

NATURAL AREAS REGISTRY UPDATE

By Judy Jones

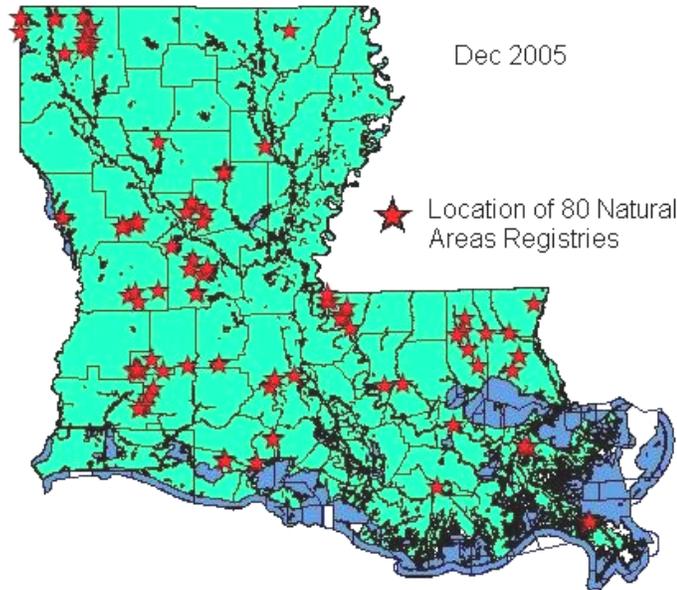
I would like to congratulate and acknowledge our Natural Areas Registry members for protecting their natural areas for future generations. The combined efforts of concerned citizens like Natural Areas Registry members and the LNHP are helping to conserve what is left of Louisiana's natural areas. It has been my pleasure to speak to and meet many of the wonderful landowners in our program. I am looking forward to working with all of you next year and I hope that 2006 brings you happiness and prosperity. 2005 was a good year for making new contacts with interested landowners. Eleven landowners have registered approximately 1,973-acres of property in five parishes. We now have 80 Natural Areas Registries with 35,539 acres in 26

We are acknowledging one new Natural Area, Restful Retreat Natural Area, this quarter. We contacted Cyndy Hughes about registering her property and she was delighted. **Restful Retreat Natural Area** is a 6.48-acre Southern Mesophytic Hardwood Forest located in the Tunica Hills of West Feliciana Parish. This habitat develops on deep, fertile, loessial deposits that have eroded over thousands of years to form a characteristic highly-dissected landscape of high, narrow ridges, steep slopes, and deep ravines that usually have intermittent to permanent streams. These dissected hills



have sustained localized populations of some Appalachian species, primarily herbaceous, thought to have originally migrated south ahead of advancing glaciers in the past ice-age. Pictured above is Strawberry Bush in fruit during late September (Hilton Pond Center). Currently, there are nineteen rare plant species and ten rare animal species that are known to occur in the Tunica Hills.

Unfortunately, many of our members experienced damage to their natural areas and homes this year. Many members are still coping with cleanup, repair, and/or rebuilding like Roy Wood of Tar Kiln Natural Area. Roy needed reforestation advice



parishes (See map). One of our Natural Areas Registry goals is to work with registry members towards permanent protection. Presently, four registry members are working towards permanent protection and one has attained permanent protection this year.

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after Hurricane Katrina destroyed most of his longleaf pine forest in St. Tammany Parish. Cody Cedotal with the Forest Stewardship Program, Patti Faulkner, and I walked with Roy through what remained of his forest. Cody recommended that Roy would benefit from registering in the Forest Stewardship Program because it provides

assistance to revise his present forest management plan for longleaf pine forest restoration. Additionally, the Wildlife Habitat Incentive Program (WHIP) can provide cost share funds for prescribed burning. See below for benefits of the Forest Stewardship Program.

FOREST STEWARDSHIP PROGRAM

by Cody Cedotal, Forest Stewardship Biologist

Have you ever known exactly what you wanted for your property, but were unsure how to achieve your goals? If this is the case, then you may be able to attain assistance through the Forest Stewardship Program (FSP). The Forest Stewardship Program offers the non-industrial private forest landowner a cost free means of obtaining technical assistance and management advice. Landowners must first establish a list of objectives for their property. Examples of objectives include timber production, wildlife habitat enhancement, forest recreation enhancement, aesthetics, and environmental enhancement. Many landowners want to manage their property for timber production while at the same time, enhancing the area for white-tailed deer and/or Eastern Wild Turkey. These two objectives are common among Forest Stewardship landowners. Other landowners prefer to manage their property to enhance recreational opportunity in the form of bird watching, wildlife observation, or hiking.

Once objectives have been established, a site inspection is necessary to assess the current conditions found on the property. Many different agencies participate in FSP to provide quality assistance to landowners. Representatives from the Louisiana Department of Wildlife and Fisheries, the Louisiana Department of Agriculture and Forestry, and Natural Resource Conservation Service may all be present at the site inspection of your property. After discussion with the landowner about objectives and a detailed site evaluation, a written management plan is then developed by one or more of the resource professionals involved with the property. The multiple-use management plan will cover a ten

year period and is designed to assist the landowner providing specific management recommendations on how to accomplish his or her stated objectives.

Management plan development is the first step towards certification as a Forest Stewardship Landowner. Through certification, a landowner receives recognition among peers and resource professionals for properly managing his or her property. During the certification process, an inspection team of resource professionals is assembled and the property is reviewed to ensure that all management activities were conducted in an appropriate manner, conducive to proper forest stewardship. After certification, the landowner will receive a sign to display on the property and a laser-engraved plaque, recognizing that he or she is an active member in the Forest Stewardship Program. Properties will need to have revised management plans written and re-certification once ten years have elapsed.

There are other benefits associated with the Forest Stewardship Program. Participating landowners receive a free subscription to the FSP Newsletter which addresses topics relevant to land management in Louisiana. Landowners participating in FSP are also eligible to receive assistance in deer management under the Landowner Antlerless Deer Tag Program (LADT). Additionally, the resource professionals involved in FSP can also provide information on other assistance and cost-share programs that your property may qualify for such as the Forestry Productivity Program (FPP), Conservation Reserve Program (CRP), Wetland Reserve Program (WRP), Wildlife Habitat Incentives Program (WHIP), and the Forest Lands Enhancement Program (FLEP).

These programs are designed to provide cost-share assistance to landowners when conducting management practices on their property.

For more information on the Forest Stewardship Program, contact Mike Thomas, *FSP Coordinator*,

Louisiana Department of Agriculture and Forestry at (225) 925-4500 or Cody Cedotal, *FSP Biologist*, Louisiana Department of Wildlife and Fisheries at (225) 765-2354.

WILDLIFE HABITAT INCENTIVES PROGRAM

September 2004

OVERVIEW

The Wildlife Habitat Incentives Program (WHIP) is a voluntary program that encourages creation of high quality wildlife habitats that support wildlife populations of National, State, Tribal, and local significance. Through WHIP, the Natural Resources Conservation Service (NRCS) provides technical and financial assistance to landowners and others to develop upland, wetland, riparian, and aquatic habitat areas on their property. WHIP is reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill). Through WHIP, NRCS works with private landowners and operators; conservation districts; and Federal, State, and Tribal agencies to develop wildlife habitat on their property. Funding for WHIP comes from the Commodity Credit Corporation.

BENEFITS

Since WHIP began in 1998, nearly 14,700 participants have enrolled more than 2.3 million acres into the program. Most efforts have concentrated on improving upland wildlife habitat, such as native prairie, but there is an increasing emphasis on improving riparian and aquatic areas. The 2002 Farm Bill greatly expands the available tools for improving wildlife habitat conditions across the Nation.

Species that have benefited from WHIP activities include the grasshopper sparrow, bobwhite quail, swift fox, short-eared owl, Karner-blue butterfly, gopher tortoise, Louisiana black bear, Eastern collared lizard, Bachman's sparrow, ovenbird, acorn woodpecker, greater sage grouse, and salmon.

HOW WHIP WORKS

The State Technical Committee advises the State Conservationist in the development of a State WHIP plan. The State WHIP plan serves as a guide

for the development of the State WHIP ranking criteria.

Persons interested in entering into a cost-share agreement with the U.S. Department of Agriculture (USDA) to develop wildlife habitat may file an application at any time. Participants voluntarily limit future use of the land for a period of time, but retain private ownership.

NRCS works with the participant to develop a wildlife habitat development plan. This plan becomes the basis of the cost-share agreement between NRCS and the participant. NRCS provides cost-share payments to landowners under these agreements that are usually 5 to 10 years in duration, depending upon the practices to be installed.

There are shorter-term agreements to install practices that are needed to meet wildlife emergencies, as approved by the NRCS State Conservationist. NRCS also provides greater cost-share assistance to landowners who enter into agreements of 15 years or more for practices on essential plant and animal habitat. NRCS can use up to 15 percent of its available WHIP funds for this purpose.

NRCS does not place limits on the number of acres that can be enrolled in the program or the amount of payment made; however, some States may choose to establish such requirements. NRCS welcomes projects that provide valuable wildlife habitat and does not want to discourage any landowner who desires to implement practices that will improve habitat conditions for declining species.

NRCS continues to provide assistance to landowners after completion of habitat development activities. This assistance may be in

the form of monitoring habitat practices, reviewing management guidelines, or providing basic biological and engineering advice on how to achieve optimum results for targeted species.

Applications are accepted through a continuous sign-up process. Applications may be obtained and filed at any time with your local USDA Service Center or conservation district office. Applications also may be obtained through USDA's e-gov Internet site at: www.sc.egov.usda.gov. Click on Register to open a USDA account and then have access to a WHIP application (CCC-1200) or other USDA programs. Applications also may be accepted by cooperating conservation partners approved or designated by NRCS.

ELIGIBILITY

Eligible lands under the program are:

- Privately owned land;
- Federal land when the primary benefit is on private or Tribal land;
- State and local government land on a limited basis; and
- Tribal land.

If land is determined eligible, NRCS places emphasis on enrolling:

- Habitat areas for wildlife species experiencing declining or significantly reduced populations;
- Practices beneficial to fish and wildlife that may not otherwise be funded; and

- Wildlife and fishery habitats identified by local and State partners and Indian Tribes in each State.

The Adjusted Gross Income provision of the 2002 Farm Bill impacts eligibility for WHIP and several other 2002 Farm Bill programs. Individuals or entities that have an average adjusted gross income exceeding \$2.5 million for the three tax years immediately preceding the year the contract is approved are not eligible to receive program benefits or payments. However, an exemption is provided in cases where 75 percent of the adjusted gross income is derived from farming, ranching, or forestry operations.

FOR MORE INFORMATION

If you need more information about WHIP, please contact your local USDA Service Center, listed in the telephone book under U.S. Department of Agriculture, or your local conservation district. Information also is available on the World Wide Web at:

<http://www.nrcs.usda.gov/programs/farmbill/2002/>

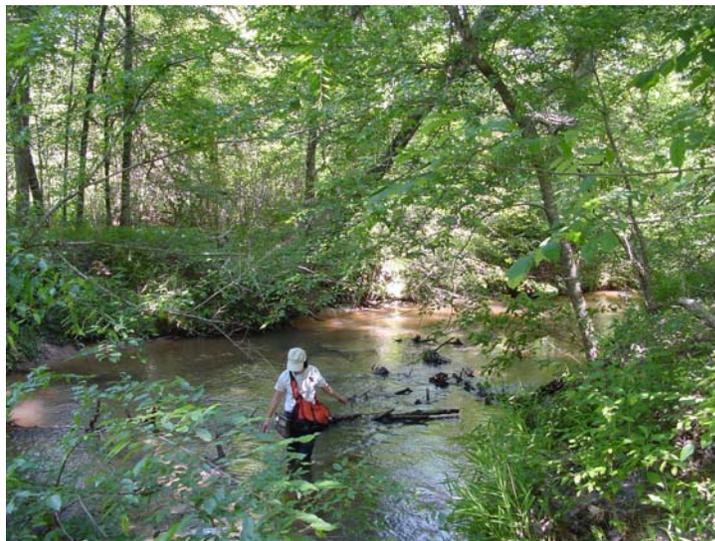
Visit USDA on the Web at:

<http://www.usda.gov/farmbill>

Note: This is not intended to be a definitive interpretation of farm legislation. Rather, it is preliminary and may change as USDA develops implementing policies and procedures. Please check back for updates.

SMALL STREAM FORESTS

Small stream forests are relatively narrow wetland forests occurring along small rivers and large creeks in central, western, southeastern, and northern Louisiana. They are seasonally flooded for brief periods. The percentage of sand, silt, calcareous clay, acidic clay, and organic material in the soil is highly variable (depending on local geology) and has a significant effect on forest species composition. Soils are typically classified as silt-loams. At times, the community is quite similar in species composition to hardwood slope forests (beech-magnolia forests). These forested wetlands are critical components of the landscape filtering surface and subsurface flows, improving water quality, and storing sediment and nutrients



Ines Maxit, past zoologist, searching for mussels in Castor Creek in Rapides Parish.

(Rummer 2004). Common trees include southern magnolia, beech, black gum, swamp white oak, white oak, water oak, laurel oak, cherrybark oak, sweetgum, sycamore, red maple, river birch, hickory, bitternut hickory, white ash, water ash, cherry laurel, and winged elm. Yellow poplar occurs in small stream forests of southeastern and central Louisiana. Spruce pine is a common associate in the Florida Parishes. Baldcypress and loblolly are occasional associates statewide. Sweet bay and bigleaf magnolia may be present. Primary midstory and understory associates include silverbell, ironwood, sweetleaf, hazel alder, wild azalea, and bigleaf snowbell. Starbush and Sebastian bush are common in the Florida Parishes, the former at times being the dominant understory shrub. Swamp cyrilla, fetterbush, leucothoe, and



winterberry are common understory affiliates in the eastern Florida Parishes. *Isoetes louisianensis* (Louisiana quillwort, shown left), an aquatic fern that is federally-listed as endangered, occurs in and along streams clothed by small stream forests in the eastern Florida Parishes. Communities possessing physical characteristics and species complement of both riparian forest and bayhead swamp occur in central and northern Louisiana.

Current Extent and Status



Riparian forests are extremely susceptible to damage, and only an estimated 25 to 50% of Louisiana's original small stream forests remain intact (Smith 1993). Initial habitat loss, degradation and fragmentation of these forested wetlands resulted from agricultural conversion and timber harvesting. With the implementation of best management practices (BMPs) for forestry and agricultural uses, habitat destruction has shifted

The table below indicates the 36 animals that have been determined by LDWF and partnering organizations as species of conservation concern in Louisiana's small stream forests.

SMALL STREAM FOREST SPECIES OF CONSERVATION CONCERN (36)		
AMPHIBIANS	Worm-eating Warbler	MAMMALS
Southern Dusky Salamander	Swainson's Warbler	Southeastern Shrew
Four-toed Salamander	Louisiana Waterthrush	Southeastern Myotis
Webster's Salamander	Kentucky Warbler	Northern Myotis
Louisiana Slimy Salamander	Hooded Warbler	Silver-haired Bat
Southern Red-backed Salamander	Rusty Blackbird	Big Brown Bat
	Orchard Oriole	Ringtail
		Long-tailed Weasel
	BUTTERFLIES	Eastern Spotted Skunk
BIRDS	Pepper and Salt Skipper	
American Woodcock	Falcate Orangetip	REPTILES
Yellow-billed Cuckoo	Harvester	Common Rainbow Snake
Chuck-Will's-Widow	' Seminole' Texan	Timber Rattlesnake
Wood Thrush	Crescent	
Bell's Vireo	Creole Pearly Eye	
Yellow-throated Vireo	Appalachian Brown	
Northern Parula		
Prothonotary Warbler		

primarily to urbanization, although silvicultural and agricultural activities are still contributing some threat (Rummer 2004). The Louisiana Natural and Scenic River System (LNSRS) program currently monitors and protects 70 streams or stream segments in the state with over 3,300 miles of streams in the system. The LNSRS has been effective in protecting some of the state's riparian forests, however this is only a very small portion of the total stream miles in the state (about 19%). Streams or portions of streams on both federal and state public lands such as Kisatchie National Forest and various State Parks and Wildlife Management Areas are also afforded some protection. The Natural Areas Registry Program has 12 properties containing small stream forests with a total of 792 acres.

Threats Affecting Habitat

All the threats and sources of threats have been identified across all ecoregions of the state where small stream forest occurs. Examples of threats are: Channelization; commercial/industrial development; construction of drainage or diversion systems; conversion to agriculture or other forest types; dam construction; development/maintenance of pipelines, roads or utilities; gravel mining; incompatible forestry

practices; invasive/alien species; livestock production practices; mining practices; oil or gas mining; parasites/pathogens; recreational-use vehicles; and residential development. These threats result in altered composition/structure, altered water quality, habitat destruction or conversion, habitat fragmentation, modification of water levels, changes in natural flow patterns, sedimentation, and toxins/contaminants.

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LONG-SEPALED FALSE DRAGON-HEAD **Physostegia longisepala Cantino**



Long-sepaled false dragon-head is a globally rare plant that is endemic to the West Gulf Coastal Plain of southwest Louisiana and southeast Texas. Populations occur in bottomland hardwoods, small stream forests, interior fresh marshes, pastures, and in roadside ditches. Threats include over stocking of forests, infestation by Chinese tallowtree (*Triadica sebifera*) and other exotics, dredging, scraping, and herbiciding of roadside ditches. The Louisiana distribution includes Beauregard, Calcasieu, Allen, and Acadia Parishes. It is known from three Texas counties (Jasper,

Newton, and Orange). Associates in forested habitats can include laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), and green ash (*Fraxinus pennsylvanica*). Associates in herbaceous habitats can include many weedy and conservative species. The best time to observe this species is in May. The key identifying character is the deep lavender to reddish violet tubular corolla. Long-sepaled false dragon-heads are perennial herbs that grow up to 3 ft tall. They have 4-8 pairs of opposite stem leaves that are usually clasping the stem and get smaller higher up on the plant. Photo by Chris Reid.

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LOUISIANA WATERTHRUSH *Seiurus motacilla*

Despite the many characteristics it shares with the northern waterthrush – from being a warbler, to an earthbound lifestyle and teetering, head-and-tail-bobbing stance – the Louisiana waterthrush manages to keep its identity distinct. To begin with, although it does sometimes live in swamplands, it prefers the wooded edges along swift streams, especially in its northerly range. During nesting season, the Louisiana waterthrush feeds almost entirely in these streams, flipping over leaves in the manner of its more northern relative and eating the aquatic creatures that are dislodged. The rest of the year it also picks into crannies for insects and spiders, and at times darts into the air flycatcher-style to snatch its prey in mid-flight. Even this southern waterthrush's home is uniquely personalized. Dwelling in a small hole it has gouged into a stream bank and filled with leaves, it often builds a leaf doormat at the front of its nest of a long walkway of leaves, usually leading down toward the stream. The male does not sing as much as a Northern waterthrush; he is usually quiet on a migration and he helps his mate with nest building. The Louisiana Waterthrush's song, however, is wilder and perhaps more musical than that of his cousin as it rings with eerie loveliness through the wilderness of his streamside haunts.

Description

The Louisiana Waterthrush is a large brownish wood-warbler (length 6 in, weight 0.72 oz) with a short tail and white underparts. It is similar in all respects to the Northern waterthrush. However, Louisiana waterthrushes are bulkier and have heavier bodies, longer bills, broader white supercilium (eyebrow), sparser brown (not black) streaking on their breasts and flanks, and their legs are brighter pink than the Northern waterthrush. Louisiana waterthrush bobs its tail more slowly



than the Northern waterthrush and in a semicircular pattern. Their song is musical, clear, and sweet; beginning with three or four high, clear, slurred whistles (*seeup seeup seeup*), then a series of jumbled, descending chips and chirps. Alternate song is similar but is much longer and rambling. They also have a loud, strong *spich* that is not as hard as the Northern waterthrush (*spwik with strong k sound*). Both birds flight calls are a buzzy, high, slightly rising *zzip*.

Range

Breeding: Eastern United States, from the southern Great Lakes region (including southern Ontario and perhaps rarely in southwestern Quebec) to southern New England; from eastern Texas across the Gulf states to northern Florida. Louisiana Waterthrush are often the first warbler species to arrive on its breeding grounds; singing males arrive as far north as New York by early April. **Winter:** Ranges from Central Mexico, although generally absent from Yucatan

peninsula, through Central America into northern South America. Also winters in southern Florida, rarely in southern Arizona, the Bahamas, and throughout the West Indies.

Habitat

Louisiana waterthrush prefer wooded streams and the water's edge. Breeding habitat is in mature deciduous or mixed forests with moderate to sparse undergrowth, near rapid flowing streams. It is therefore often found in hilly terrain or in ravines; occasionally in mixed floodplain and swamp forests in flatter terrain. The key component of this species' habitat is clear flowing water.

Food Habits

Preferred prey are aquatic insects and invertebrates, also small to medium-sized flying insects. They may sometimes eat small fish or small frogs. Louisiana waterthrush walk along the water's edge bobbing their tails rhythmically while turning over leaves and other debris in search of aquatic animals. They primarily pick, or take quick-jab-like strokes directly at food items, or at substrates such as herbaceous plants, leaf litter, soil, rocks, and moss. Other strategies include leaf-pulls, where the bird grasps a dead leaf submerged in the water, pulls it upward, then flips it over to expose hidden prey; occasionally sallies upward for flying insects or hover-gleans prey from vegetation too high to be reached from a standing position.

Reproduction and Life Expectancy

Pairs begin searching for a nest site within a day after pair formation. The male enters a potential site, turns around several times while tugging at nearby leaves to drag them into a cavity, and calls softly to the nearby female. If she does not enter, then the male follows her farther up the creek to explore other sites. The female lays 4-6 white to creamy-white eggs that have spots, or blotches of reddish brown usually concentrated at the large end but sometimes scattered evenly over the entire egg. Only the female incubates the eggs for 14-16 days depending on the latitude. The male does

not feed the female, but he does accompany her on foraging bouts. The young are born in a relatively underdeveloped state and are fed by both parents, although the male appears to feed the nestlings more often. The nestlings quietly huddle together until an adult enters the nest. The young fledge (leave the nest) at ten days after hatching, lured by adult's chip notes to protective shrubs or brush piles. Fledglings can fly six days after leaving the nest and begin feeding on their own at seven days. Parents probably produce a single brood since adults often depart breeding territories by July. Louisiana waterthrush are frequent hosts of cowbird Parasitism where cowbirds lay their eggs in the waterthrush's nest and the cowbird nestling kicks out the waterthrush nestling after hatching. Louisiana Waterthrush are known to live 8 years.

Conservation Status

This species is of high conservation importance, because of its relatively small breeding range, low overall density, and dependence on clear forest streams both on its breeding and tropical wintering grounds. Populations of this warbler appear to be stable, although they are difficult to monitor accurately. Precise habitat requirements, especially the characteristics of forest patches surrounding their streamside territories, are poorly known. Effects of forest fragmentation, silvicultural and mining practices are also important to understand when planning for this species' long-term conservation.

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SILVER-HAIRED BAT *Lasioncycteris noctivagans*

Introduction

Bats are the only mammals that possess true, flapping wings and the ability to fly (as opposed to flying lemurs, for example, which glide). Perhaps the most distinctive feature of bats is their wings, which are formed from a double layer of skin stretched between the side of the body and the 4 elongated fingers on each hand. This provides a high degree of maneuverability in flight. Their wingspans vary widely, ranging from over 5ft in the large flying fox to as little as 6in in the hog-nosed bat. Although bats' eyes are well developed, hearing and the sense of smell are more important than sight. Over half of bat species with fox-like faces don't echolocate. The other half use echolocation to capture prey and navigate at night. Chiroptera is a huge order that comprises nearly one quarter of all mammal species and is exceeded only by rodents in terms of species numbers. Bats are common in tropical and temperate habitats worldwide but are not found in environments that are too cold to support a source of food, such as the Polar regions.

Description

Silver-haired bats are small to medium sized bats (length is 3.7"– 4.5", weight is 0.2 oz --0.49 oz). Their backs are dark brown with a strong wash of silver and their belly is slightly lighter with a less obvious silver wash. Silver-haired bats emerge earlier than most and are easily recognized in flight. With the possible exception of the western pipistrelle, it is the slowest flying North American bat. It flies slowly and leisurely, and sometimes very close to the ground.

Range

Silver-haired bats range throughout most of the continental United States, southern Canada, southeastern Alaska, northeastern Mexico, and Bermuda. They are primarily a northern species. This bat is erratic in abundance, being scarce throughout much of its wide range. Silver-haired bats are historically rare in Louisiana where their known distribution occurs in Lincoln, Winn, and Vernon Parishes. The greatest abundance is probably in the northern Rockies, from Wyoming



and Idaho north into Canada. It is also rather common in parts of New England and New York.

Habitat

Silver-haired bats prefer old growth forests especially along streams and rivers. A typical day roost is the space behind a piece of loose bark on a tree. Individuals have also been found in woodpecker holes and on bird's nests. During migration they may be encountered in a wide variety of other shelters. Although they may appear in any kind of building, they favor open sheds, garages, and outbuildings rather than enclosed attics. They frequently rest in a pile of slabs, lumber, railroad ties, or fence posts, especially when migrating through the prairies where shelters are scarce. The adults usually appear individually but frequently are found in pairs and occasionally in groups of three or four. Because their day roosts are so rarely encountered, no one has studied their habits.

Food Habits

Silver-haired bats are insectivorous and eat primarily flies, beetles, and moths. They hunt in early evening or late afternoon along streams or along forest edges. Silver-haired bats have two foraging periods each night. The first period is 3-4 hours after sunset and the second one is 6-8 hours after sunset¹. They use their tail and wing membranes as nets to catch and trap food.

Reproduction and Life Expectancy

Individuals reach sexual maturity at 1 year of age. Mating begins at the end of September and 1-2 young are born in June or July. There is some evidence of segregation of males and females when the females are ready to have their offspring. Although most bats typically roost head-down, pregnant silver-haired female bats roost head up. By adopting this sleeping posture, the tail membrane can be used as a basket to catch their newborn babies¹. Silver-haired bats may reproduce in large groups of up to 12 females. Young bats begin to forage with their mothers at 3 weeks of age. They are known to live not more than 12 years.

Migration Behavior and Hibernation

The silver-haired bats are migratory and sometimes migrate in groups. During the winter (October – April/May), residents of cold climates migrate to warmer regions. Bats that reside in warmer regions (i.e., Louisiana) are typically permanent residents and do not migrate. There are several records of groups of weary bats descending upon ships at sea. Some bats that were netted and banded during summer months were recaptured over 100 miles away! In some places, silver-haired bats will hibernate in caves and occasionally trees or buildings during the winter.

Conservation Status

This species is a Louisiana species of conservation concern. Unlike many species of birds, bats are long-lived, have low reproductive rates, and appear to be especially vulnerable to wind turbines. Unless solutions are soon discovered to prevent or minimize this new threat, the cumulative impact on populations of bats could become extremely serious. Current evidence suggests that bat mortality appears to be highest in or near forests, especially along ridge tops, moderate in open areas close to forests in the Midwest, and lowest in open grassland or farmland away from forests.

Reason for Decline

Populations may be threatened by the destruction of old growth forests because they depend upon these forests for breeding and roosting. More research is needed on the silver-haired bat.

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- ¹ This information is reprinted with permission from Bat Conservation International, Inc. (BCI). For more information about bats, BAT Magazine, or membership in BCI, please visit the BCI web site at www.batcon.org or write or call: bat Conservation International, Inc., P.O. Box 162603, Austin, Texas, 78716, 512.327.9721.

Correction from September 2005 Newsletter
“Managing The Forest and The Trees: A Private Landowner’s Guide to Conservation Management of Longleaf Pine” was incorrectly cited as a USDA Forest Service publication.
The correct citation is: Moore, J. 2001. Ed: L. Earley. The Nature Conservancy, LA Field Office, Baton Rouge. 37 pp.

Louisiana Natural Heritage Program (LNHP) Staff

Program Coordinator

Gary Lester (225) 765-2823
glester@wlf.louisiana.gov

Administrative Assistant

Brandy Williams (225) 765-2821
bwilliams@wlf.louisiana.gov

Zoologist

Currently Vacant

Plant Community Ecologist

Patti Faulkner (225) 765-2975
pfaulkner@wlf.louisiana.gov

Botanist

Chris Reid (225) 765-2828
creid@wlf.louisiana.gov

Data Manager

Currently Vacant

Assistant Data Manager

Steve Carpenedo (225) 765-2357
scarpenedo@wlf.louisiana.gov

Natural Areas Registry Coordinator

Judy Jones (Contractor) (225) 765-2822
Newsletter editor
jjones@wlf.louisiana.gov

Judy Jones – Natural Areas Registry
Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000