

LMNGBR BioBlitz

LSU Hilltop Arboretum in Baton Rouge, Louisiana

April 26-27, 2019

Hilltop Arboretum is 14 acres of land in an urban area featuring hardwood forest on the natural levee of the Mississippi River with natural ravines, plus man-made meadows, wetlands and a pond. Geologically speaking, this area is loess pleistocene terrace.

LMNGBR's primary goal, which is to provide scientific, research-based education to the general public for a better understanding of the local natural ecosystems, and promote conservation and preservation of native plant and animal life and habitats within the Greater Baton Rouge area. This aligns very well with the intent of Hilltop Arboretum, which is to remain a model of the natural landscape and for use as an outdoor laboratory. Mr. Emory Smith donated his Hilltop property to Louisiana State University in 1981 because of his love of the natural world and his belief in education.

This was the second BioBlitz for both the Louisiana Master Naturalists of Greater Baton Rouge (LMNGBR) and Hilltop Arboretum. Leslie Day was the coordinator for the event.

The site is in a transition phase due to the significant amount of soil grading that was done over the last 6 months. The new soil amphitheater was created, a new Cajun Prairie was seeded, and 178 trees were planted on the north side of the property. The earthwork and unfinished drainage projects are directly impacting the biodiversity this year, but we look forward to seeing the changes over time as everything settles in.

The data was collected primarily in iNaturalist and eBird. We altered the iNaturalist BioBlitz project so it is ongoing all year long to allow observations to be added throughout the year by our participants and the public. In addition to canvassing the property on foot, we utilized night blacklighting, a bat sonar detector, drop traps, a trail camera, and various netting and collection techniques in the pond. The activities ran about 12 hours, between 6:00 p.m. Friday through 3:00 p.m. Saturday when we closed Hilltop in anticipation of the arrival of the Girl Scouts. The temperature Friday night was 61°F, and it was sunny on Saturday, with a low of 54°F in the morning and warming up to around 82°F when we finished.

We had 21 LMNGBR volunteers, with several volunteers returning for both days. The guest experts led survey walks and were vital to this effort. 403 observations were collected this year, representing 201 species.

On Friday night, Dr. Kathy Morden kicked off the nocturnal naturalist activities with s'mores and an astronomy lesson around the fire pit. On Saturday, there was ongoing data collection and survey walks with our guest experts.

In an effort to find more mammals, and in particular, canids, we put up a trail camera Friday night. The camera did not capture any additional mammals (besides naturalists on night hikes). Also for mammals, we tried out a new iPhone Wildlife Acoustics Echo Meter during the astronomy session. We could see very low flying bats at sunset, and the device identified two species by their calls.

Another new technique we tried this year was the classic drop trap. We buried plastic cups so the lip of the cup was flush with the ground. Only two small beetles fell into them overnight, so next time will need to either leave them longer or add an attractant.

Karen Westphal collected aquatic life again this year, which is always a fascinating process.

Hilltop Arboretum added a Girl Scout camp out to the BioBlitz this year. Five LMNGBR volunteers assisted with the educational hands-on that earned the scouts a badge. Vicki Laplace was instrumental in building the activities. Two troops attended, which consisted of 17 Girl Scouts plus several parents. The first activities featured pond biology - one station was to use dip nets to collect specimens, and the second station was to view and identify the aquatic life in the tank and scopes with Karen Westphal. The Scouts received Pondwatch Bugdials and notebooks made by Vicki Laplace, Cindy Thompson and Leslie Day for the girls to use to identify and take home with them. Next, Peggy Coates led a fascinating pine tree identification lesson and then a butterfly host plant walk. Next, the Scouts were partnered up and set loose for a rousing scavenger hunt. After sunset, it was dinner time, and they cooked hot dogs and s'mores in the fire pit. We then led them on a night hike where they saw fireflies, listened for owls and frogs, and looked at pretty lichens with the UV flashlight. The moth sheets were left up so the Scouts were able to look for moths overnight. The next morning, Lindsay Seely, a Scout mother and avid birder, led the girls on a bird walk. The grand finale was a visit from Ernie the Hawk brought by his handler, Matt Mullenix.

Hilltop Species Total

October 3, 2015 – May 19, 2019

iNaturalist and eBird (species level only)

Amphibians 5
Arachnids 8
Birds 51
Fungi 6
Insects 101
Mammals 4
Mollusks 0
Other Animals 7
Plants 189
Protozoans 0
Ray-Finned Fishes 3
Reptiles 8
Total: 375 Species

Thoughts on Results:

The highest bird count was 15 Cedar Waxwings, and the runner-up was 14 Northern Cardinals. Cedar Waxwings were the most numerous last year as well.

The counts on butterflies were again much lower than expected. We did not have a harsh winter, so we were expecting the count to be higher. Dr. Michael Israel told us that the dragonflies were eating all of them. That had not occurred to us, and there definitely were massive amounts of dragonflies. Their numbers are perhaps boosted by a drainage project in progress that had several ditches criss-crossing the property with standing water in them.

The snake count was low this year, and we suspect that is due to the grading work.

There is a developing invasive species problem in the northwest corner of the property where Bushkiller is growing very aggressively.

Thoughts for next year:

Scheduling is a big hindrance in the spring, so a new concept is being considered – scheduling smaller data collecting events instead of one all-encompassing weekend. This allows for more one-on-one time with beginners and data collected from different seasons. The LMNGBR board is also looking into adding introductory citizen science components to certification training.

The number of scouts (17) was manageable, but any more than that would be too many for hearing the lessons and for a quality participation experience. The Scouts immensely enjoyed the scavenger hunt.

Fun Stuff

Most Observations Posted in iNaturalist During the Event - Top 5

106 Tracey Allen
58 Amber King
52 Erin Bryan
42 Amanda Marshall
41 Katherine Gividen

Most Observed Species During the Event - Top 5

Pond Slider
Blue Dasher
Spring Fishfly
Non-biting Midge
Spanish Moth

Most Species Observed During the Event - Top 5

61 Tracey Allen
45 Amber King
31 Erin Bryan
24 Amanda Marshall
12 Katherine Gividen

Top Nature Moments

- When a night hike with a UV flashlight revealed large millipedes that glowed neon yellow.
- When Katherine Gividen finally saw a Spanish Moth, her favorite moth that she had not yet seen in person.
- When the bird walk participants all got to see the Blackburnian Warbler, an unexpected find in such an urban location.
- When Karen Westphal revived an exhausted hummingbird that dropped out of nowhere onto the floor of the pavilion.

Weirdest Finds



Tree covered in misshapen galls, by Erin Bryan; Glowing flat-backed millipedes, by Amber King.

Best Photos



Blackburnian Warbler in pecan tree tassels, by Vitek Jirinec; LSU colored mosquito, by Erin Bryan.

The Scouts



Acknowledgements

Many thanks to our BioBlitz participants:

Guest Experts

Arthropods - Michael Israel, LSU

Birds - Vitek Jirinec, LSU

Plants - Peggy Coates, Hilltop Arboretum

Herps - Ben Grizzle, L.A.R.E.

Ernie the Hawk - Matt Mullenix

LMNGBR Volunteers and Leaders

Jo Dale Ales

Tracey Allen

Erin Bryan

Bonnie D'Antonio

Leslie Day

Annette Escudé

Katherine Gividen

Stephanie Hyde

Amber King

Vicki Laplace

Wayne McCartney

Amanda Marshall

Kathy Morden

John Nettles

Gayle Pepin

Karen Pinsonat

Betty Prindle

Jack Reilley

Art Scarbrough

Dan Strecker

Cindy Thompson

Karen Westphal

Thanks to:

Peggy Coates for her enthusiastic support and various supplies; Our guest experts; Kathy Morden for providing the astronomy gathering; Colette Dean for bringing the fire pit; Art Scarbrough for bringing the trail camera; Katherine Gividen for bringing her telescope, moth sheet setups, and more; and all of the LMNGBR volunteers that shared their time and supplies, and for contributing to a fun and social setting.

Summary of Observations

May 2018 to May 2019

Amphibians

Bronze Frog	Lithobates clamitans clamitans
Cricket Frog	Acris
Green Tree Frog	Hyla cinerea
Tadpole	Anura

Fungi & Lichens

Earth Star	Geastrales
Mottlegill	Panaeolus
Parasola	Parasola

Fish

Bluegill	Lepomis macrochirus
Least Killifish	Heterandria formosa
Western Mosquito Fish	Gambusia affinis

Mammals

Eastern Gray Squirrel	Sciurus carolinensis
Eastern Red Bat	Lasiurus borealis
Evening Bat	Nycticeius humeralis
Rat	Murinae

Birds

Acadian Flycatcher	Empidonax virescens
American Robin	Turdus migratorius
Anhinga	Anhinga anhinga
Baltimore Oriole	Icterus galbula
Barred Owl	Strix varia
Black Vulture	Coragyps atratus
Blackburnian Warbler	Setophaga fusca
Blue Jay	Cyanocitta cristata
Blue-gray Gnatcatcher	Poliophtila caerulea
Brown Thrasher	Toxostoma rufum
Brown-headed Cowbird	Molothrus ater
Canada Goose	Branta canadensis
Carolina Chickadee	Poecile carolinensis
Carolina Wren	Thryothorus ludovicianus
Cedar Waxwing	Bombycilla cedrorum
Chimney Swift	Chaetura pelagica
Common Yellowthroat	Geothlypis trichas
Downy Woodpecker	Picoides pubescens
Eastern Bluebird	Sialia sialis
Eastern Towhee	Pipilo erythrophthalmus
Fish Crow	Corvus ossifragus

Gray Catbird
Great Egret
Hooded Warbler
House Sparrow
Indigo Bunting
Mississippi Kite
Northern Cardinal
Northern Mockingbird
Prothonotary Warbler
Red-bellied Woodpecker
Red-eyed Vireo
Red-shouldered Hawk
Rose-breasted Grosbeak
Ruby-throated Hummingbird
Snowy Egret
Tufted Titmouse

Dumetella carolinensis
Ardea alba
Setophaga citrina
Passer domesticus
Passerina cyanea
Ictinia mississippiensis
Cardinalis cardinalis
Mimus polyglottos
Protonotaria citrea
Melanerpes carolinus
Vireo olivaceus
Buteo lineatus
Pheucticus ludovicianus
Archilochus colubris
Egretta thula
Baeolophus bicolor

Reptiles

Broadhead Skink	<i>Plestiodon laticeps</i>
Common Musk Turtle	<i>Sternotherus odoratus</i>
Green Anole	<i>Anolis carolinensis</i>
Little Brown Skink	<i>Scincella lateralis</i>
Plain-bellied Watersnake	<i>Nerodia erythrogaster</i>
Red-eared Slider	<i>Trachemys scripta elegans</i>
Yellow-bellied Slider	<i>Trachemys scripta scripta</i>

Arthropods & Other Invertebrates

Aphids	Aphididae
Aquatic, Annelids	Annelida
Aquatic, Common Water Strider	<i>Aquarius remigis</i>
Aquatic, Flatworms	Platyhelminthes
Aquatic, Giant Water Bug	Belostomatidae
Aquatic, Midge larvae	Arthropoda
Aquatic, Seed shrimp	Ostracoda
Aquatic, Springtails	Collembola
Aquatic, Water Boatmen	Corixidae
Bee, Common Eastern Bumble Bee	<i>Bombus impatiens</i>
Bee, Western Honey Bee	<i>Apis mellifera</i>
Beetle, Alligator weed flea beetle	<i>Agasicles hygrophila</i>
Beetle, Asian Lady Beetle	<i>Harmonia axyridis</i>
Beetle, Eastern Eyed Click Beetle	<i>Alaus oculatus</i>
Beetle, Ground Beetles	Carabidae
Beetle, Horned Passalus Beetle	<i>Odontotaenius disjunctus</i>
Beetle, Margined Leatherwing Beetle	<i>Chauliognathus marginatus</i>
Beetle, Scarab	<i>Phyllophaga crenulata</i>
Beetle, Spotted Cucumber Beetle	<i>Diabrotica undecimpunctata</i>
Butterfly, Gulf Fritillary	<i>Agraulis vanillae</i>

Cockroach, Pennsylvania Wood Cockroach	<i>Parcoblatta pennsylvanica</i>
Common Earthworm	<i>Lumbricus terrestris</i>
Cricket, <i>Miogryllus verticalis</i>	<i>Miogryllus verticalis</i>
Damselfly, Fragile Forktail	<i>Ischnura posita</i>
Dragonfly, Blue Dasher	<i>Pachydiplax longipennis</i>
Dragonfly, Common Whitetail	<i>Plathemis lydia</i>
Dragonfly, Eastern Pondhawk	<i>Erythemis simplicicollis</i>
Earwig, Ring-legged Earwig	<i>Euborellia annulipes</i>
Fishfly, Spring Fishfly	<i>Chauliodes rastricornis</i>
Fly, Common Lovebug	<i>Plecia nearctica</i>
Fly, Condyllostylus	<i>Condyllostylus</i>
Fly, Flesh Fly	<i>Sarcophagidae</i>
Fly, Mosquitoes	<i>Toxorhynchites rutilus</i>
Fly, Non-biting Midges	<i>Chironomidae</i>
Fly, Soldier Flies	<i>Stratiomyidae</i>
Fly, Vinegar and Fruit Flies	<i>Drosophilidae</i>
Katydid, Black-legged Meadow Katydid	<i>Orchelimum nigripes</i>
Katydid, Fork-tailed Bush Katydid	<i>Scudderella furcata</i>
Leech	<i>Hirudinea</i>
Mantid, Carolina Mantis	<i>Stagmomantis carolina</i>
Mayfly	<i>Ephemeroptera</i>
Mollusk, Snail	<i>Gastropodidae</i>
Moth, Angulose Prominent Moth	<i>Peridea angulosa</i>
Moth, Bagworm Moths	<i>Psychidae</i>
Moth, Blurry Chocolate Angle	<i>Macaria transitaria</i>
Moth, Common Buckeye	<i>Junonia coenia</i>
Moth, Dot-lined Angle	<i>Psamatodes abydata</i>
Moth, Fall Webworm Moth	<i>Hyphantria cunea</i>
Moth, Frilly Grass Tubeworm Moth	<i>Acrolophus mycetophagus</i>
Moth, Gray Archips Moth	<i>Archips grisea</i>
Moth, Green Cutworm Moth	<i>Anicla infecta</i>
Moth, Ipsilon Dart Moth	<i>Agrotis ipsilon</i>
Moth, Laudable Arches	<i>Lacinipolia laudabilis</i>
Moth, Painted Lichen Moth	<i>Hypoprepia fucosa</i>
Moth, Pyralid Snout Moths	<i>Pyralidae</i>
Moth, Salt Marsh Moth	<i>Estigmene acrea</i>
Moth, Scale-feeding Snout	<i>Laetilia coccidivora</i>
Moth, Scarlet-winged Lichen Moth	<i>Hypoprepia miniata</i>
Moth, Spanish Moth	<i>Xanthopastis regnatrix</i>
Moth, Streaked Eupragia	<i>Eupragia hospita</i>
Moth, Turnip Moth	<i>Agrotis segetum</i>
Moth, Virginian Tiger Moth	<i>Spilosoma virginica</i>
Moth, Waterlily Leafcutter Moth	<i>Elophila oblitalis</i>
Moth, Wedgling Moth	<i>Galgula partita</i>
Myriapod, Flat-backed Millipedes	<i>Polydesmida</i>
Myriapod, Greenhouse Millipede	<i>Oxidus gracilis</i>

Spider, Long-jawed Orbweavers	Tetragnathidae
Spider, Mabel Orchard Orbweaver	Leucauge argyrobapta
Spider, Six-spotted Fishing Spider	Dolomedes triton
Spittlebug, Two-lined Spittlebug	Prosapia bicincta
Termite, Formosan subterranean termite	Coptotermes formosanus
True Bug, Black Stink Bug	Proxys punctulatus
True Bug, Eastern Leaf-footed Bug	Leptoglossus phyllopus
True Bug, Largus Bug	Largus succinctus
Wasp, Blue Mud-dauber Wasps	Chalybion
Wasp, Four-toothed Mason Wasp	Monobia quadridens
Wasp, Fraternal Potter Wasp	Eumenes fraternus
Wasp, Polistes dorsalis	Polistes dorsalis

Plants

Acer rubrum	Red Maple
Albizia julibrissin	Persian Silk Tree
Alternanthera philoxeroides	Alligator Weed
Ampelopsis arborea	Pepper Vine
Aralia spinosa	Devil's Walkingstick
Arisaema dracontium	Green Dragon
Arundinaria gigantea	River Cane
Asimina triloba	Common Pawpaw
Asparagus aethiopicus	African Asparagus
Aspidistra elatior	Cast-iron Plant
Bambusoideae	Bamboos
Callianthe picta	Redvein Abutilon
Calyccarpum lyonii	Cupseed
Calypocarpus vialis	Straggler Daisy
Cayratia japonica	Bushkiller
Celtis laevigata	Sugarberry
Cirsium horridulum	Bristle Thistle
Citrus trifoliata	Trifoliate Orange
Cocculus carolinus	Carolina Snailseed
Commelinaceae	Spiderworts
Croton humilis	Pepperbush
Cyperus papyrus	Papyrus sedge
Eriobotrya japonica	Loquat
Erythrina herbacea	Cherokee Bean
Fagus grandifolia	American beech
Halesia diptera	Two-wing Silverbell
Hydrangea quercifolia	Oakleaf hydrangea
Hydrocotyle bonariensis	Dollar Weed
Illicium verum	Star Anise
Magnolia grandiflora	Southern Magnolia

<i>Magnolia macrophylla</i>	Bigleaf Magnolia
<i>Mazus pumilus</i>	Japanese Mazus
<i>Melilotus indicus</i>	Small Melilot
<i>Mikania scandens</i>	Climbing Hempvine
<i>Morus rubra</i>	Red Mulberry
<i>Narcissus papyraceus</i>	Paperwhite
<i>Ostrya virginiana</i>	American Hophornbeam
<i>Oxalis debilis</i>	Largeflower Pink-sorrel
<i>Packera glabella</i>	Butterweed
<i>Parrotia persica</i>	Persian Ironwood
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Phytolacca americana</i>	American Pokeweed
<i>Pluchea camphorata</i>	Camphor-weed
<i>Pontederia cordata</i>	Pickernelweed
<i>Potentilla indica</i>	Indian strawberry
<i>Pseudognaphalium</i>	Rabbit-tobaccos
<i>Quercus alba</i>	White Oak
<i>Ranunculus sardous</i>	Hairy Buttercup
<i>Rubus trivialis</i>	Southern Dewberry
<i>Rudbeckia laciniata</i>	Cutleaf Coneflower
<i>Rumex crispus</i>	Curly Dock
<i>Sabal minor</i>	Dwarf Palmetto
<i>Salvia lyrata</i>	Lyreleaf Sage
<i>Sassafras albidum</i>	Sassafras
<i>Saururus cernuus</i>	Lizard's Tail
<i>Scutellaria racemosa</i>	South American Skullcap
<i>Sida rhombifolia</i>	Cuban Jute
<i>Smallanthus uvedalia</i>	Bear's Foot
<i>Smilax smallii</i>	Lanceleaf Greenbrier
<i>Solanum americanum</i>	American Black Nightshade
<i>Soliva sessilis</i>	Common Soliva
<i>Stachys floridana</i>	Florida Hedgenettle
<i>Talinum paniculatum</i>	Jewels of Opar
<i>Taraxacum officinale</i>	Common Dandelion
<i>Taxodium distichum</i>	Baldcypress
<i>Toxicodendron radicans</i>	Poison Ivy
<i>Tradescantia fluminensis</i>	Small-leaf Spiderwort
<i>Trifolium repens</i>	White Clover
<i>Trifolium resupinatum</i>	Reversed Clover
<i>Trillium foetidissimum</i>	Mississippi River Wakerobin
<i>Triodanis perfoliata</i>	Clasping Venus's Looking Glass
<i>Ulmus americana</i>	American Elm
<i>Youngia japonica</i>	Oriental False Hawksbeard