

December 2018

Volume 31, Issue 4



LOUISIANA NATIVE PLANT SOCIETY



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- To preserve and study native plants and their habitats
- To educate people on the value of native plants and the need to preserve and protect rare and endangered species
- To promote the propagation and use of native plants in the landscape
- To educate people on the relationship between our native flora and wildlife

Louisiana Native Plant Society Meeting for February 1-3, 2019 at Wesley Center, Woodworth, LA 71485

Friday, February 1, 2019

(Snacks will be provided.)

5:30pm - 7:00pm Registration

7:00pm LSUA Senior in Biology/Chemistry, Chloe Lewis, will discuss her study on changing bloom times between historical and contemporary specimens of selected native plants from the Kistatchie National Forest's Evangeline Primitive Campsite

Saturday, February 1, 2019

7:30am Registration

7:30am - 8:30am Breakfast in the Dining Hall

9:00am - 9:45am Matt Conn, Partner/Director of Operations at SEG Environmental LLC, updates us on two ecological restoration projects (salt marsh; coastal woodland/prairie matrix) that he's been working on.

10:00am - 10:45am Paul Pastorek of the New Orleans Iris Society will discuss his group's Louisiana iris conservation initiative.

11:00am - 11:45am Acadiana Native Plant Project president Phyllis Griffard discusses her group's "Yards-to-Habitats" initiative.

12:00pm - 1:00pm Lunch/Plant Auction in the Dining Hall

1:00pm - 1:45pm Business Meeting

2:00pm - 3:00pm "These Are a Few of My Favorite Natives" Three experienced native plant gardeners from three different regions of Louisiana discuss their respective gardening conditions (habitat types, soil types, mulch?, water?, etc.) and reveal their best performing native plants. John Mayronne, Dr. Charles Allen, and Lawrence Rozas

3:00pm - 5:00pm Plant Auction

5:00pm - 6:00pm Dinner in the Dining Hall

6:00pm Campfire by the lake

Sunday, February 2, 2019

7:30am - 8:30am Breakfast in the Dining Hall

8:30am Meet at the front entrance to Wesley Center for field trip



NOTE FROM THE PRESIDENT: Hope to see you at the Louisiana Native Plant Society Meeting!!!

REGISTRATION FORM

LNPS Annual Meeting, February 1-3, 2019

Wesley Center, 2350 Methodist Parkway, Woodworth, Louisiana 71485

REGISTER by **JANUARY 26, 2019** at <https://www.thewesleycenter.com/online-registration> or return PRE-REGISTRATION FORM below. Susan Sellers can be contacted directly at the Wesley Center by calling 318-449-4500 Ext. 0 between the hours of 9am till 4pm or by email at ssellers@thewesleycenter.com.

Name _____

Address _____

City, State, Zip _____

Cell: _____ Email: _____

Emergency Contact: Name _____ Phone: _____

DAY PARTICIPANTS – for those who will be coming on Friday and/or Saturday and will not be staying the night

No meals _____ \$11.00

Saturday Breakfast _____ @ \$8.50ea \$ _____

Saturday Lunch _____ @ \$11.50ea \$ _____

Saturday Dinner _____ @ \$13.50ea \$ _____

ONSITE LODGING and meals – for those who will be staying the night

Private Room:

Friday and Saturday nights, includes all meals _____ @ \$226.00ea \$ _____

Friday night, includes all meals _____ @ \$125.50ea \$ _____

Saturday night, includes all meals _____ @ 134.00ea \$ _____

Double Occupancy Room:

Friday and Saturday nights, includes all meals _____ @ \$158.50ea \$ _____

Friday night, includes all meals _____ @ \$91.75ea \$ _____

Saturday night, includes all meals _____ @ \$100.25ea \$ _____

Triple Occupancy Room:

Friday and Saturday nights, includes all meals _____ @ \$147.25ea \$ _____

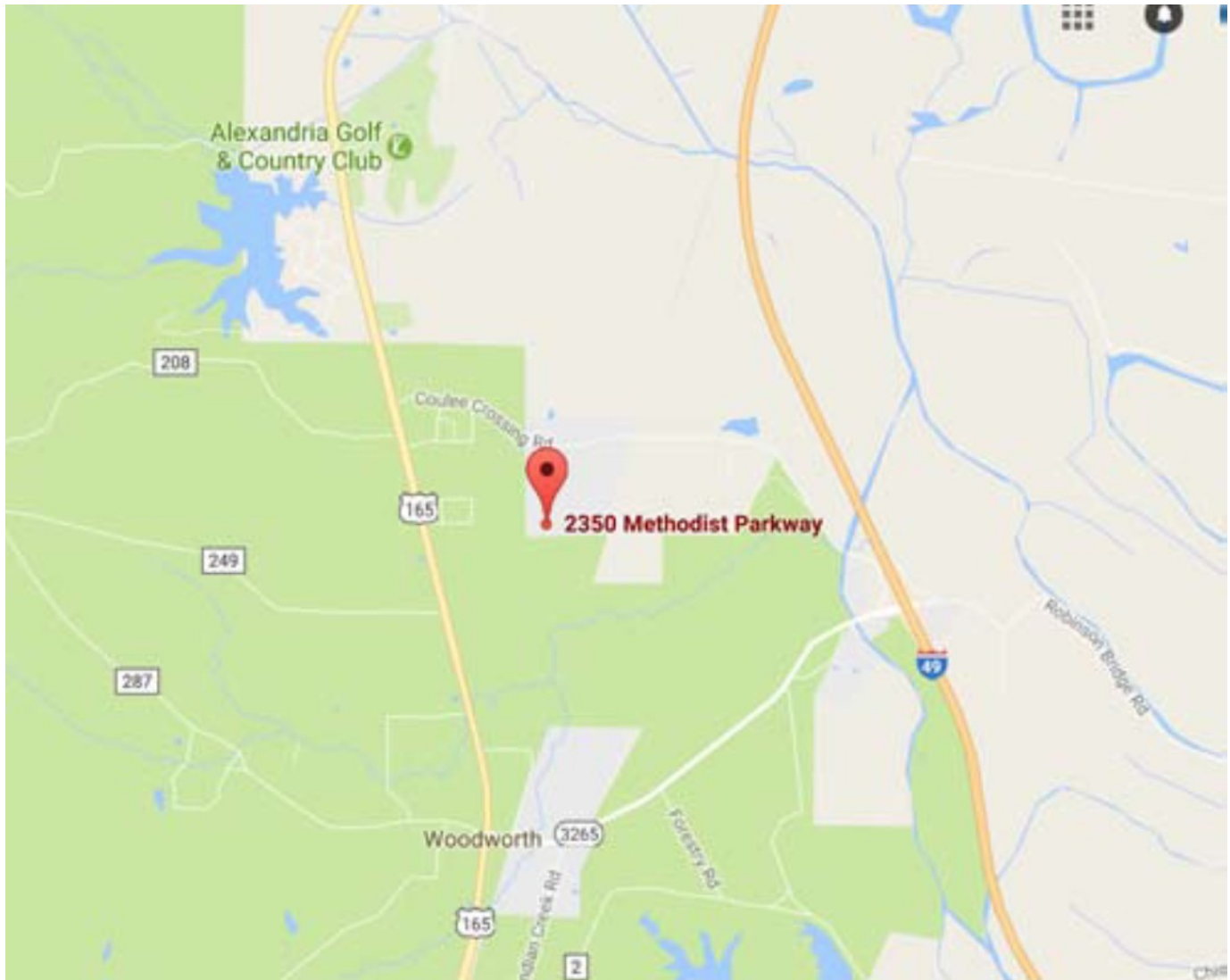
Friday night, includes all meals _____ @ \$86.13ea \$ _____

Saturday night, includes all meals _____ @ \$94.63ea \$ _____

TOTAL \$ _____

NOTE: All rates are per person. If you are booking double or triple occupancy please include all parties names and include payment for all parties or send in a separate reservation form for each party indicating who your roommate(s) will be.

RESERVATIONS MUST BE RECEIVED BY JANUARY 26, 2019.



Driving Directions to the Wesley Center

2350 Methodist Parkway - Woodworth, Louisiana 71485

The Wesley Center can be easily reached either from Highway 165, which runs through Woodworth north to Alexandria. Or it can be approached from I-49.

From Hwy 165 north of Woodworth, turn right on Coulee Crossing Road. Then turn right again onto Methodist Parkway and into the Methodist Conference Center.

From I-49, take exit 73 onto LA 3265 West. At the first cross street, turn right onto Coulee Crossing Road. Continue on Coulee Crossing Road and turn left onto Methodist Parkway and into the Methodist Conference Center.

Botanical Fruits by Charles Allen



The fruit is the botanical term for the structure that develops from the pistil of the flower. The fruit wall is termed the pericarp and can be very important in classification and identification. The two big categories of fruits are simple and compound with simple being derived from a single pistil and compound from more than one pistil. The stalk of a flower is called the peduncle so the stalk of a fruit is also the peduncle.

The next division of fruits (both simple and compound) is into fleshy and dry fruits. In fleshy fruits, the pericarp is soft, succulent, fleshy, and usually edible raw while the dry fruits are hard, dry, and usually not edible raw. The fleshy fruits include berry which is fleshy throughout with examples being tomato, grape, muscadine, eggplant, peppers, pawpaw, and persimmon. Note all of these have more than one seed but the avocado is also a berry with a single seed. A tomato is a berry and there is a saying "It takes knowledge to know that a tomato is a berry but wisdom to not put it in a fruit salad."



The citrus fruits, orange, lemon, lime, grapefruit, satsuma, kumquat, etc. are a special berry often called a hesperidium. This fruit is fleshy inside but the outer covering is leathery.

Another type of fleshy fruit is the drupe (also called stone or pit fruit) that has a somewhat

hard outer covering, the exocarp or skin, a fleshy middle portion, the mesocarp, and a very hard inner layer, the endocarp. Examples of the drupe fruit are peach, plum, apricot, mango, and cherry. Almonds are also a drupe but the fleshy portion is removed and when you buy almonds in the shell, the outer hard covering is the endocarp. All of these drupes have a single seed and the fruit of hollies is a drupe with more than one seed and each seed is surrounded by an endocarp. The word "pyrene" is often used for the holly fruit. The fruit of a coconut is a drupe but the coconut that you buy is the seed only of the coconut that is surrounded by the hard endocarp. Some say the coconut is the largest seed of any plant? You can often find a coconut fruit along the Gulf coast where the coconut has floated across the Gulf. I used to take my students from Monroe to Holy Beach in Cameron Parish and we would always find a coconut fruit to bring back to Monroe. It is a drupe with an outer covering and then a stringy mesocarp, instead of a fleshy one as in the peach, and then the endocarp surrounding the seed. Other drupes like the coconut with the stringy mesocarp include pecan, walnut, and hickory nut. Sometimes the word *tryma* is used for these fruits and at one time were considered nuts.

The third type of fleshy fruit is the pome which is produced by

plants with an inferior ovary. An inferior ovary is one that is located below or inferior to the other flower parts, the sepals, petals, and stamens. The base of these parts (sepals, petals, and stamens) are fused to produce the hypanthium and the hypanthium is fused to the ovary. In a pome, the hypanthium is fleshy and often edible. Apples, pears, crab apples, hawthorns including may haws are all pomes. In an apple, the stalk that you twist off going A, B, C, etc. is the peduncle. A quick story involving pomes. There is a disease called cedar apple rust caused by a fungus that alternates from cedar to apple. So, if you could eliminate the cedar trees in your area, you would also eradicate the cedar apple rust. West Virginia has lots of apples and a law was enacted to allow a person with an apple orchard the legal right to go onto their neighbor's land and cut down their cedar trees. This led to slogans from the apple growers of "cider or cedar" and then the cedar owners of "pencils or pomes". This was relayed to me by the late Dr. William Reese, who taught me a lot of botany.

There are also a number of fruits that come from an inferior ovary but the hypanthium does not become fleshy and these are often called false berries or in one family, a pepo. False berries include blueberry, cranberry, huckleberry, and banana. So the peeling on a



peanut which produces its flowers in the lower portion of the plant and then the peduncle (the flower stalk) elongates and pushes the ovary underground where the peanut fruit (the legume) develops. A few legumes like stick tights or beggar lice (genus *Desmodium*) produces its seeds in loments. A loment is a fruit with one cavity and the fruit breaks up into segments. These segments are the green triangular shaped fruit segments that stick to your clothes in the fall.

The silicle and silique are produced by members of the mustard family (*Brassicaceae* with the old name of *Cruciferae*). Both have two carpels and at maturity open along two lines to release the seeds. A whitish septum that separated the two halves remains on the plant. A silique is long and narrow and is produced by cabbage and its relatives, broccoli, cauliflower, kohlrabi, Brussel sprouts, collards, and kale plus mustard, radishes and a number of natives like the sea rockets. A silicle is about as wide as long and produced by pepper grass and shepherd's purse.

The capsule is the most popular of the dry fruits with many species producing their seeds in capsules. It is defined as a multiple loculed fruit that splits or opens at maturity to release the seeds. Okra is the best example of a capsule fruit. The capsule can split into segments longitudinally with each segment called a valve. The

banana is the hypanthium. Pepo is usually used for the false berries produced by the members of the squash or gourd family, the *Cucurbitaceae*. Squash, pumpkin, zucchini, cucumber, cantaloupe, honeydew melon, gourds, and others are pepos. So, as you peel the skin off a cucumber or make watermelon rind preserves, you are working with the hypanthium.

Now for the dry fruits and these are divided into the dehiscent group and the indehiscent ones. The dehiscent dry fruits open up to release the seeds at maturity and include the follicle, legume, silicle, silique, schizocarp, and capsule.

The follicle is a one locule (cavity) fruit where the fruit splits along one side only to release the seeds. The best example of a follicle is the milkweed (*Asclepias*) and its relatives like the climbing milkweed, *Matelea* etc. Other follicle producing plants are larkspur, peony, and magnolia, actually a compound fruit that will be covered later.

A very important plant family the legume family (*Fabaceae*) with the old family name of *Leguminosae* produces its seeds in the legume fruit, sometimes called a pod. This fruit is like the follicle in having one locule (cavity) but splits along two sides to release the seeds. Peas, beans, lentils, clover and more produce their seeds in a legume. Perhaps, the most unusual legume is the

splitting can occur at the junction of the locules so each valve is a locule and this is termed septicidial. Examples of septicidial capsules include foxglove (*Digitalis*), cotton, okra, and daturas. The splitting can occur in the center of the locule and this is termed loculicidal with violets and lilies as examples. The capsule in some plants splits in the middle from bottom to top rather than laterally and this is called a circumscissile capsule. It opens by splitting through the center of the fruit, so that the top of the capsule lifts off like a lid. Purslane (*Portulaca oleracea*), Amaranths, and plantain (*Plantago*) produce this kind of capsule which is sometimes called a pyxis. Finally, some capsules disperse their seeds thru pores developed in the capsule and this is called poricidal. Poppies including the opium ones are famous for this type of capsule but we also have a lot of Venus looking glass which also has poricidal capsules.

The schizocarp is a fruit that splits into two or more sections with one or more seeds inside, each section is called a mericarp. This fruit type is partially dehiscent (the fruit splits into two sections) and partially indehiscent as the seed(s) remain in the half of the fruit section. The typical schizocarp is produced by members of the carrot family (*Apiaceae*) with the old name of *Umbelliferae*. This family includes celery, parsley, fennel, coriander





and more. This fruit has two cavities each with a seed inside that does not open up. So, the spices celery seed or coriander or fennel are $\frac{1}{2}$ of a fruit with a seed inside. Some members of the Malvaceae also produce schizocarp fruits. The fruits of *Malva*, *Mahastrum*, and *Sida* produce this type of fruit.

Finally, we get to the second group of dry simple fruits and those are the indehiscent ones. These do not open up to release their seeds under normal conditions. Being stepped on by an elephant is not considered a normal event. These include the achene, cypsela, caryopsis, nut, and samara.



The achene is a one seeded dry fruit where the seed is connected to the fruit wall (pericarp) by the stalk called the funiculus. Sedges (Cyperaceae) produce achene fruits and the genus *Ranunculus* plus some members of the rose family (Rosaceae). The cypsela fruit is very similar to the achene and is sometimes lumped into the achene type. It is characteristic of the sunflower family, thus is produced by an inferior ovary which is the big difference between it and the achene. The classic example is sunflowers and if the "shell" fruit wall is still attached, it is a fruit not a seed so lots of incorrectly labeled packs of sunflowers seeds out there. If the pericarp has been removed, then it is a seed and is usually labeled as sunflower kernels.



The caryopsis sometimes called

grain is the most important in the world because it is what is produced by corn, wheat, and rice. It is a one-seeded fruit that is completely fused to the pericarp. Most of the corn that you eat is a corn fruit not a seed. If the pericarp (fruit wall) is removed, this creates hominy which is the corn seed only. The removal of the pericarp is difficult since it is completely fused to the seed so our ancestors learned to soak corn fruits in lye water so the pericarp could be removed. Of course, ground up hominy produces grits. I once heard a Yankee incorrectly state that grits are a terrible waste of carbohydrates. There are lots of native and introduced grass species out there and most producing the caryopsis fruits. However, three grass genera *Sporobolus*, *Dactloctenium*, and *Elensine* produce a bladdery one seeded fruit called a utricle.

The next fruit type could be descriptive of me or some of your friends, we are talking about the nut. It can be one seeded or with multiple seeds but to be a nut, the pericarp has to be very hard. The oak acorn is the best example of a nut. Other nuts include chestnut, chinquapin, and hazelnut. A small nut is termed a nutlet and this is the fruit of the mint family (Lamiaceae)

The last simple fruit is the samara which is basically a nut with a wing. Elms, ashes, and maples are examples of plants with samara fruits.

As defined earlier, compound fruits are produced from more than one pistil and include aggregate fruits and multiple fruits. Aggregate fruits come from a single flower while multiple fruits are produced from multiple flowers. The individual fruit of a compound fruit can be classified as one of the simple fruits as discussed earlier.

The fruit of a magnolia (the cone like structure) is an aggregate of follicles and the fruits of blackberry, dewberry, raspberry and other relatives is an aggregate of drupes. Strawberry is an aggregate of achenes with the edible portion being the swollen receptacle to which the other parts are attached.

Multiple fruits (from more than one flower) include the pineapple a multiple of berries and a mulberry also a multiple of berries. An ear of corn is a multiple of caryopses. By the way, the silk in an ear of corn is the style of the flower so there is one silk attached to each caryopsis on the ear.

Note strawberry and blackberry are not berries and peanut and coconut are not nuts. Even blueberry is a false berry.

In some cases, we eat both the seed and the fruit like cucumber, tomato, snap beans, strawberry, blackberry, mulberry, snow peas, corn, okra, and squash. Can you list additional ones?

In other cases, we eat the seeds only like chestnut, pecan, coco-

nut, shell beans, almond, peanut, corn (hominy), and sunflower. Can you list additional ones?

And then there are fruits where

we eat the fruit only and toss out the seeds. Watermelon (everyone know that if you eat the seeds, the vines will grow out of your ears) is the classic.

Others include avocado, cherry, peach, plum, cantaloupe, honeydew melon, mango, and apple. Can you list additional ones?



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2018 LNPS Grant Recipients

Student

Caitlin Bumby received the \$500 student grant for her research project “Understanding the microbiome’s role in Phragmites susceptibility to recently discovered scale insect in the Mississippi River Delta.” Caitlin is a student at Tulane University - Ecology and Evolutionary Biology, New Orleans, LA with an interest in invasive ecology. Her research is being guided by Dr. Emily Farrer, Professor, Ecology and Evolutionary Biology, Tulane University.

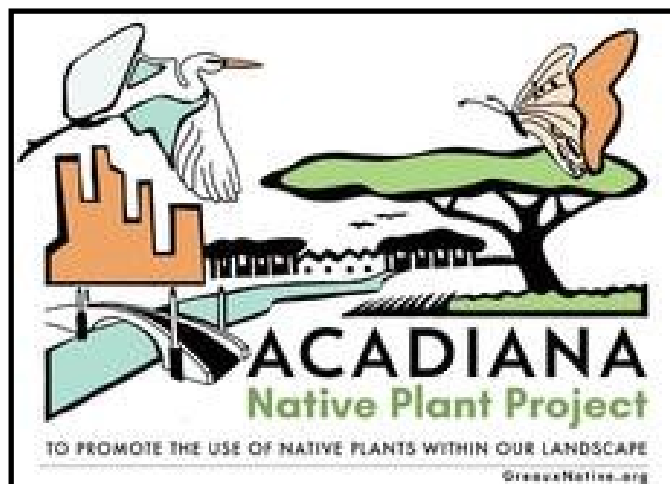
Organization

Keep Covington Beautiful, Inc. (KCP) directed by Priscilla Floca and Adam Perkins received the \$500 organization grant for their project to make improvements to the Blue Swamp Creek Nature Trail, including new boardwalks through some wetland areas. The Blue Swamp Creek Nature Trail was established in 2011 and provides visitors experiences in our natural environment to include pine prairies, wetlands, grass prairies, natural succession, prescribed fire, and

wildflower meadows. The project’s landscape design focuses on restoring the site through natural means and managing it for the purpose of conservation providing an educational tool to the public



Yard2Habitat: Why certify? by Phyllis Baudoin Griffard, President phyllisgriffard@gmail.com



www.greauxnative.org,
mail@greauxnative.org

Down here in the Lafayette area, the Acadiana Native Plant Project was launched a few years ago with the mission to promote the use of native plants in our landscape. We share a passion for plants and gardening with other members of the Louisiana Native Plant Society. However, the ANPP mission calls us to go beyond learning and appreciation. We said we would actively promote the use of natives. If we take the urgency of our conservation mission seriously, we need our efforts to pay off. Just telling others how awesome native plants are probably doesn't promote very effectively. That is why ANPP has embarked on a multi-pronged approach of education, demonstration and

propagation. Our monthly meetings bring speakers to share their expertise and inspire us. In the mild seasons we meet at inspiring public sites or homes that showcase how natives can be incorporated into the landscape. Our outreach team mans tables at local gardening and related events. The landscapes we installed at LARC's Acadian Village in Lafayette and the June Walker Memorial Greenhouse in Arnaudville demonstrate how native plants can be incorporated beautifully into residential gardens. All that inspiration is inevitably followed by questions about where to buy native plants locally. Growers and nurseries in Acadiana have told us there is not enough demand to justify carrying them. That conundrum provided us with two immediate challenges: to spur

market demand through outreach, and in the meantime to propagate native plants ourselves. We are now in our third growing season and anticipate selling over 1000 plants of over 30 different species again this year to support our mission. If we are effective, demand will soon outstrip our supply and motivate local commercial nurseries to expand their native plant offerings.

As nice as native plants are in their own right, we recognize that their real importance is as the foundation of ecosystems. In our post-wild world of vanishing habitat, our gardens should contribute to a connected corridor that provides safe passage for migrants and a healthy home base for resident interbreeding populations. That's why we need native plants in our landscape, not just to support one pollinator or agricultural service. Not just for flood control or respect for our natural heritage. Native plants are the base of every terrestrial ecosystem as food, shelter and soil stabilizers. Native plants do not do this individually, but as part of a whole that is far greater than the sum of its parts. Cultivars and introduced species do not serve these critical functions well, and traditional landscapes have been shown to be harmful to

ecological function, not benign beauties.

That is why we kicked off our 2018 agenda with a renewed focus on Connecting habitats, one garden at a time. Our first Yard2Habitat (Y2H) workshop in October was designed with adult learners in mind. We wanted to supplement existing educational symposia by offering an interactive workshop format in which participants would leave at the end of the day not only inspired and educated, but with a landscape plan and plant list in hand. Bill Fontenot led us off by presenting inspirational design principles underlying beautiful native landscapes, and Erik Johnson introduced us to Audubon's Plants for Birds Initiative. After touring the demonstration garden, participants worked in small groups facilitated by ANPP coaches to make sketches, get plant suggestions and possible sources. We'll be following up with our Y2H graduates to cheer them on so that their property will soon contribute more to the wildlife corridor.

At the end of the Y2H workshop, we encouraged Y2H participants to consider having their property certified. There are many such national programs for doing so: the National Wildlife Federation, Audubon Society, Xerces Society, Herb Society's Green-Bridges, MonarchWatch and Habitat Network. The vetting

process for certification varies, some as simple as an honor system of click boxes in an online form. Others expect more details, perhaps for research purposes. All will charge a small fee and the option to buy a yard sign. The astute will recognize the marketing and fundraising value of these certification programs for mega-nonprofits, but let's focus on the marketing potential of these certification signs for our respective missions. Yard signs identify your garden as purposeful. Passersby need this information whether your native landscape is manicured or wild. The recognition is also an inspiration to others to follow suit. Having seen reference to such certifications in real estate listings, I am inclined to see them as an asset to property values and perhaps a small defense against short-sighted HOA landscaping rules.

Is it time for Louisiana conservation groups to grow our own certification program? It was almost 20 years ago while living in Houston that we had our suburban property certified by Texas Parks and Wildlife as a Wildscape. We completed a form with details about our native plants, bird and butterfly sightings, and sources of water management practices. The sign was attached to our side fence and is still there today, several owners later, although this program is now on hiatus. I've looked for a similar

statewide program in Louisiana. If there is not one already in the works or hibernating, maybe the time has come for Louisiana to step up, and LNPS may be the right home for it. I can picture it now: a sign with the text Certified Wildlife Habitat under the Louisiana Native Plant Society logo. Or we can work with conservation partners across the state to create something with a bigger reach. Such a program would, by example, broaden our reach in ANPP and LNPS in promoting the use of native plants in our landscape while also connecting conservation advocates who can feel isolated in their corners of our state. There are more of us out there than our dearth of yard signs and prominent front-yard native flowerbeds would suggest. It could also give us a means by which to reach potential participants for citizen science projects and contribute data about home-grown conservation efforts in Louisiana. In this way we could find out how connected our corridor really is.

If you also think it's time for some visibility, let's see what home-grown options we can support. Until then, consider putting your yard to work for conservation and getting your own place certified. Surely someone's birthday is coming up.

Jackie Duncan, LNPS Treasurer,
114 Harper Ferry,
Boyce, Louisiana 71409

www.lnps.org



Mark Your Calendars!!

Next Louisiana Native Plant
Society Meeting is February
1-3, 2019

Next LNPS Newsletter is
March 20, 2019

Annual LNPS Dues

Circle one: Individual, \$10. Student/Senior, \$5. Family, \$15. Organization, \$25. Sustaining, \$50. Corporate, \$100.

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