 percent goes toward research work in determining control measures for dealing with invasive aquatic weeds. The LSU AgCenter has been the lead agency in much of this research work that would not be possible without this sustained funding source.

Research to Provide Insight in Antlerless Bucks

The LSU AgCenter successfully completed a research project in which epididymal semen was collected from hunter-harvested adult bucks that had acquired the defective trait of not being able to grow antlers. Sperm cells from these animals were frozen to be used at a later date to inseminate females from various penned areas. Once inseminated and fawned, the progeny of these antlerless males should provide insight as to whether genetic or environmental factors are the cause for these males not producing antlers. Post-thaw stress tests conducted on the collected sperm indicated that samples have remained in a condition in which these frozen units of semen can be used for artificial insemination of does in the future. The protocol for this successful project was developed jointly by researchers at the LSU Bob R. Jones Idlewild Research Station, the Embryo Biotechnology Laboratory in the LSU AgCenter and the Louisiana Department of Wildlife and Fisheries.

Plant Species Profile: American Chestnut (*Castanea dentata*)



Historically, the American chestnut was one of the most important trees throughout much of the eastern United States. It was so abundant that estimates had it occurring once on average for every four oaks, maples or other hardwoods. Mature forests contained American chestnut trees up to 5 feet in diameter and 100 feet tall. Specimens as large as 8 to 10 feet in diameter were recorded, making the tree known as the “Redwood of the East.” The tree grew straight and branch-free for 50 feet or more, making it one of the most valuable timber species of the time. The wood was straight-grained, lightweight and more easily worked than oak. It had a wide variety of uses, including the lumber of choice for log cabins of the era because of its decay resistance.

Much of the glory regarding the American chestnut is unfortunately a thing of the past due to the tree’s susceptibility to a blight caused by an Asian bark fungus. This disease was accidentally introduced to America on imported Asiatic chestnut trees, first noticed on trees in the Bronx Zoo in 1904. It’s hard to image a more tragic ecological disaster than what occurred over the next few decades when this airborne fungus spread 50 miles a year and within a short time had girdled and killed billions of American chestnuts. Currently, the tree hangs on because of its aggressive sprouting characteristics that allow new shoots to spring up from the roots of dying trees. These shoots are short-lived, however, and long before reaching seed-bearing age, they are killed back by the same lethal fungus. The blight-resistant Chinese chestnut is the most commonly planted chestnut in Louisiana and over much of the former range of the American chestnut. The American chestnut can be distinguished from all imported chestnuts by the absence of hairs on the leaf undersurface.

Another loss, equal to that of the tree itself, occurred when mature trees of seed-bearing age were killed. Wildlife, including deer, bear, turkeys and squirrels were deprived of their most dependable food supply over millions of forested acres. The loss was devastating to these and other species since the tree produced millions of nuts over hundreds of thousands of square miles across the eastern United States. Mature American chestnuts reportedly produced more than 6,000 nuts per tree, compared to the average production of 1,000 and 2,000 nuts per tree for white and red oaks, respectively. The nuts were more nutritious (7 percent protein content vs. 6 percent for oak acorns) and more palatable than acorns, due to lower tannin levels. American chestnuts could also be described as “Mr. Dependability” in regard to their mast production. Late spring frosts are known to cause failures to white oak acorn crops whose acorns mature in one growing season. These same conditions in consecutive years can cause total mast failures by the destruction of red oak flowers with their two-year maturity period. American chestnuts avoided these conditions by flowering in late June and early July, well past any chances of a killing frost. As an added safety measure for wildlife, American chestnuts were a much more dependable mast producer, usually with a crop every year. Oak and beech mast, however, can produce good crops one year and then go several years with no production. When the mature chestnuts disappeared, oaks moved in on large parts of their former range. Wildlife was able to adapt to this less dependable food source but certainly at a cost in productivity.

A bright spot in the future of the American chestnut can be found in the work being done by conservation organizations working to bring the tree back to its former greatness. Early attempts were made to produce a blight-resistant American chestnut by crossing this species with blight resistant Chinese chestnuts. These early attempts met with failure since the trees had not only the disease resistance but also the appearance of the Chinese chestnut. Recent research in backcrossing American and Chinese chestnuts have yielded trees that are 15/16 American and 1/16 Chinese. These trees have all the physical and growth characteristics of the American chestnut yet retain the disease resistance of the Chinese chestnut. To maintain genetic diversity, trees from various localities across the native ranges of both American and Chinese chestnuts are being used. The disease-resistant American chestnut seedlings are expected to be available to the general public for planting around 2010. Even though Louisiana is outside the general range of the American chestnut, isolated trees do occur scattered throughout our state. Unfortunately, these trees also suffer from the same blight conditions as their eastern counterparts.

Wildlife Species Profile: Passenger Pigeon (*Ectopistes migratorius*)



It's hard to image that the passenger pigeon, once thought to be the most numerous bird on Earth (5 billion individuals) and totaling more than 40 percent of the total number of all birds in North America, is now extinct.

Flocks moving across the eastern United States were estimated to be a mile or more wide and more than 300 miles long. Densities were so great within these masses, they darkened the sky for hours as the birds passed overhead.

The passenger pigeon was similar to but slightly larger than the mourning dove with a blue head and rump. The back was slate gray and the breast was rosy red. The eyes were scarlet, and the short, slender, black bill was ideally suited for a diet of acorns, beechnuts and chestnuts. The long, slender wings and pointed 8- to 9-inch tail allowed the passenger pigeon to be extremely adept at flight, capable of speeds in excess of 60 miles per hour.

As with mourning doves, passenger pigeons constructed flimsy nests in which typically one egg was laid and incubated by both parents. When hatched, both parents tended the chick, and after approximately two weeks, the young were abandoned, while still unable to fly. Entire adult flocks would depart the breeding area, leaving chicks to drop to the ground, where they remained until attaining flight after another two weeks.

Passenger pigeons became extinct partly because the immense nesting and roosting colonies that made up their life cycle was ideally suited for exploitation by individuals in an era when game laws and regulated harvest was nonexistent. Nesting colonies could cover up to 850 square miles of forest with more than 100 nests found in a single tree. Market hunters could never satisfy the demand for pigeon meat in large eastern cities, allowing the slaughter to continue at a rate from which the birds could not recover.

Oddly enough, because of the numbers in which the birds occurred, not even the astute birder John James Audubon realized what the future held for the passenger pigeon. While in Louisiana in 1826, Audubon indicated that the bird was as numerous as he had ever seen them. By the turn of the century, however, the last known passenger pigeon in the wild was killed in Ohio. Several individuals remained in captivity but as with all species leading up to their extinction, a precipice is reached that cannot be overcome.

In the case of the passenger pigeon, some believe that the nature of the bird required the presence of tremendous flocks of thousands of individuals, and survival was not possible when numbers dropped below a certain critical level. Whatever the reason, the last passenger pigeon, a female named Martha, died on September 1, 1914 at 1:00 p.m. in the Cincinnati Ohio zoo. This is likely one of the few times that the exact date and time of the extinction of a species has been recorded.

Critter Corner: Poisonous Snakes

Poisonous snakes are treated as a group since their presence in an area is often the result of similar habitats, and methods to reduce their numbers are often similar. Approximately 40 different species of snakes are found in



Louisiana, but only six are poisonous. Identification is often the biggest problem when dealing with snakes, and for this reason many nonpoisonous species are mistaken for those that are poisonous. Of our six poisonous species, five are classified as pit vipers (cottonmouth, copperhead, pygmy rattlesnake, timber rattlesnake and eastern diamondback rattlesnake) with distinct characteristics. The loreal pit is an opening found between the eye and nostril of all pit vipers. This structure is used for heat sensing, allowing pit vipers to judge the size and distance of objects. A unique feature can be used to identify if a snake is one of our poisonous pit vipers, based on how the scales are arranged on the underside of the tail. All pit vipers have tail scales on their underside arranged in a single row, and nonpoisonous snakes have a dividing line with two rows of scales. This feature has proven exceptionally useful in identifying the many "headless" snakes that homeowners send over for identification.

Our only poisonous snake not classified as a pit viper is the colorful coral snake. An easy way to remember the color pattern that distinguishes this snake from the nonpoisonous mimics is by the old rhyme, "Black on yellow, killer fellow; red on black, friendly Jack." When the black bands contact the yellow bands on the snake's body, the snake is the poisonous coral snake. When the black bands contact red bands, the snake is either the harmless scarlet king snake or milk snake. The color patterns on all other snakes tend to differ greatly with age and habitat, making the use of field guides essential for identification.

Precaution is the biggest factor to consider when going into the outdoors and trying to avoid problems with snakes. Most bites in our state and throughout the nation occur when individuals handle snakes. Although this would occur only in a bad dream for most folks, the careless step taken without looking and the careless placement of hands in areas that cannot be seen have resulted in individuals being bitten. The actual bite of a poisonous snake does not necessarily mean that poison will be injected in the wound. The discharge of venom is a voluntary response, which means that when striking, a poisonous snake may deliver a "dry bite" in which no venom is injected. Approximately one in five bites to humans falls in this category. Bites from pit vipers are hemorrhagic in nature, breaking down the victim's vascular tissue. Severe pain and swelling are indications that venom has been injected from a pit viper. The venom from coral snakes is neurotoxic and affects the central nervous system. In these bites, there may be very little pain or swelling, but, without treatment, the loss of involuntary muscles that control breathing and heartbeat can develop. Individuals vary in their susceptibility to venomous snake bites just as they do from susceptibility to bee stings. In any case, where a bite from a poisonous snake has occurred, medical attention should be sought as quickly as possible and the bitten body part immobilized. Additional treatment steps for pit viper bites include applying a constricting band above the bite area, if medical attention is less than 20 minutes away. This band should never be so tight as to cut off circulation to the bitten body part. If medical attention is more than 20 minutes away and the bite is less than 10 minutes old, small incisions (3/8 inch long and 1/8 inch deep) may be made just above the bite. Fluid may be sucked from the bite and incision, but never orally if open sores are present on or in the mouth.

Control methods. No chemicals are labeled for the lethal control of snakes, and those marketed as repellents have drawbacks in regard to length of effectiveness and species controlled. Snakes found inside houses or other buildings can be removed by the placement of glue boards around the perimeter of the room where they have been spotted. The No. 1 method to deter snakes is by habitat manipulation. Yards kept free of low spots that hold water, along with weeds and tall grass will be much less likely to attract snakes for food and shelter. Simple routine yard maintenance will do more to rid an area of snakes than anything else.

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