

# AMERICAN LOTUS

When observing aquatic vegetation, one may notice a plant with large leaves and yellow flowers. That plant may be the American Lotus (*Nelumbo lutea* [Willdenow] Persoon).

Depending upon the references, American Lotus is either a member of the Order *Nymphaeales* or of the Order *Proteales* and of the Lotus Lily Family (*Nelumbonaceae*) or of the Water Lily Family (*Nymphaeaceae*). The generic name, *Nelumbo*, is from *nelumbus*, which is a Ceylonese name for “lotus”. *Nelumbo* also means “sacred bean”, referring to its seeds. The specific epithet, *lutea*, is from *luteum* or *luteus*, which are both Latin for “yellow”, which refers to the color of the flowers.

A previous scientific name for this plant was *Nelumbo pentapetala* (Walter) Fernald. At different times and places, other common names for this species have been Alligator Buttons, Alligator Peas, American Lotus Lily, American Nelumbo, American Water Lotus, Big Bonnet, Bonnet, Can-Dock, Duck Acorn, Elephant’s Ear, Great Yellow Water-Lily, Knock-Knocks, Lily Nut, Lotus, Lotus Lily, Macoupin, Monaca Nut, Nelumbo, Pond Nut, Rattlenut, Sacred Bean, Wampapin, Wankapin, Water Bean, Water Chinkapin, Water Chinquapin, Water Lotus, Water Nut, Yankapin, Yawk Nut, Yellow Lotus, Yellow Pond Lily, Yellow Water Lotus, Yockernut, Yonkapin, and Yonkapin Bonnet.

## DESCRIPTION OF THE AMERICAN LOTUS

Perennial

**Height:** Because the American Lotus is an aquatic plant its height varies with the depth of the water. Both the leaves and the flowers are often located about 1-6 feet above the water.

**Leaves:** American Lotus only has 1 simple, blue-green, basal leaf. This leaf is about 7-36 inches wide, rounded or shield-shaped, concave, and bowl-, funnel-, or umbrella-shaped. It has an entire margin. These leaves are not notched or indented. It is smooth on the top and is slightly hairy on the bottom.

Its strong, thick, porous, cylindrical, and flexible petiole is attached to the slightly depressed center of the leaf. If the leaf is floating, it is nearly flat. If the leaf is emergent, it is more conical. One acre of American Lotus plants may have about 75,000 leaves.

**Flowers:** The flower is yellow or light yellow, cup-like, showy, fragrant, solitary, radially symmetrical, and about 4-10 inches wide. The petals and the sepals, that both number about 20-30, are obovate, have blunt tips, and are curved upwards and around its large center. Each flower has up to 200 stamens and a large, green-yellow, flat-topped, convex or conical, spongy receptacle in its center. This receptacle is about 3-4 inches long and has many holes. Each hole contains a single pistil.

These flowers are opened at morning and are closed at night. The younger flowers open to expose the center receptacle and its pistils. These younger flowers are pollinated by insects, which have just visited the older flowers that have been opened to expose their stamens. This method assures cross-pollination of the flowers. These flowers are only opened and closed for about 2 days.

The flower and the leaf are borne upon separate stalks. The flowers are above the water.

After the petals and sepals drop, this center receptacle dries and turns brown.

Flowering season is usually June to September.

**Fruit:** The fruit consists of a 4-inch wide, woody, inverted conical, flat-topped seedpod with small mounds and several holes. Each hole has a single, embedded seed.

These mature seedpods bend over about 180 degrees, break away from the plant, and float to different locations. Eventually, these seedpods absorb water, rot away, and release their seeds at their new locations.

**Seeds:** Each seed is dark brown, dry, hard, globular or ovate, and is about ½-¾ inches in length. Its tip has a sharp, hard point. One acre of American Lotus can produce about 500-600 lbs. of seeds. Songbirds (Suborder *Passeri*) and Waterfowl (Family *Anatidae*) often eat these seeds. These seeds may remain dormant for up to 200 years.

**Rootstocks:** The rootstocks are nearly 1 inch thick and may grow up to 50 feet long. They are horizontal and creep within the mud at depths of up to 18 inches and/or below the frost line. This plant often reproduces asexually through its root system.

These rootstocks have swollen, porous, rhizome tubers that may be about 10 inches long and weigh about ½ lbs. Beavers (*Castor canadensis* Kuhl) and Muskrats (*Ondatra zibethicus* L.) eat these tubers.

**Habitat:** American Lotus inhabits ponds, lakes, and slow, quiet, sluggish rivers. They can inhabit the water from the shoreline to a depth of about 8 feet. They prefer areas with sufficient sunlight.

They may inhabit a variety of sediments. They can even tolerate some turbidity.

If the habitat is ideal, this plant may form dense colonies of several acres. These large colonies provide habitats for various aquatic fauna.

**Range:** American Lotus range across most of the eastern United States, usually from the Appalachian Mountains to the Great Plains. Their northern limits are the Great Lakes, southern Ontario, southern New York, and southern New England. Although their range is extensive, they are not a very common species. They are more common in the South than in the North.

They may have originated in the southeastern U.S., Mexico, Central America, and the Caribbean. They were believed to have been transported North by the Native Americans.

## Uses:

American Lotus is edible to humans. Both the Native Americans and the early European settlers consumed parts of this plant. The Native Americans cultivated this plant long before the arrival of the Europeans.

Both the young, unrolling, and unopened leaves and the petioles can be gathered in the late spring to early summer. They are said to have a bitter taste, but can be boiled in several changes of water and eaten like a potherb.

The rootstocks' starchy tubers are gathered in the fall to early spring. When eaten raw, they have an acrid and unpleasant taste. They should be peeled and baked or be boiled repeatedly. They are said to taste like Sweet Potatoes (*Ipomoea batatas* [L.] Lamarck). These tubers can also be dried out and stored for the winter.

The seeds are like Oak (*Quercus* sp.) acorns. They are gathered in the summer or in the fall. They can be eaten when mature or immature. The immature seeds have no shells and

can be eaten raw, boiled, or roasted. They are said to taste like Chestnuts (*Castanea* sp.). The mature seeds have hard, thick shells that need to be removed before they are eaten. They can be dried, boiled, roasted, or ground into flour. These seeds are highly nutritious and contain about 19% protein.

The dried seedpods have a non-edible use. They have decorative uses in dried flower arrangements.

This plant should not be over-harvested. Too much harvesting can extirpate this plant from an area.

### **Poetry:**

The Lotus has been a subject of many poems. However, most of those poems were written about our non-native species.

During the 1840's, American poet Henry Wadsworth Longfellow wrote the poem *Evangeline: A Tale of Acadie*, which tells of the plight of the expelled French Acadians from Canada by the British in 1755. One of the lines in that poem mentions the American Lotus:

*Resplender in beauty, the lotus  
Lifted her golden crown above the heads of the boatmen.*

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