



The Sabal

Lotus Inhabits Freshwater

by Christina Mild
RIO DELTA WILD

FLORA FACTS

Scientific Name: *Nelumbo lutea*

Common Names: American Lotus, Water
Chinquapin

Family: Nelumbonaceae (Lotus)

Yellow-blooming American Lotus, *Nelumbo lutea*, is closely related to pink-flowered *Nelumbo nucifera*, native to the Old World.

Nelumbo nucifera is considered sacred in many cultures and has been widely cultivated. In addition, there are many cultivars of this larger, more fragrant lotus.

Nelumbo means “sacred bean.”

Classified for many years within the waterlily family (Nymphaeaceae), Lotus now has a separate family: Nelumbonaceae, based on studies which show the chemistry of the lotus and waterlily to be quite different.

American Lotus has a wide distribution, it “...occurs in quiet waters in ponds, lakes and the edges of slow

moving streams and rivers from Iowa and Minnesota to Ontario and New York and south to Oklahoma, East Texas and Florida. It also occurs in the West Indies and Central America and south to Columbia.” (“Floridata” website.)

In Cameron County, American Lotus blooms during summer in resacas and ponds. It is a perennial which waxes and wanes as ponds are filled in rainy seasons and recede during drought.

My recent encounter with American Lotus was at a roadside pond north of the Border Patrol checkpoint on Rt. 77. Suzanne Conway, her son Jon and I explored a few roadside ponds on that excursion. Jon was hoping to capture frogs, and there were plenty of them, especially at the pond where we found lotus. They jumped at every step we took and were so fast that I have no idea what color they were or what they looked like.

What a lovely plant!

The flowers are about six inches wide, regally protruding above the water on a long, stiff stalk.

Henry David Thoreau and his contemporaries were likewise captivated with that beauty. Herewith his journal entry of June 25, 1852: “Tomorrow, then will be the first Sabbath, when the young men, having bathed, will walk slowly and soberly to church in their best clothes, each with a lily in his hand or bosom, with as long a stem as he could get. At least I

used to see them go by and come into church smelling a pond-lily, when I used to go myself. So that the flower is to some extent associated with bathing on Sabbath mornings and going to church, its odor contrasting and atoning for that of the sermon.”

Suzanne was hoping to dig one of these “pond-lilies” for transplanting. I suppose the culmination of her quest would have resulted in a bath. Large, spongy underground stems called rhizomes can be used to propagate the plant. These lie in the mud beneath water as much as 8 ft. deep. Rhizomes are of two types, slender and elongated or thick and banana-like.

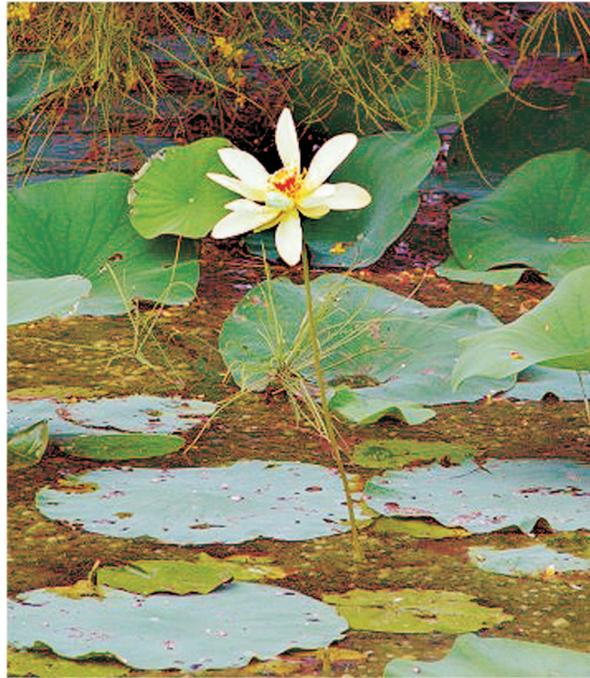
The distinctive flat-topped seedpods, resembling showerheads, had not ripened on the day of our visit. These are often used in dried flower arrangements.

Each seed is borne in a pit on the showerhead-like receptacle. Seeds are the size of small marbles and have a hard, impermeable seed coat. The seed remains viable for decades. Germination can be speeded up by scarification (making a small hole in the seed coat with a file or drill) and immersing the seed in water.

Once established, Lotus spreads rapidly via growth of the underground rhizomes. Best growth occurs between 0.6 and 1.8 meters in depth. Because rapid growth is sometimes troublesome, many methods of control are posted on various websites.

“The lotus is truly a beautiful, even majestic looking plant,” says botanist Dr. Alfred Richardson.

“However, I would never recommend (cultivating it) unless the individual wants nothing else in the pond but lotus. It is the epitome of invasive. My friend, Beverly Wheelock, planted the yellow lotus in her pond with water lilies. In one season, the one plant had overgrown the whole pond and crowded out the water lilies. It was a long time ago, but I would guess the pond was about 40’ long and 20+ feet wide... As far as I am concerned, it’s beautiful in a wild pond somewhere, but it needs to stay there.”



Yellow lotus blooms inspire rapture. Water forms large droplets on waxy, round Lotus leaves. Lotus leaves sometimes form funnels. Many parts of American Lotus are eaten by humans and wildlife. Photos courtesy of Christina Mild



there.”

Other sources recommend planting in a stout container, without holes, to keep the tubers confined.

If you don’t mind slogging about in a pond, you could harvest and eat the lotus to keep it in check.

American Lotus was an important food for Native Americans.

Starchy storage tubers, formed along the rhizomes, can be baked like sweet potatoes. Young leaves, before they unroll, can be steamed or boiled like spinach.

Immature seeds can be eaten raw. Mature seeds can be shelled, kernels roasted, and eaten like nuts or ground

In Oriental cultures, Lotus leaves are used to package foods for steaming. Lotus “threads” season Sweet & Sour Soup and Lotus root is used in a variety of dishes.

Puddle ducks sometimes eat the large, acorn-like seeds, but the plant is deemed overall low in terms of wildlife use.

It is speculated that American Lotus originally grew along floodplains of major rivers and their tributaries and was spread by Native Americans who used the seed and tubers for food.

The lotus leaf is uncut, which distinguishes it from a waterlily. Beneath

the leaf is a long, stiff stalk, connected to the leaf at the very center, umbrella-like (peltate). Leaves are sometimes floating, but are typically raised above the water. A waxy coating repels water droplets, making them coalesce into large, mercurial drops.

Yellow American Lotus is restricted to areas where salinities approach zero parts per thousand (ppt). They cannot tolerate salinities above 0.5 ppt. Moderately clear water and full sun are also required. Lotus is very susceptible to herbicides. (Charles D. Stutzenbaker,



Book Review: Requiem for a Lawnmower – Gardening in a Warmer, Drier World. 2nd Ed by Sally and Andy Wasowski

Reviewed by Bill Neiman

Reading Requiem for a Lawnmower is like sitting on the front porch chatting with good friends. It flows with the ease and understanding of a pleasant and meaningful conversation. Requiem brings to light complicated subjects with simply written down-home, up-front and hard-earned tales of the experienced native gardener. Dealing with subjects ranging from invasive plants to how to get started with your own native prairie in a suburban back yard. This book could be just the teaching tool our nation so desperately needs. Don't believe me? Check out last May's Time Magazine pushing a spread on the latest and greatest model of a green and yellow mowing monstrosity, comes complete with beverage holder, compact-disc player pluggins and fully

adjustable lumbar support, (how many miles per gallon does it get?) all for the low, low price of \$17,000. That's right seventeen thousand dollars, half of the average income of a United States citizen. And the WAR rages on. The real War is being fought here at home, with the destruction of our precious natural resources and native lands. Everyone can do his or her small part to preserve our natural heritage and this book tells you how. From rescuing native plants in an area slated for development to fighting mis-conceived weed ordinances, maintaining a healthy environment, Requiem for a Lawnmower truly asks the question, "Do we value a dandelion free lawn, over our children?" The information is all here for planting for a sustainable and eco-logical future in our own front yards. Now the choice becomes all yours!

Bill Neiman, owner of Native American Seed, Junction, Texas wrote this article in May, 2004. It first appear in the July/August Vol.22, No. 4 issue of *NSPOTNews*

WILDFLOWER AWARENESS

by Dorothy Brown Thetford

Common name: Silver-leaf Nightshade

Botanical name: (*Solanum eleagnifolium*)

Family: Solanaceae

For those wildflowers that grow easily, need no maintenance, survive our Texas heat and drought conditions, and are propagated by nature's winged pollinators, this hurry-scurry generation should be grateful.

Case in point is a seldom recognized, misidentified, unappreciated native wildflower of Texas that continues to produce a unique flower during most of our June-through-October growing season.

From the Nightshade Family, Solanaceae, this sleeper is commonly called silver-leaf nightshade, and is easily identified by its pale,

silvery-green leaves. The multitude of stellate hairs provides the silvery color. Each leaf is three to four inches long and less than an inch wide, alternate, oblong-lanceolate, and has slightly wavy edges. Very small, and very sparse, prickles may be found on the underside of the leaf.



Silver-leaf may have one or several erect silvery-green stems averaging eighteen inches tall. However, if mowed along roadsides during the mid-summer, plants may rebloom in late Fall from eight to ten-inch tall plants, providing a cluster of two or three terminal flowers.



Flower colors vary from pale lavender to violet-purple, and attract attention with large, protruding, contrasting bright yellow anthers. The five petals of the star-shaped, reflexed flower are accented with darker colored ridges down the center of each wavy edged petal.

Silver-leaf Nightshade, flower close-up, and flower with unripe fruit. Fruit are orange when mature. Photos

courtesy of Stan Sterba.

Not only is the flower attractive from the top side, but is just as beautiful from the back side. The underside ridges are whitish in color and create yet another star-shaped design.

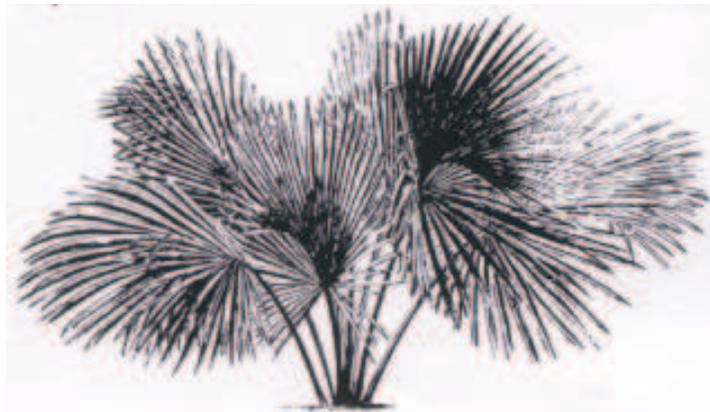
If you're not impressed with foliage or flower, wait for the fruit to mature. Silver-leaf produces a 3/8 inch diameter fruit which appears to be perfectly round, truly resembling the marbles of our childhood games. From a green color, they evolve into a yellow-green, and then mature into varying shades of gold, rust, and bronze, clinging to the plant for months. Truly attractive.

History reports that the fruits were used by Southwestern Indians in making cheese, treating sore throat and toothache, and, when mixed with cream was claimed to cure poison ivy.

More recent reports indicate that seeds are a source of solasodine, used in the commercial manufacture of steroidal hormones. However, the plant has been eradicated in pastures because it can be lethally poisonous if eaten by livestock..

This native is found throughout Texas in disturbed and neglected soils, and may be considered a weed until its uniqueness is appreciated. Add a few seeds to your flowerbed, or enjoy the large colonies of this beautiful wildflower now in full bloom along our Texas roadsides.

* * * Dorothy Brown Thetford, recipient of the Native Plant Society of Texas Benny J. Simpson Award 2003, is a native plant photographer and creator of the "Wildflowers-of-Texas" greeting card line. Mrs. Thetford is a certified Master Naturalist, past president of Upper Clear Creek Range & Wildlife Management Association, and active with Trinity Forks chapter of NPSOT. She and her husband actively protect and preserve their native prairies in Denton and Montague counties. She may be contacted at 940-382-9344 or dthetford@mailstation.com.



The Sabal is the Newsletter of the Native Plant Project and conveys information on the native habitats, and environment of the Lower Rio Grande Valley Texas. Co-editors: Gene Lester and Eleanor Mosimann.

You are invited to submit articles for *The Sabal*. They can be brief or long. Articles may be edited for length and clarity. Black and white line drawings -- and colored photos or drawings -- with or without accompanying text are encouraged. We will acknowledge all submissions. Please send them, preferable in electronic form - either Word or WordPerfect, to: Native Plant Project, P.O. Box 2742, San Juan, TX 78589 or contact Gene Lester @ 956-425-4005, or g_lester48@msn.com.

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Native Plant Project Annual Membership Application Form

Regular \$15 per year Contributing \$35 per year Lifelong \$250 one time fee per individual. Members are advised of meetings, field trips, and other activities through The Sabal. Dues are paid on a calendar year basis. Send checks to Native Plant Project, P.O. Box 2742, San Juan, Texas 78589.

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Comments/ suggestions/ speaker recommendations should be sent to: Native Plant Project, P.O. Box 2742, San Juan, TX 78589 or contact Gene Lester @ 956-425-4005 or g_lester48@msn.com

Native Plant Project Meetings – September 28, 2004; **Board meeting** at 6:30 pm; **General meeting** at 7:30pm featuring: Mr. James H. Everitt, co-author of *Trees, Shrubs & Cacti of South Texas*, and *Field Guide to the Broad-Leaved Herbaceous Plants of South Texas*, will present a program about “rare and Endangered Species of the RGV”.

Board and General meeting dates 2004– October 26, November 23.

Board only meeting dates 2004– December 28 (canceled).

Native Plant Rescue: The Valley Nature Center will rescue native plants about to be dug-up by construction companies and developers. Call 956-969-2475.

HIGHLIGHTS OF THE NPP BOARD MEETING ON JUNE 28: Possible speakers for the coming year were discussed. Native grasses can and will be added to the NPP web site. Mike Heep is maintaining the 17 species that have so far been identified and photographed. A native grass demo area in Ramsey Park was suggested. **MAY 25:** The board appointed Chris Hathcock as a Director to complete the term of Eugene Rouse. Some general issues concerning the proposed native plant seminar were discussed. R. Hoyt, Mike Heep, and Gene Lester are preparing photographs of native grass species for the NPP web site and possible future handbook.

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