

# **Native Plant Society of Texas- Houston Chapter**

## **Native Plant Guide** Updated April 2011

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NPSOT-Houston Newsletters and Seasonal Event Calendar are available at [www.npsot.org/houston](http://www.npsot.org/houston)

# Native Plant Society of Texas-Houston Chapter

## 2011 Meeting Schedule

Meeting begins at 7:00 pm, Presentation at 7:30 pm  
at the Houston Arboretum & Nature Center in Memorial Park (Feb.- Nov.)

*Please Join Us!*

**Jan. 20 Plant Propagation Workshop** at the **Bayland Community Center** From 7 pm to 7:30 pm, Jaime Gonzales, KPC, will provide seeds to grow for Project Blazingstar. At 7:30 pm, Shelly Maher of **the Kika de la Garza Plant Materials Center** in Kingsville, will give a talk that will cover the basics of plant propagation.

**Feb. 17 David Lewis**, President of the Gulf Coast Mycological Society "***Mushrooms and Fungi***"

**Mar. 17 Carolyn Fannon** "***Grasses, Sedges & Rushes and their Wetland Associations***"

**Apr. 21 (Earth Day Celebration): Lisa Gonzalez**, Research Scientist, Houston Advanced Research Center, "***Invasive Plants***"

**May 19 Flo Oxley**, LadyBird Johnson Wildflower Center, "***Sex in the Garden***"

**June 16 Pauline Singleton**, "***The Watson Carnivorous Plants Preserve***"

**July 21 Cherie Foster Colburn**, "***Landscaping With Native Plants***"

**Aug. 18 Dr. Charles Allen**, "***Edible Plants***"

**Sept. 15 Jim Blackburn**, tentative title "***The Relationship Between Ecology, Economics, and Sustainability in Houston's Future***"

**Oct. 13, 14, 15, & 16 2011 Fall NPSOT Symposium**, hosted by Houston Chapter

**Oct. 20 Gary Clark and Kathy Adams Clark**, "***Birds of the Fall Migration***"

**Nov. 17 Annual Plant Swap and Social:** Bring plants to share or just come to enjoy and learn more about natives. Potluck dinner & dessert!

**Dec. 15 Annual Holiday Dinner at Spaghetti Warehouse, 7 pm**

**Jan. 19, 2012 Plant Propagation Workshop** at the **Bayland Community Center**.

[www.npsot.org/houston](http://www.npsot.org/houston)

# Native Plant Society of Texas- Houston Chapter

## 2011 Spring Field Trips

Three field trips are scheduled for Spring 2011. All three trips will be on Sundays and led by Dr. Larry Brown. Please continue to use our new meeting location, the parking lot east of the Memorial Park Arboretum. Please wear appropriate footwear for walking through wet or dry fields, bring drinking water, bug spray, and a lunch if you like. If the weather is drizzling rain, we proceed, but if it is a gully-washer, we still gather at the Arboretum and then cancel. We meet at the Arboretum between 8 and 8:30 AM, and depart promptly at 8:30 AM. Please contact Paul Roling for any additional inquiries: 281-353-7413 or [PRoling \(at\) att.net](mailto:PRoling@att.net).

**Sunday, March 27: George Bush Park.** Just off Interstate 10 on the west side of Houston, about 18 miles from the Arboretum, is a 7800 acre park containing over eleven miles of trails that wander through open areas, woods, and around ponds for a wide variety of spring flowering plants.

**Sunday, April 10: Wallisville Lake Project.** Located east of Houston about 40 miles from the Arboretum, the project contains over 23,000 acres of land on either side of the Trinity River from below I-10 to just south of Moss Bluff. The land is mostly wetlands. There are six parks in the project including Cedar Hill Park and Hugo Point, where we can view the numerous wetland flowers, sedges, rushes, and grasses.

**Sunday, May 1: Telge Park & Little Cypress Creek Preserve.** Northwest of Houston on Telge Road about 22 miles from the Arboretum are two small parks of 111 and 58 acres, respectively. They are just north of Highway 290 and not far from each other. Trails lead to ponds, woods, marshes, and some open areas where we can observe the many flowering plants of spring.

If you want to be added to the NPSOT field trip e-mail list, send an e-mail to [PRoling \(at\) att.net](mailto:PRoling@att.net) requesting to be added to the list. E-mail reminders are sent out about a week before each trip.

[www.NPSOT.org/houston](http://www.NPSOT.org/houston)



# NATIVE PLANT SOCIETY OF TEXAS

The purpose of the Native Plant Society of Texas is promote the conservation, research and utilization of the native plants and plant habitats of Texas, through education, outreach and example.

## ORGANIZATION

The Native Plant Society of Texas ("NPSOT") was founded in 1980 for the purpose of protecting the botanical legacy of Texas. The mission of NPSOT is to promote the conservation, research and utilization of the native plants and plant habitats of Texas, through education, outreach and example.

NPSOT is a nonprofit tax-exempt organization under Section 501(c)(3) of the IRS Code and is funded primarily by the annual dues of its members and by individual and corporate contributions and foundation grants.

At the community level, there are more than twenty-five NPSOT chapters across Texas. Membership is open to individuals, families, groups, and businesses sharing an interest in and an appreciation of the native plants of Texas.

## GOALS

To educate both its members and the general public, and to foster a greater awareness and understanding of our native flora;

To preserve rare and endangered species and their habitats;

To encourage landscaping with appropriate native plants, for their beauty, ease of maintenance, and water-conserving qualities;

To protect, conserve and restore native plants threatened by development;

To encourage the responsible propagation of native plants;

To promote an appreciation and understanding of current, historical and potential uses of native plants.



## NEWSLETTER

All NPSOT members receive a subscription to the Native Plant Society of Texas NEWS. This quarterly publication features original articles on a range of subjects of potential interest to our members: gardening with native species, destinations within Texas special for their native plants, non-technical research papers by eminent plant scientists, propagation notes, news about public programs relating to natives.

The NEWS also includes a calendar of local, regional and national events, book reviews, and a resource list of nurseries and landscape professionals across the state specializing in native plants.

## ANNUAL MEETING

A highlight of the year is the annual members' meeting, held each October in a different vegetational region of Texas. In addition to the regular business meeting, and educational symposium is featured, celebrating the unique flora of that region. An awards banquet, exhibitions, seminars, and field trips within the area complete the weekend program.

## CHAPTER ACTIVITIES

Members are encouraged to join existing chapters, to share their own knowledge and experience and to learn from others.

Individual chapters frequently arrange field trips to parks, preserves, botanical gardens and research centers, in addition to scheduled chapter meetings, plant and seed exchanges, and informal lectures by native plant professionals and knowledgeable amateurs. A number of chapters have also been active in community work projects, plant surveys, habitat restoration, landscaping projects. If you are interested in forming a new chapter where none exists, let us know; the state office can help you get it organized.

## MEMBERSHIP

We invite you to participate as a member of the Native Plant Society of Texas. Membership is open to any individual, family or organization. Membership is renewable annually, and extends for a year from the date we receive your original payment.

If you wish to join, please indicate your category of membership, then clip and mail this application, along with the appropriate remittance, to:

**NATIVE PLANT SOCIETY OF TEXAS**  
**P.O. Box 3017**  
**Fredericksburg, Texas 78624**

Select your membership category:

- New       Renewal
- Student: \$15  
 Senior Individual (65+) \$20  
 Sr. Citizen Couple (one 65+) \$30  
 Individual \$25  
 Couple/Family \$40  
 Group \$50  
 Patron \$100  
 Benefactor \$250  
 Supporting \$500  
 Corporate \$1000  
 Lifetime (one time payment) \$1000



Name \_\_\_\_\_

Address \_\_\_\_\_

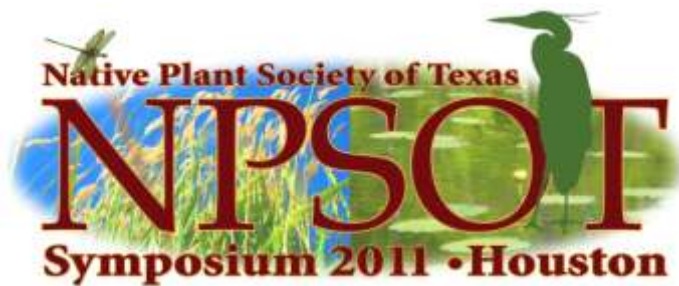
City \_\_\_\_\_

State \_\_\_\_\_ Chapter \_\_\_\_\_

Zip \_\_\_\_\_ Phone \_\_\_\_\_

E-Mail \_\_\_\_\_

[www.npsot.org](http://www.npsot.org)



**31st Annual Native Plant Society Of Texas Fall Symposium**  
**Thursday, October 13 – Sunday, October 16, 2011**  
**Omni Houston Hotel at Westside (13210 Katy Freeway and Eldridge Parkway)**

**“Habitat CPR: Creating, Preserving, and Restoring Native Habitats in a Changing World”**  
**featuring the Coastal Prairies and Marshes of Texas**

Not so long ago in a land not very far away, Red Wolves hunted on prairies ablaze with Coastal Gay-feather and thousands of Whooping Cranes returned to winter on the Gulf Coast. Choruses of Houston Toads resonated through the humid summer nights and the sound of Red-cockaded Woodpeckers hunting for insects echoed throughout the Longleaf Pine forest. The booming ground of the Attwater's Greater Prairie-Chicken was filled with males trying to attract a mate. The high-pitched chirps of Swallow-tailed Kites alerted the smallest of the marsh residents to take cover or risk becoming dinner.

Today, more than 4 million people inhabit these areas, pushing these animals and their habitats to the edge of extinction. While it may be more fashionable to campaign to ‘Save the Whooping Cranes’, the truth is that if we do not ‘Save the Whooping Crane Habitat’, they will have no place to bring their fledgling young for the winter. Although the survival of some species may appear to be more important than others, make no mistake, each species plays a vital role in the intricate web of life and its removal can have a cascading effect on its habitat.

But aren't we too late to repair the damage? No! What can I do? Learn **Habitat CPR!**

**Symposium 2011** will explore the various components of the Texas Coastal Prairies and Marshes and their significance as important eco-habitats. Gardeners will learn how to introduce these habitats and their native plants into the urban landscape as a way to supplement the natural environment, attract wildlife, and maintain a sustainable landscape. In a world of stresses such as climate change, urban sprawl, invasive plants, and general habitat destruction, **Symposium 2011** will provide knowledge on how to re-establish prairie and marsh habitats where they have been compromised.

**Symposium 2011** offers a tremendous opportunity to learn how to restore and preserve our state's rich and diverse native plant communities and is open to anyone interested in the role that native habitats play in our daily lives. In an effort to attract more students and educators, NPSOT will offer scholarships to qualified applicants. Please contact us at [symposium@npsot.org](mailto:symposium@npsot.org) or (830) 997-9272 for more information.

Volunteers wishing to assist with **Symposium 2011** are always welcome! Please contact us at [symposium@npsot.org](mailto:symposium@npsot.org) or (830) 997-9272.

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**For more information about Symposium 2011, please go to [www.npsot.org](http://www.npsot.org)**

# 31st Annual Native Plant Society Of Texas Fall Symposium

Thursday, October 13 – Sunday, October 16, 2011

Omni Houston Hotel at Westside (13210 Katy Freeway and Eldridge Parkway)

**“Habitat CPR: Creating, Preserving, and Restoring Native Habitats in a Changing World”  
featuring the Coastal Prairies and Marshes of Texas**

Special events at **Symposium 2011** will include a photo contest for images of native plants and plant habitats, a dried native plant arrangement competition, a silent auction to raise money for scholarships, and exhibitors sharing native plant and conservation information. Check out [www.npsot.org](http://www.npsot.org) for more information.

Speakers at **Symposium 2011** will include:

- Jaime Gonzalez (Community Education Manager, Katy Prairie Conservancy) will speak on Pocket Prairies and the use of native prairie plants in the urban landscape.
- Mark Kramer (Stewardship Coordinator, Armand Bayou Nature Center) will tell the compelling story of the preservation of the land surrounding Middle Bayou and its transformation into a nature center.
- Dr. Fred Smeins (Range Ecology Professor, Texas A&M University; leading expert on Texas Coastal Prairies and Marshes) will provide an Overview of Ecology of a Coastal Prairie.
- Dr. John Jacob (Professor and Extension Specialist; Director, Texas Coastal Watershed Program; co-author of “Texas Coastal Wetlands Guidebook”) will provide an Overview of Ecology of Coastal Marshes.
- Bill Neiman (Founder and President, Native American Seed) will discuss his ground-breaking work in commercial seed collection of prairie plants and his involvement in native prairie restoration projects.

Friday field trip locations will include:

- Katy Prairie Conservancy lands
- Brazoria County sites
- Nash Prairie in Brazoria County
- Dance Bayou Unit of Brazoria National Wildlife Refuge
- Attwater Prairie Chicken National Wildlife Refuge
- Colorado County Prairie Corridor
- Armand Bayou Nature Center

Authors are invited to submit research papers, general papers on topics of interest, and “How to” articles related to **“Habitat CPR”**. Our diverse audience will include students, educators, professionals, conservationists, and gardeners who are interested in the research, conservation, and utilization of native plants and plant habitats of Texas.

Notification of your intent to submit a paper should be sent to [symposium@npsot.org](mailto:symposium@npsot.org) no later than May 1, 2011.

Please include the following information: paper’s title, a brief description (150 words or less), author’s name, brief biography, and contact information. The Symposium Education Committee will review all proposals and notify authors by June 1st of your status along with instructions for submission of your final paper.

Final papers accepted for inclusion in the **Symposium 2011** Proceedings will be due no later than August 1, 2011.

Selected papers may also be chosen for oral presentation.

For questions, please contact Lonnie Childs, NPSOT **Symposium 2011** Co-Chair, at [symposium@npsot.org](mailto:symposium@npsot.org).

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**For more information about Symposium 2011, please go to [www.npsot.org](http://www.npsot.org)**

**To contact us:**

Email: [symposium@npsot.org](mailto:symposium@npsot.org)

Phone: (830) 997-9272

Mail: NPSOT, P.O. Box 3017, Fredericksburg, Texas 78624



# SOURCES OF *NATIVE PLANTS* IN THE HOUSTON AREA

The nurseries listed below carry a variety of plants, including some native species. The availability of native plants will vary from nursery to nursery and by season.. ***Please call ahead for availability, hours and directions.*** Some nurseries are willing to order specific plants if requested.

**Anderson Landscape & Nursery**  
2222 Pech Road - Houston 77055  
713-984-1342

**Another Place In Time**  
1102 Tulane  
Houston, Texas 77008  
713-864-9717  
[www.anotherplaceintime.com](http://www.anotherplaceintime.com)

**The Arbor Gate**  
15635 FM 2920 – Tomball, TX 77375  
281-351-8851  
[bjw21488@flash.net](mailto:bjw21488@flash.net)  
[www.arborgate.com](http://www.arborgate.com)

**Backyard Gardener**  
5117 N. Main – Houston, TX  
713-880-8004  
[www.backyardgardenerhouston.com](http://www.backyardgardenerhouston.com)

**Bill Bownds Tree Nursery**  
10519 FM 1464 – Richmond 77469  
281-277-2033

**Buchanan's Native Plants**  
611 East 11<sup>th</sup> Street  
Houston 77008  
713-861-5702  
[www.buchanansplants.com](http://www.buchanansplants.com)

**Caldwell Nursery**  
2436 Band Rd. - Rosenberg 77471  
281-342-4016 [salvia123@msn.com](mailto:salvia123@msn.com)

**Doremus Wholesale Nursery**  
2167-CR 1550 Warren, Texas 77664  
409-547-3536 (wholesale only)  
[edoremus@aol.com](mailto:edoremus@aol.com)

**Diane Cabiness  
Native Plant Nursery**  
16889 Rabon Chapel Road  
Montgomery 77316  
936-447-1886 [www.gardenstops.com](http://www.gardenstops.com)  
[dianecabinessplants@consolidated.net](mailto:dianecabinessplants@consolidated.net)

**The Enchanted Forest**  
10611 FM 2759 – Richmond 77469  
281-937-9449  
<http://myenchanted.com>

**Enchanted Gardens Nursery**  
6420 FM 359 Richmond 77469  
281-341-1206  
<http://myenchanted.com>

**Will Fleming  
Landscaping and Nursery**  
37592 Porter Lane  
Hempstead, TX 77445  
866-826-0510 (toll free)

**Hannah Native Grasses, Inc.**  
Flo Hannah 713 956-6303  
[fhannah@wt.net](mailto:fhannah@wt.net)

**Joshua's Native Plants**  
502 West 18<sup>th</sup> Street  
Houston 77008  
713-869-6911  
[www.Joshuasnativeplants.com](http://www.Joshuasnativeplants.com)

**Kingwood Garden Center**  
1216 Stonehollow Dr.  
Kingwood, TX 77339  
281-358-1805  
[www.kingwoodgardencenter.com](http://www.kingwoodgardencenter.com)

**Maas Nursery**  
5511 Todville Road  
Seabrook, Texas 77586  
281-474-2488  
[www.maasnursery.com](http://www.maasnursery.com)

**Mark Fox Landscape &  
Nursery**  
4508 13<sup>th</sup> Street, Bacliff, Tx  
Mail to: P. O. Box 326,  
Seabrook, Tx. 77586  
281-339-3507 cell: 713-542-4069  
[mrkfox00@gmail.com](mailto:mrkfox00@gmail.com)

**Native Enhancements**  
(wholesale and retail)  
[Eruckstuhl@aol.com](mailto:Eruckstuhl@aol.com)  
5800 Ranchester Suite 156 –  
Houston 77036 713-988-8911  
[www.nativeenhancements.com](http://www.nativeenhancements.com)

**Native American Seed**  
Junction, Texas 1-800 728-4043  
[info@seedsources.com](mailto:info@seedsources.com)  
[www.seedsources.com](http://www.seedsources.com)

**Nelson Water Gardens &  
Nursery** 281-391-4769  
1502 Katy Fort Bend Road –  
Katy 77493  
[www.nelsonwatergardens.com](http://www.nelsonwatergardens.com)

**New World Botanical**  
2701 Lone Star Pkwy  
Montgomery, Tx 77356  
936-689-8751  
[martinsimonton@gmail.com](mailto:martinsimonton@gmail.com)

**The Pineywoods Nursery**  
12437 Sleepy Hollow Road  
Conroe, TX 77385  
281-681-2889  
[jasonmckenzie@flex.net](mailto:jasonmckenzie@flex.net)

**RCW Nurseries**  
15809 State Highway 249  
Houston 77086  
281-440-5161  
[www.rcwnurseries.com](http://www.rcwnurseries.com)

**Spring Nursery &  
Landscape, Inc.**  
25252 FM 2978  
Tomball, Texas 77375  
281-357-1800  
[SNandL@aol.com](mailto:SNandL@aol.com)

**Treearch Farms**  
(wholesale only)  
7625 Alabonson Road  
Houston 77088 713-937-9811  
[www.treearchfarms.com](http://www.treearchfarms.com)

This information sheet was prepared by the Native Plant Society of Texas – Houston Chapter. The nurseries listed above are provided for your information only. The list does not imply endorsement by the Native Plant Society of Texas. If you would like more information about Texas natives, we offer monthly speaker/slide programs, field trips, member newsletter, and books. We meet on the third Thursday of most months.

Updated July 2009 Contact [DKnowlesPE@aol.com](mailto:DKnowlesPE@aol.com) for corrections, additions, deletions.

[www.npsot.org/Houston](http://www.npsot.org/Houston)



# NATIVE HOST PLANTS FOR SOUTHEAST TEXAS

## BUTTERFLIES

### Butterfly

Giant Swallowtail.....  
 Pipevine Swallowtail.....  
 Zebra Swallowtail.....  
 Black Swallowtail.....  
 Tiger Swallowtail.....  
 Spicebush Swallowtail.....  
 Palamedes Swallowtail.....  
 Cloudless Sulphur, Sleepy Orange  
 Little Sulphur.....  
 Soapberry Hairstreak.....  
 Banded Hairstreak.....  
 Northern Hairstreak, Horace's Hairstreak  
 Red Banded Hairstreak.....  
 Cedar Hairstreak.....  
 Henry's Elfin.....  
 E. Pine Elfin.....  
 Cassius Blue, Marine Blue.....  
 Snout Butterfly.....  
 Gulf Fritillary and Variegated Fritillary.  
 Texas Crescent.....  
 Phaon Crescent.....  
 American Painted Lady, Pearl Crescent  
 Question Mark.....  
 Red Admiral.....  
 Painted Lady.....  
 Buckeye.....  
 Red Spotted Purple.....  
 Viceroy.....  
 Hackberry Emperor & Tawny Emperor..  
 Little Wood Satyr.....  
 Monarch and Queen .....  
 Long Tailed and Spotted Skippers..  
 Dorantes Longtail.....  
 Wild Indigo and Funeral Duskywings.  
 Common Checkered Skipper.....  
 Swarthy Skipper.....  
 Clouded and Fiery Skippers.....  
 Broad Winged (Marsh) Skipper...  
 Dun Skipper (Sedge Skipper).....  
 Eufala and Common Roadside Skippers

### Plants

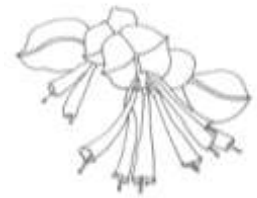
Lime Prickley Ash, Hercules Club, Common Hop Tree  
 Aristolochia species (pipevines) A. erecta, A. reticulata, A. tomentosa  
 Paw Paw (Asimina triloba, A. parviflora)  
 Apiaceae (Prairie Parsley)  
 Ash species, Black Cherry  
 Spicebush, Sassafras, Sweetbay Magnolia  
 Red Bay, Sassafras, Sweetbay Magnolia  
 Senna, Partridge Pea  
 Senna, Partridge Pea, Powderpuff  
 Western Soapberry  
 Oaks, Hickories, Walnuts  
 Oak species ( Bur, Willow, Water, Swamp Chestnut, Red)  
 Sumacs, Southern Wax Myrtle, Croton, Oaks  
 Eastern Red Cedar  
 Redbud, Vaccinium, Hollies, Viburnum, Texas Mountain Laurel, Mexican Buckeye  
 Native Pines (not slash or non-natives)  
 Rattlebox, various legumes  
 Hackberry species  
 Passion flower (Passiflora incarnata, P. foetida, P. lutea)  
 Flame Acanthus, Ruellia, Water Willow  
 Frog Fruit (Phyla incisa)  
 Asteraceae: Asters, Sunflowers, Echinacea, Coreopsis, Eupatorium, Liatris, Rudbeckia  
 Elm, Hackberry species, nettle  
 Nettle (Urtica), False Nettle (Boermeria)  
 Thistle, Mallows (Malvaceae), Hibiscus, Sida  
 Toadflax, Plantain (Plantago), Ruellia  
 Black Cherry, Cottonwood, Hawthorns  
 Willows, Cottonwood, Cherry trees  
 Hackberry species  
 Various grasses  
 Asclepiadaceae, Milkweed species  
 Legumes (Acacia, Baptisia, Mimosa, Sesbania, Senna Sophora, Amorpha)  
 Legumes (Acacia, Baptisia, Mimosa, Sesbania, Senna, Sophora, Amorpha)  
 Baptisia, Lupines, Crown Vetch, Rattlebush,  
 Sidas, Globe-mallows, other Mallows  
 Little Bluestem  
 Grasses  
 Sedges, Marsh Millet  
 Sedges  
 Grasses



**Native Plant Society of Texas – Houston Chapter** [www.npsot.org/houston](http://www.npsot.org/houston)

Prepared by Glenn Olsen from these References: Butterflies of Houston: John & Gloria Tveten, Checklist Of The Vascular Plants Of Texas: Hatch, Gandhi, Brown, Butterflies Of North America: John Feltwell, The Milkweed And Its World Of Animals: Ada and Frank Graham, A Textbook Of Entomology: Herbert H. Ross, Manual of Cultivated Plants: L.H. Bailey  
*This is a partial list; many more native plants are food sources for butterflies & moths!*

# NATIVE VINES FOR THE HOUSTON AREA



Native **Coral Honeysuckle** (*Lonicera sempervirens*) is not aggressive like its cousin the exotic Japanese honeysuckle that smothers everything in its path. Reddish green stems anchor the dark green leaves to form a shrub-like appearance. The leaves clasp the stem. Coral Honeysuckle decorates fences and arbors with elongated red trumpet-shaped flowers with yellow centers. The flowers bloom throughout the year and attract hummingbirds, especially in the winter months. Birds eat the clusters of red or orange berries that appear in September through October. Birds have also been known to nest inside the vine thicket. Coral Honeysuckle can take any kind of soil: sand, loam or clay, even poor drainage. It likes morning sun and afternoon shade. If it gets full sun be sure to shade the roots with plants or rocks.

**Passionflower vine** (*Passiflora incarnata*) has 3 inch lavender blooms that are beautiful, intricate and unique. The flower has numerous wavy filaments that spread out like a lacy parasol. The bloom period is April to September. The medium to dark green leaves are deeply three lobed and are the larval host plant for the colorful (orange with small silver spots) Gulf Fritillary butterfly. The deciduous passionflower will get 10 to 20 feet tall. The fruit looks like a small melon, gets about 4" and is yellow-orange when ripe. The fruit can be eaten raw or made into a drink or jelly.

**Yellow Passionflower vine** (*Passiflora lutea*) has similar flowers: 1 inch cream yellow to greenish yellow. The bloom period is May through September. Yellow Passionflower is a much more delicate vine: reaching about 10 feet with soft, pale green leaves, barely 3 lobed and wider than long. The fruit is a blue-black berry.

**Trumpet Creeper** (*Campsis radicans*) is a vigorous and woody vine, able to climb tall trees and cover fences. Often called trumpet vine or hummingbird vine, it produces orange-red trumpet flowers all summer. Hummingbirds flock to the blooms. The dark green composite leaves, orange flowers, and long seed pods add different textures to the landscape. Trumpet creeper grows in a variety of moist soils, in partial shade to full sun conditions. A variety of cultivars have been developed from the native species and are less aggressive.

**Carolina Jessamine** (*Gelsium sempervirens*) is an evergreen, high climbing vine with long narrow leaves. Carolina Jessamine is spectacular in winter, featuring bright yellow trumpet blooms with a spicy fragrance that last throughout February and March. It can grow in sand, loam or clay with poor drainage.

**Crossvine** (*Bignonia capreolata*) is another hummingbird attractor. The spring trumpet blooms are brick-red on the outside and yellow inside. It can grow in shade or sun.

**Texas Native Grapevines** (*Vitis* species) are great food and habitat sources for birds. Grape vines, which are attractive additions to the landscape, are also useful for providing shade. Common Texas grapes vines include the Mustang Grape, the Muscadine Grape, the Riverbank Grape and the Graybark Grape. Fifteen grape species are native to Texas.

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# NATIVE PLANTS FOR EROSION CONTROL

**Vegetation** is one of the most important defenses for controlling erosion. Plants function in two primary ways in this battle. First are the root systems that pervade the subsurface and help to hold the soils in place. Second is the ability of the foliage to intercept and dissipate the energy of the rain before it strikes the soil. Most of the suggested plants have desirable root architecture for stabilizing the soil. The remainder are recommended for their ability to grow in difficult conditions such as dense shade or saturated soils.

## TREES AND SHRUBS

**River Birch** *Betula nigra* Tolerates sandy soils and streamside conditions. Will tolerate sun or shade.

**Green Ash** *Fraxinus pennsylvanica* Green Ash has been determined to have the best root architecture for erosion control. They are long-lived and tolerate a wide range of soils.

**Gulf Black Willow** *Salix nigra* Provides excellent soil holding ability and grows fast.

**Bald Cypress** *Taxodium distichum* One of the longest lived of all trees, Bald Cypress has the ability to grow in wet or dry soils such as can occur in streamside conditions. The root system does an excellent job of stabilizing saturated soils and resists blowing over even in strong winds.

**Rough-leaf Dogwood** *Cornus drummondii*

Quite different from its more well known cousin Flowering Dogwood *Cornus florida*, Rough-leaf Dogwood tolerates full sun and a much wider range of soils and tends to thicket with an interconnected root system which gives great soil stabilization.

**Elderberry** *Sambucus Canadensis* A semi-woody shrub that frequently forms a small short-lived tree. Its soil stabilizing ability results from its propensity to spread by underground stems forming large colonies.

**Florida Anise** *Illicium floridanum* Native evergreen shrub with unusual red flowers. It will tolerate dense shade and prefers saturated soils.

**Coral Berry** *Symphoricarpos orbiculatus* This deciduous shrub will tolerate a wide range of soils and exposures. It will tolerate considerable shade. It tends to colonize by underground stems, which is a characteristic favorable for erosion control.

**Florida Leucothoe** *Leucothoe populifolia* (also known as *Agarista populifolia*) A beautiful evergreen that may reach ten feet and is tolerant of shade and wet soils. Its dense growth and spread from underground stems makes it useful for soil stabilization that most difficult combination of dense shade and wet soils.

**Virginia Sweetpire** *Itea virginica* A deciduous shrub that often gets beautiful red coloration in the fall. The fragrant tassels of white flowers are an added bonus in this native that adapts well in moist soils. Like many shrubs that perform well for soil stabilization, it colonizes well by underground stems.

**Southern Dewberry** *Rubus trivialis* Dewberry forms extremely dense mats of tangled stems and foliage that both shield the soil from hard rains and hold highly erodible soils such as pure streamside sands. Dewberries are edible to humans and wildlife.

## HERBACEOUS PERENNIALS

**Obedient Plant** *Physostegia* spp. *Physostegia angustifolia* blooms in April, while the better known *Physostegia virginiana* is an early fall bloomer. The indigenous *Physostegia praemorsa* is native here in Harris County. Each of these species provide good soil holding ability due to their dense spreading habits that go through the winter as evergreen ground-hugging rosettes.

**Pigeonberry** *Rivina humilis* Related to 'Poke Salad' *Phytolacca americana*, this is a great groundcover for partial sun to shade. Pigeonberry plants have fluffy bloom spikes that rapidly turn into attractive berries that are adored by birds. In sunnier positions, the foliage develops an attractive red tint.

**Frog fruit** *Physla incisa* Frog fruit will grow almost anywhere, from standing water to crawling out over asphalt. It is a mat forming evergreen in the Verbena family.

**Mallows** *Hibiscus* spp. Several of the native species of Hibiscus have extensive fleshy root systems that are effective in soil stabilization. Species include *Hibiscus coccineus*, *H. moscheutos*, *H. militaris*, *H. aculeatus*, and *Kosteletzkya virginica*

## Native Plants That Provide a Food Source for

# Hummingbirds

This is only a partial list. Hummingbirds use many other native plants.  
Many of these species are available at native plant nurseries.

### Flowers: (herbaceous)

Cardinal Flower (*Lobelia cardinalis*)  
Blue sage (*Salvia azurea*)  
Scarlet sage (*Salvia coccinea*)  
Beebalm (*Monarda citriodora*, *M. fistulosa*, *M. punctata*, *M. lindheimeri*)  
Sunflowers (*Helianthus* sp.)  
Arkansas yucca (*Yucca arkansana*)  
Milkweed (*Asclepias tuberosa*)  
Carolina Larkspur (*Delphinium carolinianum*)  
Columbine (*Aquilegia canadensis* A. *hinckleyana*)  
Cupleaf Penstemon (*P. murrayanus*)  
Foxglove- Purple Beard Tongue (*Penstemon cobaea*)  
Gulf Coast Penstemon (*Penstemon tenuis*)  
Gayfeather (*Liatris* species)  
Fall Obedient Plant (*Physostegia virginiana*)  
Standing Cypress (*Ipomopsis rubra*)  
Lyre leaf sage (*Salvia lyrata*)

### Shrubs: (woody)

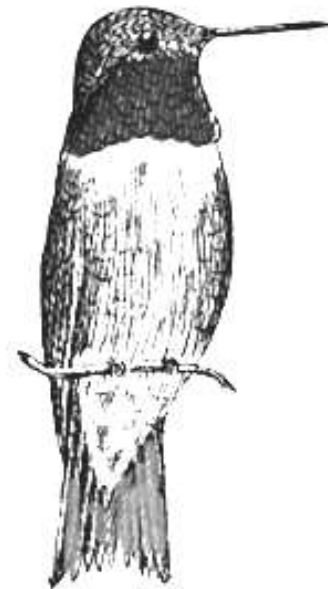
Texas Lantana (*Lantana urticoides*)  
Turk's Cap (*Malvaviscus arboreus drummondii*)  
Indigo bush (*Amorpha fruticosa*)  
Eastern Coral Bean (*Erythrina herbacea*)

### Vines:

Coral Honeysuckle (*Lonicera sempervirens*)  
Crossvine (*Bignonia capreolata*)  
Trumpet Creeper (*Campsis radicans*)  
Carolina Jessamine (*Gelsemium sempervirens*)

### Trees:

American Elderberry (*Sambucus canadensis*)  
Flowering Dogwood (*Cornus florida*)  
Eastern Redbud (*Cercis canadensis*)  
Green Hawthorn (*Crateagus viridis*)  
Red Buckeye (*Aesculus pavia*)  
Wild Black Cherry (*Prunus serotina*)



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# BEWARE:

## ***There May Be Invasive Plants in Your Backyard***

### Help Stop the Spread of America's Worst Weeds

The Nature Conservancy is asking Americans to check their yards and gardens for plants that can escape cultivation and cause tremendous damage to the natural environment and the local economy.

Plants such as privet, Japanese honeysuckle, eleagnus, ligustrum, nandina, Chinese tallow, kudzu and Chinese wisteria have been used widely in horticulture and landscaping, and can be found in backyards and business lots across the region. At first glance these plants may look pretty, but their beauty is deceptive. Known as invasive species, plants like these are typically transplants from distant places. Once free from the natural checks and balances in their native habitats, these alien invaders establish themselves in new areas and quickly spread out of control. They hoard light, water and nutrients, and can alter entire ecosystems by displacing native species, altering fire regimes and changing soil chemistry.

With intentional and unintentional assistance from people, these problematic plants are spreading at an alarming rate, infecting natural areas across the United States.

"Keeping invasive plants out of America's backyards helps the environment and the economy," said Steve McCormick, president of The Nature Conservancy. "Taking the time to remove invasive plants and replace them with non-invasive varieties is a great example of bringing new energy to the old adage: think globally, act locally."

Because many invasive plants are spread by unsuspecting gardeners, it is important to learn about invasives before shopping at local nurseries. Check websites such as [www.invasive.org](http://www.invasive.org) for the latest on invasives. This site lists the worst invasive plants for each region of the country. If you see one of these plants at your local nursery, do not buy it, and talk to the nursery owner about discontinuing its sale. It is important to control invasives and prevent them from destroying natural ecosystems.

Texas has many beautiful native trees and flowers that look stunning in a garden setting and do not add to the invasives problem. Information about many natives can be found at <http://aggie-horticulture.tamu.edu/ornamentals/natives/tamuhort.html> and [www.npsot.org](http://www.npsot.org). Native plants are right at home in Texas' soils and climate, so they require less watering and fertilization to thrive.

On the national level, The Nature Conservancy is working with nursery and horticulture groups to identify invasives that might voluntarily be removed from the market. "Nursery growers, landscape designers and others who make their career in horticulture have become increasingly concerned with the problems related to invasive plants," said Wayne Mezitt, board member and past president of the American Nursery & Landscape Association (ANLA), and owner of Weston Nurseries in Massachusetts. "We see our role as educators, helping our customers and the public, as well as fellow nursery folk across the country, understand how invasive plants impact them."

The threat posed by invasive species – both plant and animal – to the survival of native species is exceeded only by the threat of habitat loss. *The cost to the national economy is estimated as high as \$137 billion per year, due primarily to losses in agriculture, forestry and fisheries, as well as the cost of clearing invasive-clogged waterways and fighting invasive-fueled fires.*

**You can help stop the introduction and spread of invasive species. Help protect native plants and animals by following these six easy guidelines:**

1. **Verify** that the plants you are buying for your yard or garden are **not invasive**. Replace invasive plants in your garden with non-invasive alternatives. Non native plants that reproduce can become invasive.
2. When boating, **clean** your boat thoroughly before transporting it to a different body of water.
3. Clean your boots before you hike in a new area to get rid of **hitchhiking weed** seeds and pathogens.
4. Don't "**pack a pest**" when traveling. Fruits and vegetables, plants, insects and animals can carry pests or become invasive themselves.
5. **Don't release** aquarium fish and plants, live bait or other exotic animals into the wild.
6. Volunteer at your local park, refuge or other wildlife area to help **remove invasive species**. Help **educate** others about the threat.

*This page has been prepared from Nature Conservancy publications and is presented by the Native Plant Society of Texas- Houston Chapter. [www.npsot.org/houston](http://www.npsot.org/houston)*

# Invasives Q&A

Native Plant Society of Texas- Houston Chapter

[www.npsot.org](http://www.npsot.org)

Information from <http://www.nature.org/wherewework/northamerica/states/arkansas/files/invasivesqa.pdf>



## **QUESTION: What is an invasive species?**

**ANSWER:** Invasive species are those plants, animals and other organisms that are introduced into new areas, where, free from their natural competitors, they are able to proliferate and persist to the detriment of the native environment. Impacts from invasive species may include widespread harm to the environment, the economy and human health.

## **QUESTION: What is a non-native plant?**

**ANSWER:** This depends on where you are. In the USA, we usually define non-native plants as those which have arrived since the time of European contact. But on closer inspection, the issue is actually much more complicated. For example, humans may transplant USA species to regions outside of their native range, but which are still within the USA. For example, a California poppy growing in Alabama would be considered a non-native plant.

## **QUESTION: Are all invasive species non-native?**

**ANSWER:** Not always. Occasionally a native plant may start acting like an invasive species. Usually this is because of some human-caused habitat change. One example would be a change in water quality because of agricultural runoff; another might be the abnormal suppression of fire. In these situations, fixing the underlying environmental problem would be the best solution.

## **QUESTION: Why not just let them be?**

**ANSWER:** If the weeds do not harm the native biodiversity, we do not expend our precious resources of money, staff, and volunteers in fighting them. But if the non-native plants harm native plants and animals, we are compelled to take action. If we did nothing, we would decrease the effectiveness of our work.

## **QUESTION: How do weeds harm native plants and animals?**

**ANSWER:** Thick growths of non-native weeds can displace the native plants that once provided food and shelter for the native animals. As weed populations rise, native species populations fall. The worst weeds even change the character of the entire habitat by changing important processes like fire, nutrient flow, flooding, etc.

## **QUESTION: How do invasive species behave in their native lands?**

**ANSWER:** In their native habitats, these species are quite often found in small, well-behaved populations. This is because they occur with other organisms that keep the plant populations in balance. It is not until the species are removed from their habitat that their invasive characters emerge.

## **QUESTION: Are all invasive species plants?**

**ANSWER:** No. In fact, some of the worst invasive species are animals. The effects of zebra mussels, feral pigs, and many other non-plant invaders are devastating to native biodiversity.

## **QUESTION: Why do these invasive plant species explode in population?**

**ANSWER:** Recall that the invaders are usually non-native species. Free from the herbivores and parasites which keep them in check in their native range, they reproduce rapidly. They increase their numbers, unfettered by natural controls. They displace the native plants. When the populations of native plants are reduced, the animals that depend upon them may perish. The functions of the entire ecosystem are disrupted. Invasive species are truly a form of biological pollution.

## **QUESTION: Doesn't the addition of a non-native species increase biodiversity (i.e. species diversity)?**

**ANSWER:** Yes, if you are only concerned about the number of species in the short term. No, if you want to maintain the natural array species unique to an area. Consider, for example, the rosy wolfsnail of the southeastern USA. This was introduced by humans to Hawai'i, Mauritius, and other islands in the Pacific and Indian Oceans. Global biodiversity did not benefit by this introduction. The rosy wolfsnail began killing native snails. Ultimately, it was responsible for driving to extinction dozens of snail species. Both local and global biodiversity suffered. Invasive species are usually existing perfectly well in their native lands. Introducing them to new habitats does them no good, and risks the integrity of native ecosystems.

## **QUESTION: Plants move around naturally---isn't the arrival of new plants a natural process?**

**ANSWER:** It is true that plants do change their ranges, usually over periods of thousands of years. We are not concerned with these slow changes. The invasions we are worried about are the ones that humans have caused, and which are resulting in the suffering in our native biodiversity.

## **QUESTION: What is the solution the problem of invasive plants, particularly those that can be found in yards in gardens?**

**ANSWER:** The solution is a combination of removing invasive plants, preventing new introductions, and restoring native habitats. The survival of native species depends upon our actions.

# TOP 100 NATIVE PLANTS

## FOR HARRIS AND ADJACENT COUNTIES

These **Native Plants** are recommended based upon a combination of their regional suitability for **landscaping AND** their value to **wildlife**. These plants grow well in the soil conditions of Harris and surrounding counties, including gumbo, AND provide value to wildlife such as birds, butterflies and beneficial insects. Each species is hardy for the Gulf Coast climate. Most plants do not require fertilizing, or any special treatment, except proper care until established. Naturally, if the plant becomes stressed or diseased special treatment is recommended. Please see other references for growth characteristics (height, width, evergreen, etc.) and appropriate planting conditions (sun, shade, moisture, etc.) for each species. Appropriate planting yields a healthier and more attractive plant.

**Ten Big Trees:** Swamp Chestnut Oak, Water Oak, Willow Oak, Wild Black Cherry, Black Gum, Loblolly Pine, Hackberry, Bald Cypress, Sweetgum, Red Mulberry

**Ten Small Trees:** Mexican Plum, American Holly, Drummond Red Maple, Cherry Laurel, Eastern Redbud, Green Hawthorn, Carolina Buckthorn, Rusty Black-haw Viburnum, Farkleberry, American Fringe Tree

**Ten Large Woody Shrubs** (can grow to small tree size): Southern Wax Myrtle, Deciduous Holly, Yaupon Holly, Rough Leaf Dogwood, American Elderberry, Flame Leaf Sumac, Parsley Hawthorn, Black Willow, Coral Bean, Buttonbush

**Ten Small Shrubs:** American Beautyberry, Dwarf Palmetto, Texas Lantana, Possum-haw Viburnum, Virginia Sweetpire, Red Chokecherry, Spider Lilly, Fragrant Sumac, Parsley Hawthorn, Yellow Sophora

**Ten Perennials For Sun:** Purple Coneflower, Scarlet Sage, Maximilian Sunflower, Kansas Gayfeather, Eastern Gamagrass, Switch Grass, Indian Grass, Pink Evening Primrose, Guara, Giant Coneflower

**Ten Perennials For Shade:** Turk's Cap, Strawberry Bush, Cardinal Flower, Farkleberry, Blue Mistflower, Big Thicket Hibiscus, Gulf Coast Penstemon, Spring Obedient Plant, Fall Obedient Plant, Arkansas Yucca

**Ten Vines For Sun:** Coral Honeysuckle, Purple Passionflower, Carolina Jessamine, Carolina Snailseed, Globe Berry, Common Greenbriar, Mustang Grape, Prairie Rose, Trumpet Creeper, Curly Clematis

**Ten Vines For Shade:** Virginia Creeper, Cross Vine, Yellow Passionflower, Saw Greenbriar, Woolly Pipevine, Texas Dutchman's Pipe, Pitcher Clematis, Leather Clematis, Climbing Milkweed, Virginia Dutchman's Pipe

**Ten Groundcovers For Sun:** Frog Fruit, Knotroot Bristlegrass, Gulf Coast Muhly, Prairie Verbena, Little Bluestem, Indian Blanket, Winecup, Fern Acacia, Purple Groundcherry, Scarlet Sage

**Ten Groundcovers For Shade:** Pigeonberry, Coralberry, Wood Fern, Spiderwort, Maidenhair Fern, Horseherb, Carolina Elephant Foot, Partridgeberry, White Avens, Missouri Violet

### References:

*Checklist of the Vascular Plants of Texas*, by Hatch, Gandhi, Brown, *American Wildlife & Plants: A Guide to Wildlife Food Habits*, by Martin, Zim, Nelson, *Butterflies of Houston & Southeast Texas*, by John and Gloria Tveten, *Trees Shrubs and Woody Vines of the Southwest*, by R. A. Vines, *Native Texas Plants Landscaping Region by Region*, by Wasowski, *Atlas of the Vascular Plants of Texas*, by Turner, Nichols, Denny, Doron, *Guide to Native Trees, Shrubs & Vines*, Published by Houston Chapter of NPSOT, *Life Histories of North American Birds*, by A. C. Bent, *A Checklist of the Native and Naturalized Plants of Houston and Vicinity*, by R.A Vines and Frederick W. Thurow, Informal Survey of Some Chapter Members with Personal Observations of the Compiler; Compiled for the Native Plant Society of Texas - Houston Chapter by Glenn Olsen from an informal survey of chapter members and the references listed above. August 2004 [WWW.NPSOT.org/houston](http://WWW.NPSOT.org/houston)



# ***DROUGHT TOLERANT*** *Native Plants*

## **TREES:**

**Texas Persimmon** (*Diospyros texana*), a deciduous tree, grows to 35 feet, white blooms in Spring, good fall color.

In spring the **Two-Winged Silverbell** tree (*Halesia diptera*) has dainty white bell-shaped flowers, loved by hummingbirds. Silverbell, native to SE Texas, grows to 30 feet, likes well-drained soil and has yellow fall color.

**Short Leaf Pine** (*Pinus echinata*) is a medium to large tree, growing to over 100 feet tall.

**Loblolly Pine** (*Pinus taeda*) is evergreen and grows to 110 feet.

**Long Leaf Pine** (*Pinus palustris*) provides good wildlife habitat, grows to over 100 feet tall, long lived.

**Cedar Elm** (*Ulmus Crassifolia*) is a medium sized tree to 60 feet, with the smallest leaves of our native elms and is used as an ornamental shade tree.

**Mexican Buckeye** (*Ungnadia speciosa*) has fragrant pink flowers in Spring, attractive compound leaves in the summer, interesting fruits, yellow fall color, and brown speckled bark in winter. Buckeye typically grows as an understory tree in the Pineywoods, but it is also found on the Post Oak Savannah, Blackland Prairies and Edwards Plateau.

## **SHRUBS:**

**Butterfly Weed** (*Asclepias tuberosa*) has clusters of brilliant orange flowers from April to November. It is extremely drought tolerant but needs excellent drainage with very sandy soil. Butterflies, particularly monarchs, love it. **Green Milkweed** (*Asclepias viridis*) has green flowers.

**St. Andrew's Cross** (*Ascyrum hypericoides*) is a small shrub with yellow flowers that bloom June to September.

**Yaupon Holly** (*Ilex vomitoria*) is an area-native evergreen shrub or small tree to 25' with stiff branches that make a dense cover that birds like to nest in. Yaupon can tolerate sun or shade and wet or dry soil. Red berries are attract many birds including woodpeckers and songbirds.

**Wax Myrtle** (*Myrica cerifera*) is an evergreen shrub or small tree up to 19 feet that is extremely drought tolerant when established. The leaves have a pleasant scent when crushed. The tiny 1/8" gray berries are eaten by 40 different species of birds. This tough local native can grow in sun or shade and wet or dry soil. **Dwarf Wax Myrtle** (*Myrica pusilla*) grows to under six feet tall and requires dry soil.

**Native Texas Lantana** (*lantana horrida*) has bright yellow and orange flowers and leaves that are smaller than the invasive alien lantana camara.

**Scarlet Sage or Tropical Salvia** (*Salvia coccinea*) has spikes of red, orange, pink, coral or white blooms from spring to frost. **Mealy Blue Sage or Blue Salvia** (*Salvia farinacea*), a prairie plant, has 3 to 9 inch spikes of blue flowers that bloom continually from spring to frost

**Gulf Coast Laurel or Yellow Sophora** (*Sophora tomentosa*) has velvety, silvery compound leaves. It only grows along the Gulf Coast and needs a sheltered location so it doesn't freeze. Gulf Coast Laurel blooms from April to November with yellow blooms that last a long time and seed pods that stay on the plant.

**Coral Berry** (*Symphoricarpos orbiculatus*) blooms midsummer and has distinctive red berries. Coralberry is attractive to butterflies and birds.

**Arkansas yucca** (*Yucca arkansana*), native from South Central to North Central Texas, grow 1 to 2 feet tall with tall bloom stalks bearing clusters of white bells.



Little Bluestem

# Native Grasses

## *for Your Landscape*

Native grasses provide food and shelter for birds and other wildlife. Dragonflies use grass stems for perches. Insects, lizards, and toads use the clumps of grass as shelter, especially in the winter. Birds find the grass seed particularly appetizing in the fall and winter, when other foods are scarce. Birds also utilize the grass blades as nesting material in the spring. Insects, spiders, toads and lizards - even snakes - are important ingredients to any healthy prairie, yard or ecosystem, so please refrain from using pesticides and insecticides. Many grasses are host plants for butterflies and moths.

The “Big Four” tallgrass prairie grasses are Big bluestem, Little bluestem, Yellow Indiangrass and Switchgrass. These are warm season grasses and provide excellent benefits for wildlife.

**Big bluestem** (*Andropogon gerardii*) Also known as “turkeyfoot” grass, big bluestem is the king of tallgrass prairies. There’s no mistaking this trademark grass with its turkeyfoot-like branches. It can reach heights of 6 to 9 feet in optimal conditions.

**Little bluestem** (*Schizachyrium scoparium*) A tufted perennial bunchgrass, little bluestem changes colors with the seasons and reaches a height of 5 feet or more.

**Switchgrass** (*Panicum virgatum*) Switchgrass forms large clumps, sometimes 6 feet high and more than 6 – 8 feet wide. Switchgrass can be used in wet areas, too – around ponds and creeks or low spots.

**Yellow Indiangrass** (*Sorghastrum nutans*) This beautiful and important prairie grass reaches a height of 6 feet. Once a dominant prairie grass, Indiangrass is evidence of a quality prairie. Indiangrass/switchgrass and Indiangrass/bluestem plant communities are among the most imperiled ecosystems on earth.

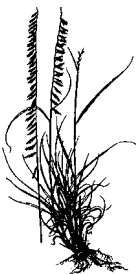
**Gulf muhly** (*Muhlenbergia capillaris*) Gulf muhly provides some of the showiest seasonal colors. The seed stalks turn a beautiful feathery pink in fall and then become a cream or straw color in winter. Gulf muhly is only about knee-high, with an airy shape, so you have several choices about how or where to use it. Have you ever seen it in the wild around Houston spangled with seaside goldenrod or yellow composites? Just gorgeous!

**Eastern gamagrass** (*Tripsacum dactyloides*) Gamagrass is a handsome grass growing 8 feet tall. The leaves are bright green even during a drought. Gamagrass is a cool season grass, so it blooms early, goes dormant, and blooms again in fall. The inflorescence is wonderfully interesting. The large segmented seeds are striking.

**Inland sea oats** (*Chasmanthium latifolium*) Inland sea oats prefers partial shade areas. It can grow 2-3 feet tall. The drooping seeds resemble golden oats when ripe and are eaten by a variety of wildlife.

**Sugarcane Plumegrass** (*Erianthus giganteus*) Sugarcane plumegrass can reach 6 –10 feet tall with large, fluffy white plumes. It grows naturally at the edge of large ponds and wetlands.

**Sideoats grama** (*Bouteloua curtipendula*) Sideoats grama is the state grass of Texas. This grass usually reaches a height of 2 – 3 feet, but can grow 5 feet or more. It prefers partial or dappled shade. It is an excellent food source for birds.



Sideoats grama

Native grasses can be gorgeous when in bloom. They add graceful texture to a landscape. You can plant them in large containers as accents or plant several acres of them. Native grasses prevent erosion and improve soil. Grasses have extensive fibrous root systems that can go down 17 feet or more. Native grasses can be cut, mowed or left alone. Most of the grasses listed here mature and bear seed in the fall. For continuous color, plant wildflowers along with the grasses for spring and summer color until your grasses bloom in September. The grasses will be especially colorful in October and your landscape will be ever changing and richly diverse.

# Native Trees

## *That Thrive in Poorly Drained Black Gumbo Soil*

**Bald Cypress** (*Taxodium distichum*) is a long-lived shade tree (to 100') with feathery leaves and yellow-to-rust fall color. Leaves fall for the winter. The fruit is a 1" round cone.

**Swamp Chestnut Oak's** (*Quercus michauxii*) leaves turn bright red in the fall. This long-lived shade tree can grow to 80 feet. It can take standing water for up to a week. A beautiful tree.

**Water Oak** (*Quercus nigra*) is semi-evergreen which means that the leaves stay on in warm winters and fall off in cold. This shade tree grows rapidly to 30' with three different leaf shapes.

**Willow Oak** (*Quercus phellos*) has long, narrow willow-like leaves so there's not much to rake in fall.

**River Birch** (*Betula nigra*) is a lovely shade tree which grows to a height of 90 ft. and has triangular leaves rounded on the bottom which turn yellow in the fall. The flaking bark is outstanding. Saplings have red cherry-like bark and later peachy-white flaking to reveal darker peach-colored bark.

**Black Gum** (*Nyssa sylvatica*) is a large shade tree to 100 feet with short crooked branches which come off the trunk at right angles. It turns bright red in early fall (sometimes even in August). Female black gum trees bear 1/2 inch black berries which birds relish.

**Drummond Red Maple** (*Acer rubrum* var. *drummondii*) is a large shade tree to 90 feet tall. It grows fast but can live 50 years and features red flowers in January on males, and red winged fruits on females in spring called samaras. If the winter weather is cold enough, Drummond red maple leaves turn yellow then red before falling.

**Green Ash** (*Fraxinus pennsylvanica*) is a fast growing shade tree to 50' with yellow fall color. Female Green Ashes have bunches of green matchstick-sized fruit which birds love.

**Fringe Tree** (*Chioanthus virginicus*) is an understory tree that blooms in spring with fragrant long-petaled white flowers that look like a fringe all over the tree. The leaves are 4 to 8 inches long.

**Parsley Hawthorn** (*Crataegus marshallii*) is an understory tree to 20 feet whose leaves look like parsley. This thorny tree has sparkling white flowers in spring with pink stamens, followed by red 1/3 inch fruit in the fall which birds and small mammals love, and yellow fall color. The gray bark flakes to reveal the orange inner bark. Butterfly larvae eat the foliage and birds like to nest in the tree.

**Rough-leaf Dogwood** (*Cornus drummondii*) is very different from its "cousin" the showy flowering dogwood (*Cornus florida*). The rough-leaf dogwood has clusters of white blooms in spring rather than the large white bracts of its cousin. This suckering tree has white berries in the fall.

**Snowbell** (*Styrax americana*) is a small shade tolerant (moist , acidic soils) ornamental tree with oval leaves that only gets 10 feet high. It has white blooms all over the tree in spring that hang downward showing the yellow stamens.

**Indigo-bush Amorpha or False Indigo** (*Amorpha fruticosa*) is an understory tree with small compound leaves and 4-8 inch spikes of purple flowers with electric orange anthers in spring. It gets 5 to 10 feet high and is good for erosion control.

**Sweetbay Magnolia** (*Magnolia virginiana*) is much smaller than the Southern Magnolia and likes swampy places. It has the same fragrant white flowers in spring but smaller (2"-3"). This understory tree is semi-evergreen, the leaves have white undersides.

# Native Shrubs

*That Thrive in Poorly Drained Black Gumbo Soil*

**Strawberry Bush** (*Euonymus americana*) is named after its fruit which resemble strawberries (not edible). The one" scarlet fruits remain through fall, splitting open to show orange-red seeds. This upright shrub has green stems and deciduous leaves that turn bright red in the fall.

**Wax Myrtle** (*Myrica cerifera*) is an evergreen shrub or small tree to 18'. The leaves have a pleasant scent when brushed against. The tiny 1/8" gray berries on females are eaten by 40 different species of birds and the wax on the berries is used to make bayberry candles. This tough area native can grow in sun or shade and wet or dry soil. Its a very fast grower - just add water. It will also sucker to form a thicket.

**Buttonbush** (*Cephalanthus occidentalis*) is a deciduous shrub that lives in shallow water (up to 6") or plant in the ground. If you want butterflies get Buttonbush. The late May to fall repeat blooms are perfectly round white balls with a heavy perfume. The bark has a speckled appearance and the fall nutlets are a favorite of waterfowl.

**Virginia Sweetspire** (*Itea virginica*) has fragrant drooping white spires in spring. This 5' shrub has fall color ranging from yellow, orange, red and purple; in mild winters you get to enjoy these changing colors until spring.

**Yaupon Holly** (*Ilex vomitoria*) is an area-native evergreen shrub or small tree to 25' with stiff branches that make a dense cover that birds like to nest in. The birds like to eat the translucent red berries which are hard so they leave them on the tree all winter. Yaupon is so adaptable it tolerates sun or shade and wet or dry soil. There is also a yellow-berried form.

**Possumhaw Holly** (*Ilex decidua*) loses its leaves and is bare all winter. However, the female shrub or small tree is loaded with red berries all winter and is a standout.

**Ti-Ti** ("tye-tye") or **Leatherwood** (*Cyrilla racemiflora*) is an outstanding semi-evergreen shrub that will grow in standing water (up to 6") or planted in the ground. In late May the fragrant white flower spikes look like petticoats. In summer the fruits turn rust color or ivory. In fall some of the leaves turn bright red and stay on the bush making a colorful picture.

**Dwarf Palmetto** (*Sabal minor*) is a hardy, evergreen, fan-shaped palm. The stems are underground and the large leaves can reach 5'. It sends up a long bloom stalk to 6', with a spray of fragrant whitish blooms then it has fruit like black grapes which birds devour.

**Possumhaw Viburnum** (*Viburnum nudum*) has white flower clusters in March which turn into clusters of tiny pink, then blue-black fruit which taste like raisins. Birds love the fruits too. Possumhaw has outstanding wine-red fall color.

**Salt Marsh Mallow** (*Kosteletzkya virginica*) upright, branching shrub to 6 feet; The mallow grows in wet, often saline soils. It forms dense showy clumps and the gray-green pointed leaves are fuzzy. 2 to 3" pink hibiscus-like flowers bloom from June-November and attract hummingbirds and swallowtail butterflies.



# TREES that attract *BIRDS*

Drummond Red Maple

*Acer Rubrum var. drummondii*

Red Buckeye *Aesculus pavia*

Gum Bumelia *Bumelia lanuginosa*

American Hornbeam *Carpinus caroliniana*

Sugarberry *Celtis laevigata*

Flowering Dogwood *Cornus florida*

Green Haw *Crataegus viridis*

Anaqua *Ehretia anacua*

Dahoon Holly *Ilex cassine*

Deciduous Holly *Ilex decidua*

Ink-berry Holly *Ilex glabra*

American Holly *Ilex opaca*

Winterberry Holly *Ilex verticillata*

Yaupon Holly *Ilex vomitoria*

Sweetgum *Liquidambar styraciflua*

Southern Magnolia *Magnolia grandiflora*

Sweet Bay Magnolia *Magnolia virginiana*

Pyramid Magnolia *Magnolia pyramidalis*

Wild-crab-apple *Malus angustifolia*

Red Mulberry *Morus rubra*

Water Tupelo *Nyssa aquatica*

Black Gum *Nyssa sylvatica*

Hop Hornbeam *Ostrya virginiana*

Red Bay *Persea borbonia*

Honey Mesquite *Prosopis glandulosa*

Cherry-laurel *Prunus caroliniana*

Mexican Plum *Prunus mexicana*

Black Cherry *Prunus serotina*

Flatwoods Plum *Prunus umbellata*

Buckthorn *Rhamnus caroliniana*

Flame leaf Sumac *Rhus copallina*

Smooth Sumac *Rhus glabra*

Sassafras *Sassafras albidum*

Winged Elm *Ulmus alata*

American Elm *Ulmus americana*

Cedar Elm *Ulmus crassifolia*

Slippery Elm *Ulmus rubra*

Farkleberry *Vaccinium arboreum*

Arrow-wood *Viburnum dentatum*

Rusty Black-haw *Viburnum rufidulum*

# Native Plants for Shady Areas

**American Beautyberry (*Callicarpa americana*)** deciduous shrub, 4 to 8 feet height; This shrub has a sprawling effect and does quite well in the shade. Although this shrub prefers moist, well-drained soil, it can withstand drought conditions with minimal watering. Beautyberry adapts to many soil types, including clay. Bright magenta berries cluster all around the stem in late summer and last until the birds eat them all. This shrub adds wonderful color to a late summer landscape, as well as nice texture with its airy effect. The fall migrant robins and cedar waxwings, as well as the resident mockingbirds and blue jays love the berries as they ripen in the fall.

**Pigeonberry (*Rivina humilis*)** perennial groundcover, 1 to 2 feet height; This perennial is absolutely fabulous to brighten up a shady area. It does well under drought conditions. Pigeonberry is often seen growing in the wild at the base of a large tree or shrub. With supplemental water, pigeonberry may achieve a thicker groundcover. This perennial is not a large plant, so it does not stand out when viewed from a distance, but a grouped arrangement adds beautiful color and texture to a shade garden. Pigeonberry holds a reddish tinge all year and creates a wispy texture. It features pink or white blooms and red berries which are a favorite

**Turk's Cap (*Malvaviscus arboreus*)** deciduous perennial shrub, 2 to 4 feet height with spreading branches 8 -12 feet wide. This shrub can handle most conditions, although it survives a drought much better with a little supplemental watering in shade or partial shade. If grown in full sun locations, it will need additional watering to perk it up during long, dry periods. The deep red tubular blooms start as early as March, if the winter was mild. The shrub will bloom almost non-stop throughout the year. It will freeze back somewhat in the winter and will spread to 12 feet if not pruned back. This shrub is a favorite nectar source for hummingbirds and swallowtail butterflies.

**Pokeberry, Poke-Salad (*Phytolacca americana*)** perennial shrub, 4 to 8 feet height; part shade to sun; This shrub may freeze back during the winter but resprouts from the roots. It requires supplemental water to survive droughts. The bark is red and the leaves bright green, adding color throughout the summer. The berries begin in mid-summer, ripening to dark purple by the summer's end. Mockingbirds, mourning doves, and inca doves have been seen guarding these shrubs and gobbling ripe berries. The berries do leave stains and all parts of the plant are poisonous.

**Horseherb (*Calyptocarpus vialis*)** groundcover, 8 to 10 inches height, partial to full shade; Horseherb prefers well-drained soil and grows well around the base of trees where grass will not grow. It is not aggressive and does not climb, although it will outcompete grass in shady areas. Horseherb can be mowed and will withstand light foot traffic. As part of a wildscape, it provides shelter for insects, lizards, and toads. The small, flat yellow flowers remain in bloom from spring to fall. It will freeze in the winter and come back from the roots in the spring. Horseherb is a boon for the lazy gardener who wants a plant that will thrive in shade with little care. It is also called Hierba del Caballo and Straggler Daisy.

**Chile Pequin (*Capsicum frutescens*)** almost evergreen shrub 2 to 5 feet in height with woody base and spreading top; Also called bush pepper or chilipitin, this is a true native Texas pepper. White flowers bloom throughout the year, eventually turning into bright red spicy peppers. The vibrant green leaves and colorful red peppers are a stunning combination in the landscape. Birds and people value the peppers as a food source. The chile pequin prefers moist soil in shady spots.

**American Snowbell (*Styrax americana*)** widely branched small tree (or large shrub) reaching a height of 10 feet or less; The snowbell grows along edges of swamps and creeks, preferring rich, moist soil. It can handle dappled to part shade conditions. The fragrant, bell-shaped flowers bloom in May or June. Another species, the Downy American Snowbell (*Styrax americanum* var. *pulverulentum*) has fuzzy twigs and prefers sandy, moist soils. The flowers serve as a nectar source for hummingbirds, butterflies/moths, and honeybees.

**Witch Hazel (*Hamamelis virginiana*)** deciduous shrub to 10 feet in height and 8 feet in width; Witch hazel's bright yellow blooms are seen in the fall and winter after the leaves have dropped. During the summer it sports thick foliage, with leaves turning a variety of colors in the fall prior to dropping. Witch hazel prefers moist, well-drained soils and dappled shade. The seeds ripen in late summer and are eaten by several bird species.

**Coralberry (*Symphoricarpos orbiculatus*)** hardy, nearly evergreen shrub, usually 2 to 6 feet in height; Also called snowberry, this shrub makes great hedges or thick groundcovers under trees in dappled to part shade. Coralberry spreads by rhizomes and is used for erosion control under harsh conditions. The greenish white flowers bloom during the summer months, becoming reddish-pink berries that persist through the winter. This winter food source is important to many bird and wildlife species.

**Rusty Blackhaw Viburnum (*Viburnum rufidulum*)** large evergreen shrub to tree, ranging 10 to 15 feet in height, but can reach 30 feet under excellent conditions; The shiny green leaves of this viburnum change to a beautiful maroon red color in the fall prior to dropping. The bright white flowers bloom in the early spring and attract butterflies and honeybees. The flowers become drooping clusters of black berries or "haws" that are desired by birds galore. The rusty blackhaw prefers well-drained soils. It will grow in dappled shade to full sun conditions. Two other species, the Maple-leaf Viburnum (*Viburnum acerifolium*) and the Arrowwood Viburnum (*Viburnum dentatum*) are also possibilities for Houston-area landscapes. The maple-leaf, 2 to 6 feet in height, prefers shady spots and sandy soils. The arrowwood, 3 to 15 feet; grows in many types of soil, but prefers moist sandy soils in part shade.

**Coralbean (*Erythrina herbacea*)** shrub multi-branching from base, 6 to 15 feet in height; Coralbean has fat, almost heart-shaped green leaves, armed with recurved prickly spines beneath. Braving the spines is worth it, however, due to the brilliant red flower spikes that bloom spring through fall. These tubular red flowers are desired as nectar sources by hummingbirds during the migration. Coralbean is usually evergreen in mild winters, but may freeze back and resprout from the roots in spring in colder winters. This shrub prefers part shade to full sun in any type of soil. The red seeds are beautiful but poisonous.

This page prepared by Glenn Olsen of the Native Plant Society of Texas - Houston Chapter.

[www.npsot.org/houston](http://www.npsot.org/houston)

# Native Texas Plants That Provide Food, Shelter or Nesting For *Birds*

## Medium to Large Size Trees

American Holly  
American Sycamore  
Bur Oak  
Black Cherry  
Blackgum  
Cherry Laurel  
Drummond Red Maple  
Eastern Red Cedar  
Hackberry or Sugarberry  
Live Oak  
Loblolly Pine  
Longleaf Pine

Native Pecan  
Post Oak  
Red Mulberry  
Southern Red Oak  
Shortleaf Pine  
Swamp Chestnut Oak  
Sweetgum  
White Hickory  
Water Oak  
Willow Oak  
White Oak

## **Small Trees**

Acacia Hirta  
American Hop Hornbeam (Ironwood)  
Barberry Hawthorn  
Blueberry Hawthorn  
Carolina Buckthorn  
Elderberry  
Flowering Dogwood  
Farkleberry  
Fragrant Sumac  
Green Hawthorn  
Gum Bumelia (Chittamwood)

Mexican Plum  
Possumhaw (Deciduous Yaupon Holly)  
Parsley Hawthorn  
Pignut Hickory  
Rough Leaf Dogwood  
Southern Wax Myrtle  
Shining Sumac  
Black Willow  
Wooly Bumelia  
Yaupon Holly



## **Shrubs**

American beautyberry  
Blackberry  
Pokeberry  
Inkberry Holly

Rusty Blackhaw Viburnum  
Southern Wax Myrtle (dwarf form available)  
Winterberry Holly  
Yaupon Holly (dwarf form available)

## **Vines**

Carolina snailseed  
Coral Honeysuckle  
Crossvine  
Greenbriar (Smilax)  
Muscadine Grape  
Mustang Grape

Riverbank Grape  
Yellow Passionflower  
Maypop Passionflower  
Trumpet Creeper  
Virginia Creeper

## Grasses

Knotroot Bristlegrass (Setaria species)  
Switch Grass (Panicum species)

Florida Paspalum (Paspalum species)  
Eastern Gama Grass

## Wildflowers

Cardinal Flower  
Coneflowers  
Coreopsis (Tickseed)

Salvia Azurea  
Sunflowers  
Thistles (Centaura)

**NATIVE GROUNDCOVERS**

Latin Name	Common Name	Form	Habit	Longevity	Site Cond.	Moisture
<i>Grasses, Sedges, Rushes</i>						
Bouteloua curtipendula	sideoats grama grass	grass	low	perennial	sun	dry
Bouteloua gracilis	blue grama grass	grass	low	perennial	sun	dry
Buchloe dactyloides	buffalograss	grass	low, spreading	perennial	sun	dry
Chasmanthium latifolium	inland sea oats	grass	to 3 feet	perennial	shade	moist
Chasmanthium sessiliflor	narrowleaf woodoats	grass	to 3 feet	perennial	shade	moist
Echinochloa walteri	Walter's barnyardgrass	grass	low	annual	sun	wet
Elymus virginica	Virginia wildrye	grass	to 3 feet	perennial	shade	dry
Elymus canadensis	Canada wildrye	grass	to 3 feet	perennial	shade	dry
Eragrostis spp.	lovegrass	grass	to 3 feet	perennial	sun	dry
Carex cherokeensis	cherokee sedge	sedge	low	perennial	shade	moist
Carex flaccosperma	thin-fruit sedge	sedge	low	perennial	shade	moist
Carex leavenworthii	narrowleaf sedge	sedge	low	perennial	shade	moist
Equisetum hymale	horsetail rush	rush	to 3', spreading	perennial	sun	wet/moist
Leptochloa spp.	sprangletop	grass	to 6 feet	perennial	sun	moist
Muhlenbergia capillaris	muhly grass	grass	to 3 feet	perennial	sun	dry
Muhlenbergia lindheimeri	Lindheimer's muhly	grass	to 3 feet	perennial	sun	dry
Panicum hemitomon	maidencane	grass	wetlands	perennial	sun	wet
Panicum virgatum	switchgrass	grass	to 6 feet	perennial	sun	moist
Paspalum plicatum	brownseed pasp.	grass	to 4 feet	perennial	sun	dry
White topped sedge	Rhynchospora colorata	sedge	To 18 inches	perennial	sun	wet
Setaria geniculata	knotroot bristlegrass	grass	to 2 feet	perennial	sun	dry
Setaria macrostachya	plains bristlegrass	grass	to 2 feet	perennial	sun	dry
Tridens strictus	longspike tridens	grass	to 4 feet	perennial	sun	dry
Tripsacum dactyloides	eastern gama grass	grass	tall, clumping	perennial	shade/sun	moist
<i>Forbs</i>						
Amsonia tabernaemontana	blue star flower	forb	Spring blooms	perennial	shade/sun	moist
Calyptocarpus vialis	prostrate lawnflower	forb	low, spreading	perennial	sun	dry
Gaillardia pulchella	indian blanket	forb	2 to 3 feet	annual	sun	dry
Lysimachia radicans	trailing yellow loosestrife	forb	to 2 feet	perennial	sun	moist
Mitchella repens	partridgeberry	forb	low, berries	perennial	shade	dry
Nothoscordum bivalve	crow's poison	bulb	to 1 foot, Spring	perennial	shade/sun	dry
Penstemon tenuis	Gulf Coast penstemon	forb	Spring blooms	perennial	sun/shade	moist
Phyla incisa	frogfruit	forb	low, spreading	perennial	sun	moist
Physostegia virginiana	obedient plant	forb	spreading	perennial	sun	moist
Rivina humilis	pigeonberry	forb	to 6 inches	perennial	shade	dry
Ruellia humilis	wild petunia	forb	low	perennial	shade/sun	dry
Ruellia malacosperma	softseed ruellia	forb	low	perennial	shade/sun	moist
Salvia coccinea	scarlet sage	forb	2 to 6 feet	perennial	shade/sun	dry
Salvia lyrata	lyre-leaf sage	forb	to 18 inches	perennial	shade/sun	dry
Siphonoglossa pilosella	hairy tubetongue	forb	low	perennial	shade/sun	dry
Spilanthes americana	creeping spot flower	forb	low, spreading	perennial	sun	moist
Symphoricarpos orbiculatus	coralberry	forb	2 to 3 feet	perennial	shade	moist
Verbena bipinnatifida	prairie verbena	forb	low, spreading	annual	sun	dry
Verbena canadensis	rose vervain	forb	low, spreading	perennial	sun	dry
Verbena tenuisecta	moss vervain	forb	low	perennial	sun	dry
Viola walteri	Walter's violet	forb	low	perennial	shade	dry
White avens	geum canadense	forb	low	perennial	sun	moist
<i>Vines</i>						
Mimosa strigillosa	powderpuff	vine	low, spreading	perennial	sun	dry
Parthenocissus quiquefolia	virginia creeper	vine	deciduous	perennial	shade/sun	dry
Rubus trivialis	dewberry	vine	spreading, thorns	perennial	sun	dry
<i>Ferns</i>						
Polystichum acrostichoid	Christmas fern	fern	low	perennial	shade	dry
Thelypteris kunthii	southern shield fern	fern	to 2 feet	perennial	shade	moist
Woodwardia areolata	chain fern	fern	to 1 foot	perennial	shade	moist
Woodwardia virginica	Virginia chain fern	fern	to 1 foot	perennial	shade	moist



# Benefits of *Naturescaping* with Native Plants



There are many benefits to naturescaping, whether practiced in place of or in addition to traditional landscaping. The benefits include, but are not limited to, the following:

- **Ease of Use** - Native plants evolved to grow in local conditions and to predictable sizes. They do not require watering (except during establishment), chemical pesticides and fertilizers, or frequent cutting.
- **Public Health** (lowers cancer rates)- Traditional landscaping uses large amounts of synthetic pesticides and fertilizers, some of which are suspected carcinogens. During rains, these chemicals often run off into public water supplies.
- **Air Pollution**- Lawnmowers, weed eaters and blowers use large quantities of fossil fuels, creating greenhouse gas and other pollutants. Lawnmowing may cause up to 5% of total air pollution, and an Exxon Valdez of oil is spilled by lawnmowers each year in the U.S. Traditional landscaping also contributes to noise pollution.
- **Saves you Money** -The cost of maintaining a naturescape is dramatically less than that of a traditional landscape because a naturescape essentially takes care of itself. Naturescapes also save you time - and how valuable is your time?
- **Water Use**- In the West, 60% of consumed water goes to lawns; in the East, 30%. This water diversion harms the environment, kills fish, and returns polluted water to our streams and rivers. It also costs you - on irrigation system installation and maintenance, and on your water bill.
- **Song Birds** -Our song bird populations having dropped steadily - 5-10% per year, depending on the species - for the last several decades, and there is no end in sight. The loss is primarily due to habitat loss. Adopting naturescaping is critical if song birds are to find food and shelter.
- **Enhanced Livability** -An ecologically functional landscape offers so much more than a sterile, static landscape. It stimulates our children with color, sound and wonder. It is cleaner, quieter and healthier, and may increase property values.

**Traditional landscaping** attempts to create a landscape that "looks" the same regardless of location. This is, in part, pushed by nurseries that sell the same plant across wide markets, maximizing revenue through efficiencies of scale. (Nurseries aggressively market this limited number of plants through garden magazines, local newspapers, and radio and television programs, etc.) It is also driven by landscape designers who tend to use the same plants regardless of where the site is (less burdensome than learning new plants). Lastly, it is driven by homeowners and property managers who grew up learning one set of plants and understandably use those plants as a frame of reference as they move about the country.

These and other forces have created an atmosphere that emphasizes using the same plants regardless of location and changing a site to accommodate these plants. Site changing often entails installing irrigation, bringing in new soil or soil amendments, regularly applying chemical products (pesticides, fertilizer, etc.), and frequently cutting, pruning and weeding. This is traditional landscaping. Resulting monocultures may cause extinction of many species.



## Natives Instead of Common Exotics (NICE)

# *Bird and Butterfly Habitat Plants- Shrubs & Trees*



### **Small Shrubs:**

#### *Use:*

Evergreen Native Shrubs: Dwarf Yaupon Holly, Yaupon Holly, Dwarf Wax Myrtle, Wax Myrtle, or  
Deciduous Native Shrubs: Beautyberry, Fragrant Sumac, Buttonbush, Turk's Cap, Texas Lantana

#### *Instead of Exotics:*

Wax Leaf Ligustrum, Indian Hawthorn, Boxwood, Privet, Variegated Privet, Chinese Abelia, Oleander, Eleagnus, Nandina, Vitex, Buddleia, Lantana Camara

### **Large Shrubs:**

#### *Use:*

Evergreen Native Shrubs: Yaupon Holly, Carolina Cherry Laurel, Wax Myrtle or Deciduous Native Shrubs:  
Beautyberry, Elderberry, Texas Acacia, Strawberry Bush, Carolina Buckthorn, Rusty Blackhaw Viburnum, Arrow  
wood Viburnum, Flame Leaf Sumac, Palmetto, Black Willow

#### *Instead of Exotics:*

Wax Leaf Ligustrum, Red Tip Photinia, Privet, Variegated Privet, Oleander, Eleagnus, Chinese Fringe Tree

### **Small Trees:**

#### *Use:*

Mexican Plum, Redbud, Green Hawthorn, Deciduous Holly, Cherry Laurel, Wild Crab Apple, American Holly,  
Dahoon Holly, Ink-berry Holly, Red Buckeye, Sweet Bay Magnolia, Farkleberry, Smooth Sumac, Flame-Leaf  
Sumac, Tooth-Ache Tree

#### *Instead of Exotics:*

Bradford Pear, Crape Myrtle, Wax Leaf Ligustrum, Red tip Photinia

### **Medium Sized Trees:**

#### *Use:*

Red Buckeye, American Hop Hornbeam, Hornbeam, Gum Bumelia, Flowering Dogwood, Rough-leaf Dogwood,  
Mexican Plum, Redbud, Carolina Buckthorn, Drummond Red Maple, Green Hawthorn, American Holly

#### *Instead of Exotics:*

Bradford Pear, Chinese Elm (also known as lacebark, Drake, Allee, Bosque Elm), Crape Myrtle, Red tip Photinia,  
Chinese Tallow, Goldenrain Tree, Chinese Umbrella Tree (also known as Chinaberry Tree or Melia), Mimosa,  
Nonnative Palm Trees, Zelkova

### **Tall Trees:**

#### *Use:*

Loblolly Pine, Long Leaf Pine, Sweet Gum, Sugarberry, Southern Magnolia, Water Tupelo, American Elm, Winged  
Elm, Cedar Elm, Live Oak, Water Oak, Willow Oak, Post Oak, Drummond Red Oak, Southern Red Oak, American  
Beech, White Oak, American Sycamore, Bald Cypress, Sweetgum, Swamp Chestnut Oak, Turkey Oak, Pecan,  
Nutmeg Hickory, Shagbark Hickory, Black Cherry, Green Ash, White Ash

#### *Instead of Exotics:*

Chinese Elm (also known as lacebark, Drake, Allee, Bosque Elm), Eucalyptus, Nonnative Palm trees, Goldenrain  
Tree, Nonnative Sycamore Trees, Sawtooth (Chinese) Oak

Many exotic plants are also invasive plants. Plants from other areas may become invasive when introduced into new areas. For many reasons, it can take hundreds of years for an exotic plant to be recognized as invasive. Planting invasive plants is environmentally destructive and can best be avoided by planting plants native (adapted over thousands of years) to your location. This is a publication of the Native Plant Society of Texas- Houston Chapter [www.npsot.org](http://www.npsot.org)

# LANDSCAPERS who will use *Native Plants* in their Landscape Designs

These landscapers will use native plants in their landscape designs, if requested. Many landscapers consider plants from other eco-regions, states and countries to be native; so tell the landscaper if you would prefer to use native plants that are truly native to your area. Native plants are part of local ecosystems and they are essential to the survival of native life forms. Native plants are low maintenance and require little water, fertilizer or pesticides once established.

**Mike Anderson - Anderson Landscape & Nursery**  
2222 Pech Road - Houston 77055  
713-984-1342

**Ron Breland - Organoscapes**  
7210 Roundrock Park Ln Richmond, TX 77469  
281-491-9534 [BrelandR@pdq.net](mailto:BrelandR@pdq.net)

**Diane Cabiness - Diane Cabiness Native Plant Nursery**  
16889 Rabon Chapel Road  
Montgomery, TX 77316 936-447-1886  
[dianecabinessplants@consolidated.net](mailto:dianecabinessplants@consolidated.net)  
[www.gardenstops.com](http://www.gardenstops.com)

**Will Fleming - Will Fleming Landscaping & Nursery**  
37592 Porter Lane Hempstead, TX 77445  
866-826-0510 (toll free)

**Mark Fox - Mark Fox Landscape & Nursery**  
Nursery at 4508 13<sup>th</sup> Street, Bacliff, Tx  
Mail to: P. O. Box 326, Seabrook, Tx. 77586  
281-339-3507 cell: 713-542-4069  
[mfox7@comcast.net](mailto:mfox7@comcast.net)

**Janet Ireland Home & Habitat, LLC**  
1707 Ojeman Houston, Texas 77055-3107  
713-647-9000 [homeandhabitat@sbcglobal.net](mailto:homeandhabitat@sbcglobal.net)  
<http://homeandhabitat.net>

**Jo Ann Jarreau Landscape Architectural Services**  
3346 East T.C. Jester #B 24  
Houston, TX 77018  
(713) 682-5299 [joannjarreau@sbcglobal.net](mailto:joannjarreau@sbcglobal.net)  
<http://www.jaj-las.com/index.html>

**Kathryn Morton KLM Landscape**  
11103 Atwell Dr. Houston, TX 77096  
713-723-2664 [katmorton@sbcglobal.net](mailto:katmorton@sbcglobal.net)  
[www.KLMlandscape.com](http://www.KLMlandscape.com)

**Brenda Pennington, Urban Gardeners**  
636 E. 11 1/2 Street Houston, TX 77008  
713-863-7535 [urbangardeners@netzero.net](mailto:urbangardeners@netzero.net)

**Eric Ruckstuhl Native Enhancements**  
5800 Ranchester Suite 156 Houston 77036  
713-988-8911 [ERuckstuhl@aol.com](mailto:ERuckstuhl@aol.com)  
[www.nativeenhancements.com](http://www.nativeenhancements.com)

Check for plant availability at <http://growit.com> and at Native American Seed: [www.seedsources.com](http://www.seedsources.com)  
Many of these landscapers maintain a stock of native plants. Other sources of plants include:

**Doremus Nursery**  
2167-CR 1550 Warren, Texas 77664  
(409) 547-3536 (wholesale only)  
[edoremus@aol.com](mailto:edoremus@aol.com)

**Flo Hannah Native Grasses, Inc.**  
Flo Hannah 713 956-6303  
[fhannah@wt.net](mailto:fhannah@wt.net)

**Treeseach Farms**  
7625 Alabonson Rd Houston 77088  
713-937-9811 (wholesale only)  
[www.treeseachfarms](http://www.treeseachfarms.com)

## Suggestions for Native Plant Gardens:

- Allow sufficient space for full growth of perennial plants.
- Include as many different kinds of native plants as possible, to attract and provide food sources for a wide variety of insects and other creatures.
- Include more butterfly food source plants by "hiding" food source plants behind larger plants.
- Have patience with plant availability (don't include out-of-ecoregion plants because native plants are not immediately available).
- Include native grasses such as bushy bluestem, gulf coast muhly and brownseed paspalum. Grasses for shade include slender woodoats, inland sea oats, virginia wildrye, canada wildrye and Eastern gama grass. Many native ferns thrive in shade.
- To encourage reseeding, minimize mulching around annuals such as gaillardia and coreopsis.
- Include a water element that is safe and accessible for creatures large and small.
- A landscape with many levels (tall trees, medium trees, small trees, large shrubs, small shrubs, grasses and shorter plants) will provide habitat for many varieties of wildlife.



A publication of the  
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[www.npsot.org](http://www.npsot.org)

# Benefits of Using Native Plants

Landscaping with native plants improves the environment. Native plants are hardy because they have adapted to the local conditions. Once established, native plants do not need pesticides, fertilizers, or watering. Not only is this good for the environment, it saves time and money. A native landscape does not need to be mowed like a conventional lawn. This reduces the demand for non-renewable resources and improves the water and air quality. The periodic burning (or mowing when burning is not practical) required for maintenance of a prairie landscape mimics the natural prairie cycle and is much better for the environment.

Landscaping with native wildflowers and grasses helps return the area to a healthy ecosystem. Diverse varieties of birds, butterflies and animals, are attracted to the native plants, thus enhancing the biodiversity of the area. The beauty of native wildflowers and grasses creates a sense of place, both at home and work. The native plants increase our connection to nature, help educate our neighbors, and provide a beautiful, peaceful place to relax.

**Reduced Use of Pesticides** Since native plants have adapted to local conditions, they are more resistant to pest problems. Sometimes individuals use non-persistent pesticides, which break down into harmless components, before sowing native plant seeds to minimize competition from the weeds. Once the native plants are established, pesticides are seldom needed.

**Improved Air Quality** Native landscaping practices can help improve air quality on a local, regional and global level. Locally, smog (ground level ozone) and air toxics can be drastically reduced by the virtual elimination of the need for lawn maintenance equipment (lawn mowers, weed edgers, leaf blowers, etc.) which is fueled by gasoline, electricity or batteries. All of these fuel types are associated with the emissions of the following air pollutants: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), nitrous oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), VOCs (volatile organic compounds) and air toxics such as benzene. Gasoline lawn and garden equipment, on average, produces 5% of ozone-forming VOCs in areas with smog problems. This equipment also emits toxics and particulates.



Regionally, NO<sub>x</sub> and SO<sub>2</sub> released from lawn maintenance equipment react with water in the atmosphere to form acid rain. Globally, native landscaping practices help to combat global warming in two ways. Carbon dioxide (CO<sub>2</sub>) is a major greenhouse gas and by reducing the use of lawn maintenance equipment, the associated CO<sub>2</sub> emissions are also reduced. Native plants help to reduce the amount of CO<sub>2</sub> in the atmosphere by taking in CO<sub>2</sub> and storing the carbon in the body of the plants, roots and soil. Native plants work much better than traditional mowed grass as a carbon sink due to their extensive root systems and increased ability to retain and store water.

**Improved Water Quality** In conventional landscaping, pesticides are often wrongly applied at times when target insects are not vulnerable. Overuse and inappropriate use often kill beneficial insects and other wildlife. Less than 10% of all insects are harmful to plants. Pesticides have the potential to cause serious human health problems when not handled properly or applied according to the label directions. By eliminating or minimizing the use of pesticides and fertilizers, these pollutants will not run-off into streams, lake, and bays. This improves the quality of the water and the aquatic life in it. In healthy water systems, natural controls, such as fish, frogs, and snails will help keep insect populations under control and reduce algae buildup.

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# Native Plants for Rain Gardens

## Moisture Loving Plants, Wet Areas

Swamp Milkweed (*Asclepias incarnata*)  
Carolina Water-hyssop (*Bacopa caroliniana*)  
Swamp Marigold (*Bidens aristosa*)  
Swamp Lily (*Crinum americanum*)  
Titi, Leatherwood (*Cyrilla racemiflora*)  
White Top Sedge (*Dichromena colorata*)  
Blue Mud Plantain (*Heteranthera limosa*)

Blue Water Leaf (*Hydrolea ovata*)  
Southern Blue Flag Iris (*Iris virginica*)  
Spring Obedient Plant (*Physostegia intermedia*)  
Fall Obedient Plant (*Physostegia virginiana*)  
Yellow Meadow Beauty (*Rhexia lutea*)  
Meadow Beauty (*Rhexia mariana*)  
Virginia Meadow Beauty (*Rhexia virginica*)

## Ferns (most ferns do well in damp areas):

Southern Maidenhair Fern (*Adiantum capillus-veneris*)  
Ebony Spleenwort (*Asplenium platyneuron*)  
Lady Fern (*Athyrium filix-femina*)  
Rattlesnake Fern (*Botrychium virginianum*)  
Southern Wood Fern (*Dryopteris ludoviciana*)

Sensitive Fern (*Onoclea sensibilis*)  
Cinnamon Fern (*Osmunda cinnamomea*)  
Royal Fern (*Osmunda regalis*)  
Netted Chain Fern (*Woodwardia areolata*)  
Virginia Chain Fern (*Woodwardia virginica*)

## Moisture Loving Plants, Drier Areas:

Woodoats (*Chasmanthus latifolium*)  
Slender Woodoats (*Chasmanthus laxum*)  
Blue Mist Flower (*Eupatorium coelestinum*)  
Virginia Wildrye (*Elymus virginicus*)  
Swamp Sunflower (*Helianthus angustifolius*)  
Maximillian Sunflower (*Helianthus maximiliani*)  
Scarlet Rose Mallow (*Hibiscus laevis*)  
Marshmallow Hibiscus (*Hibiscus moscheutos*)  
Carolina Spiderlily (*Hymenocallis caroliniana*)  
Salt Marsh Mallow (*Kosteletzkya virginica*)  
Cardinal Flower (*Lobelia cardinalis*)  
Gulf Muhly Grass (*Muhlenbergia capillaris*)  
Gulf Coast Penstemon (*Penstemon tenuis*)

Swamp Rose (*Rosa palustris*)  
Giant Coneflower (*Rudbeckia maxima*)  
Hairy Wild Petunia (*Ruellia humilis*)  
Dwarf Palmetto (*Sabal minor*)  
Seaside Goldenrod (*Solidago sempervirens*)  
Blue-eyed Grass (*Sisyrinchium angustifolium*)  
Prairie Blue Eyed Grass (*Sisyrinchium campestre*)  
Prairie Spiderwort (*Tradescantia occidentalis*)  
Ohio Spiderwort (*Tradescantia ohioensis*)  
Eastern Gamagrass (*Tripsacum dactyloides*)  
Cherokee Sedge (*Carex cherokeensis*)

## Shrubs , Understory Trees and Vines that do well near Rain Gardens

Southern swamp maple (*Acer rubrum*)  
American Beauty-berry (*Callicarpa americana*)  
Buttonbush (*Cephalanthus occidentalis*)  
American Fringetree (*Chionanthus virginicus*)  
Parsley Hawthorn (*Crataegus marshallii*)  
Carolina Jessamine (*Gelsimium sempervirens*)  
Deciduous Holly (*Ilex decidua*)  
Sweetbay Magnolia (*Magnolia virginiana*)  
Southern Wax Myrtle (*Myrica cerifera*)

Eastern Hop-hornbeam (*Ostrya virginiana*)  
Red Bay (*Persea borbonia*)  
Carolina Rose (*Rosa carolina*)  
Prairie Rose (*Rosa setigera*)  
Sassafras (*Sassafras albidum*)  
Coral-berry (*Symphoricarpos orbiculatus*)  
Farkleberry (*Vaccinium arboretum*)  
Arrowood Viburnum (*Viburnum dentatum*)



Virginia Meadow-beauty (*Rhexia virginica*)

**What is a Rain Garden?** A rain garden is a shallow depression designed to capture stormwater runoff from your roof and other impervious areas around your home, allowing runoff to soak into the ground and protect water quality. Rain gardens can increase groundwater recharge and reduce erosion and flooding, while providing other benefits to the environment. Site the rain garden in a place with good drainage (to minimize mosquitos, water should not stand more than three days). Full or intermediate sunlight is best. A relatively flat section of your yard that has well-drained soil may be a good place for construction. With soil dug from the depression, build a berm, or small earthen dam, on the downhill side of the rain garden to keep water in the garden. Stabilize the berm with mulch or ground cover to prevent erosion, and provide a place for water to overflow from the garden in flood events. **Benefits of Rain Gardens:** When planted with native plants, rain gardens provide habitat for wildlife and increase the number and diversity of fun-to-watch birds and butterflies. Be sure to inspect your rain garden periodically during and/or immediately after rainfall events to confirm the rain garden retains water as designed. Enjoy your new rain garden!

Suggested Native Texas Plants for  
*Habitat Gardens*

**Wildflowers**

Cardinal Flower- likes moisture  
Coneflowers  
Coreopsis (Tickseed & Lanceleaf)  
Spiderwort  
Gaillardia

Salvia Azurea, S. Coccinea  
Sunflowers  
Ratibida (Mexican Hat)  
Thistles (Centaurea)  
Turk's Cap

**Medium to Large Size Trees**

American Holly  
American Sycamore  
Bur Oak  
Cherry Laurel  
Drummond Red Maple  
Eastern Red Cedar  
Hackberry or Sugarberry  
Live Oak  
Loblolly Pine

Native Pecan (small nuts)  
Post Oak  
Southern Red Oak  
Swamp Chestnut Oak  
Sweetgum  
Water Oak  
Willow Oak  
White Oak  
Magnolia



**Small Trees**

American Hop Hornbeam (Ironwood)  
Carolina Buckthorn  
Elderberry  
Flowering Dogwood  
Farkleberry  
Fragrant Sumac  
Green Hawthorn  
Gum Bumelia (Chittamwood)  
Mexican Plum

Mesquite  
Possumhaw (Deciduous Yaupon Holly)  
Parsley Hawthorn  
Pignut Hickory  
Rough Leaf Dogwood  
Southern Wax Myrtle  
Shining Sumac  
Black Willow  
Yaupon Holly

**Shrubs**

American beautyberry  
Blackberry  
Rusty Blackhaw Viburnum

Arrowwood Viburnum  
Southern Wax Myrtle (dwarf form available)  
Yaupon Holly (dwarf form available)

**Vines**

Coral Honeysuckle  
Crossvine- vigorous growth, bright flowers  
Mustang Grape  
Riverbank Grape  
Carolina Jessamine- yellow flowers

Yellow Passionflower  
Maypop Passionflower  
Trumpet Creeper- vigorous growth, orange flowers  
Virginia Creeper

**Grasses**

Gulf Coast Muhly Grass- beautiful low grass  
Buffalo Grass- turf grass, low water requirements  
Indian Grass- tall attractive grass  
Inland Sea Oats (does well in shade)

Virginia Wildrye (does well in shade)  
Brown seed Paspalum  
Eastern Gama Grass- wide and tall

These plants provide great food and habitat for birds, butterflies and other wildlife.

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# Native Pond Plants

by Andrea DeLong-Amaya, Dir. of Horticulture, Lady Bird Johnson Wildflower Center

Latin Name	Common Name	Duration	Habit	Sun	Water
<i>Asclepias incarnata</i>	Pink Milkweed, Swamp milkweed, Swamp-Milkweed	Perennial	Herb	Sun, Part-shade	Wet, Moist
<i>Bacopa monnieri</i>	Coastal Water-hyssop, Herb-of-grace, Water hyssop	Perennial	Herb	Sun, Part-shade	Wet, Moist
<i>Canna glauca</i>	Canna, Maraca amarilla	Perennial	Herb	Sun, Part-shade	Wet, Moist
<i>Cladium mariscus ssp. jamaicense</i>	Jamaica swamp sawgrass, Saw-grass	Perennial	Grass/Grass-like	Sun, Part-shade	Wet, Moist
<i>Echinodorus berteroi</i>	Upright burrhead	Annual	Herb		
<i>Echinodorus cordifolius</i>	Creeping burrhead, Lance-leaf Burhead, Radican Sword	Annual	Herb	Shade	Wet
<i>Eleocharis quadrangulata</i>	Squarestem spikerush	Perennial	Grass/Grass-like	Sun	
<i>Equisetum hyemale</i>	Canuela, Horsetail, Scouring rush, Scouringrush horsetail	Perennial	Herb	Sun, Shade, Part-shade	Wet, Moist
<i>Fuirena simplex</i>	Umbrellagrass, Western umbrella-sedge	Perennial	Grass/Grass-like		
<i>Heteranthera dubia</i>	Grassleaf mudplantain, Water Stargrass	Annual	Herb		
<i>Hibiscus laevis</i>	Halberdleaf rosemallow or hibiscus, Scarlet rose mallow	Perennial	Shrub	Sun, Part-shade	Moist
<i>Hibiscus moscheutos</i>	Crimson-eyed rose-mallow, Crimsoyed rosemallow, Marshmallow hibiscus	Perennial	Shrub	Sun, Part-shade	Wet, Moist
<i>Hydrolea ovata</i>	Blue Water Leaf, Hairy Hydrolea, Ovate false fiddleleaf	Perennial	Herb	Part-shade	Wet
<i>Hymenocallis liriosme</i>	Spider Lily, Spring Spider Lily, Spring spiderily	Perennial	Herb	Part-shade	Moist
<i>Iris virginica</i>	Great Blue Flag, Virginia iris	Perennial	Herb	Sun	Wet
<i>Juncus effusus var. solutus</i>	Lamp rush, Soft Rush	Perennial	Herb	Part-shade	Wet
<i>Justicia americana</i>	American water-willow, Water-willow	Perennial	Herb	Sun, Part-shade	Wet, Moist
<i>Kosteletzkya virginica</i>	Salt Marsh-mallow, Seashore mallow, Virginia fen-rose, Virginia saltmarsh mallow	Perennial	Subshrub	Sun	Moist
<i>Lobelia cardinalis</i>	Cardinal flower, Cardinalflower	Perennial	Herb	Sun, Shade, Part-shade	Wet, Moist
<i>Ludwigia octovalvis</i>	Mexican Primrose Willow, Mexican primrose-willow, Narrow-leaf Water Primrose, Seedbox	Perennial	Shrub	Sun, Part-shade	Moist
<i>Ludwigia peploides</i>	Creeping water-primrose, Floating primrose-willow	Perennial	Herb	Sun	
<i>Marsilea macropoda</i>	Big-foot water-clover, Water-clover, Clover-fern	Perennial	Herb, Fern	Sun, Shade, Part-shade	Wet
<i>Najas guadalupensis</i>	Common Water Nymph, Najas, Southern waternymph	Annual	Herb	Sun	Wet
<i>Nelumbo lutea</i>	American lotus, Yellow lotus, Yellow water lotus	Perennial	Herb	Sun	Wet
<i>Nuphar lutea</i>	Cow lily, Spatter dock, Yellow cow lily, Yellow pond-lily	Perennial	Herb	Part-shade	Wet
<i>Nymphaea odorata</i>	American white water-lily, American white waterlily, Fragrant water lily, Fragrant white water lily, White water lily	Perennial	Herb	Sun, Shade, Part-shade	Wet
<i>Physostegia intermedia</i>	Intermediate or slender false dragonhead, Marsh obedient-plant, Obedient-plant, Spring obedient plant	Perennial	Herb	Sun, Part-shade	Moist
<i>Pluchea odorata var. odorata</i>	Marsh Fleabane, Sweetscent	Perennial	Herb	Sun	Moist
<i>Pontederia cordata</i>	Pickerel Weed, Pickerelweed	Perennial	Herb	Sun, Part-shade	Wet, Moist
<i>Potamogeton diversifolius</i>	Threadleaf Pondweed, Waterthread pondweed	Perennial	Herb	Sun	
<i>Potamogeton nodosus</i>	Knotty Pondweed, Longleaf pondweed	Perennial	Herb	Sun, Part-shade	Wet
<i>Rhynchospora colorata</i>	Starrush whitetop, Star sedge, White-topped sedge	Perennial	Grass/Grass-like	Sun, Part-shade	Wet
<i>Rhynchospora comiculata</i>	Homed Beakrush, Shortbristle horned beaksedge	Perennial	Grass/Grass-like	Sun	
<i>Sagittaria platyphylla</i>	Delta arrowhead	Perennial	Herb	Part-shade	Wet
<i>Saururus cernuus</i>	Lizard's tail, Lizard's-tail	Perennial	Herb	Shade, Part-shade	Wet, Moist
<i>Schoenoplectus americanus</i>	Chairmaker's bulrush	Perennial	Grass/Grass-like		
<i>Schoenoplectus californicus</i>	California bulrush, California club-rush, Giant Bulrush	Perennial	Herb	Sun	
<i>Thalia dealbata</i>	Powdery alligator-flag, Powdery thalia, Water canna	Perennial	Herb	Part-shade	Wet
<i>Vallisneria americana</i>	American eelgrass, Eel-grass, Water-celery	Perennial	Herb	Sun, Part-shade	Wet



## To Feed the Birds, First Feed the Bugs

*Doug Tallamy's book "Bringing Nature Home" stresses the importance of nurturing native plants like goldenrod.*

DOUG TALLAMY and his wife, Cindy, built their house seven years ago in the middle of 10 acres of former hayfields. But they don't sit inside much. Most of their spare time is spent cutting Oriental bitterweet and Japanese honeysuckle out of cherry and oak trees. They saw down thickets of autumn olive and multiflora rose and paint the cut stems with an herbicide that goes down into the roots and kills them.

The land was so thick with multiflora rose that they couldn't walk, so Mr. Tallamy cut paths with hand loppers.

They work with handsaws, not a chain saw. And they paint on the herbicide, rather than spraying it, because they don't want to damage the treasures below: under those thorny rose bushes might be seedlings of black oak, Florida dogwood, black gum or arrowwood viburnum, which, if protected from deer, could flourish in the cleared space. A meadow cleared of autumn olive can resprout with goldenrod, joe-pye weed, milkweed, black-eyed Susans and many other natives crucial to wildlife.

It's hard work, but the Tallamys love being outside. And they share a vision, an imperative, really, that Mr. Tallamy lays out in a book, "Bringing Nature Home" (Timber Press, \$27.95), published in November. They are struggling to plant the native species that are needed for insects and animals to flourish. As exotic ornamentals leap the garden fence and out-compete the native plants, many creatures are starving to death because they did not evolve with the exotics and simply can't eat them.

"I'm not trying to recreate the ancient ecosystem," said Mr. Tallamy, who is chairman of the department of entomology and wildlife ecology at the University of Delaware, in Newark, Del., 15 miles southeast of here. "That is gone. I'm trying to create biodiversity." He pointed to a row of white pines he and his wife planted five years ago to screen out a half-mile racetrack and a 120-stall horse barn as big as a box store. "You wouldn't have found white pines here back in the old days," he said of the tree. "But a lot of things eat white pine, like sawflies."

The white pine is an Appalachian native, and its natural range stops about 30 miles west of here, he said. But its wide use since Colonial times gradually expanded its range, allowing its associated insects to hitch a ride. Last spring was too cold and wet for moth and butterfly larvae, he said, but the bluebirds nesting in a box in the meadow were desperate to feed their young. "They found the sawflies in those pines and raised the entire brood on them, flying back and forth, back and forth," Mr. Tallamy said.

Many natives provide food for insects and birds, and so when young trees sprout in an inconvenient place — too close to the back door, or in front of a window — Mr. Tallamy delays pulling them out. "I went to take this black cherry out and there were 13 tiger swallowtail larvae on it," he said, standing by a sapling by the back steps. He bent over yet another, even smaller black cherry that had sprouted between the stones of the front walkway. "Anybody else would pull this out, but see this?" he asked, pointing to a drab little remnant of a leaf that some young larva had fashioned into a winter home. "That's a little hibernaculum for the red-spotted purple, which is a butterfly that people want in their gardens."

Although gardeners might believe that when they plant a butterfly bush, native to China, they are helping butterflies, they are merely attracting the adults who sip the nectar. The plant cannot be eaten by the butterfly larvae. Even a lowly fly maggot, which lives inside the hard round galls often seen on the stems of goldenrod, has an important place in the ecosystem. "Fly maggots are really high in proteins and fats, and chickadees love them," Mr. Tallamy said. "We give chickadees seeds, but when they get one of those maggots, they can really make it through the cold winter night."

So if you cut down the goldenrod, the wild black cherry, the milkweed and other natives, you eliminate the larvae, and starve the birds. This simple revelation about the food web — and it is an intricate web, not a chain — is the driving force in "Bringing Nature Home." The book evolved out of a set of principles that Mr. Tallamy jotted down at the request of students at the University of Delaware, and of gardeners attending his public lectures.

They all wanted lists of plants: what attracted what, which was then eaten by what, and so on. So he began to map a food web for the suburban or urban backyard. The typical garden might hold weeping cherries and rhododendrons, lilacs and crape myrtles. That is beautiful, perhaps, but it's a barren wasteland to native insects and thus birds. Almost all North American birds other than seabirds — 96 percent — feed their young with insects, which contain more protein than beef, he writes.

He cites the work of Michael Rosenzweig, an evolutionary biologist based at the University of Arizona, who has analyzed data from all over the world and found a one-to-one correspondence between habitat destruction and species loss. In Delaware, for instance, state ecologists say that 40 percent of all native plant species identified in 1966 are threatened or extinct; 41 percent of native birds that depend on forest cover are rare or absent.

So the message is loud and clear: gardeners could slow the rate of extinction by planting natives in their yards. In the northeast, a patch of violets will feed fritillary caterpillars. A patch of phlox could support eight species of butterflies. The buttonbush shrub, which has little white flowers, feeds 18 species of butterflies and moths; and blueberry bushes, which support 288 species of moths and butterflies, thrive in big pots on a terrace. (Appropriate species for other regions are listed by local native plant societies.) You don't have to cut down the lilacs, but they are doing nothing for the insects and birds. "It's as if they were plastic," Mr. Tallamy said. "They're not hurting anything, except that they're taking space away from something that could be productive."

**The New York Times** In the Garden <http://www.nytimes.com/2008/03/06/garden/06garden.html>