

3D Botanical Models by Ken Gilliland

Nature's Wonders

Water Lily Garden

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Nature's Wonders

Water Lily Garden

Introduction

Nymphaeaceae is a family of flowering plants, commonly called **water lilies**. They live as rhizomatous aquatic herbs in temperate and tropical climates around the world.

The family contains six genera (*Barclaya, Euryale, Nuphar, Nymphaea, Ondinea, and Victoria*) with about 70 known species. Water lilies are rooted in soil under bodies of water. The leaves (pads) and flowers rise to the surface of the water, where the lily pads float. These pads are round, with a radial notch in Nymphaea and Nuphar, while they are fully circular in Victoria and Euryale. Genera with more floral parts, such as Nuphar, Nymphaea & Victoria, attract numerous flying pollinators from birds and bats to beetles, bees, buterflies and moths, while genera with fewer parts are pollinated by flies or bees or they are self- or wind-pollinated.

Water lilies have been hybridized for temperate gardens since the 19th century by horticulturalists, and the hybrids are divided into three groups: hardy, night-blooming tropical, and day-blooming tropical water lilies. Water lilies range notably in size – from miniature flowers with small leaves (15-30 cm, 6-12" in diameter) to giant plants (*Victoria sp.*) that are up to 3m (9.8') in diameter. They come in a variety of shapes – star shaped, cup shaped, pointed or fluffy, though that's certainly not all. The leaves can be smooth or jagged, rounded or pointed. The colors are just as varied, ranging from yellow, pink, red, white, purple, blue and orange. Several types of lilies are incredibly fragrant, as well.

Besides being pleasing to the eye, water lilies do a great deal to maintain the well-being of the bodies of water that they inhabit. Not only do they provide shade to reduce the water temperature during the hot summer months. But by blocking out a lot of the sunlight they help to keep the algae growth down. Additionally they also absorb nutrients in the water that would normally feed these undesirable green plants, thus keeping the water clear and clean-looking. Their shade also gives shelter to any fish that may be in the pond, providing a respite from both the sun and any predators that may be lurking nearby.

Although water lilies and lotuses are sometimes thought to be the same plant, they are different. Actually it is easy to tell them apart. The leaves and flowers of water lilies float on the surface of the water, while the leaves and flowers of the lotus rise above the water.

How to Care for Your Plants

Horticultural techniques in Poser

- 1. Get the planting area ready by installing the product in Poser.
- 2. Load Poser and go to the Props section. Locate the "Nature's Wonders/Flora/Water Lily Garden" folder.
- 3. Select the plant(s) you want to plant by clicking the icon.
- 4. The plants often look their best when given lots of sunlight (100% or more on the main light is recommended.)

Horticultural techniques in DAZ Studio

- 1. Get the planting area ready by installing the product in DAZ Studio.
- 2. Load Studio and go to the "Environments" folder in the DAZ Studio section. Locate the "Nature's Wonders/Flora/Water Lily Garden" folder.
- 3. Select the plant(s) you want to plant by clicking the icon.
- 4. The plants often look their best when given lots of sunlight (100% on the main light is recommended.)

Creating some specific species

Nymphaea mexicana- For the Mexican water lily, use Water Lilypad1 and Water Lily Flower4 (Yellow). On the flower prop turn the pointed petal morph to "1". It is is native to the Southern United States and Mexico and is popular in the gardening trade. The flowers close at night on this species.

Nymphaea odorata- For the American white water lily, use Water Lilypad2 and Water Lily Flower2 (White). On the flower prop turn the pointed petal morph to "1". Flowers are 5-15 cm (2-6") in size. It is native to the northeastern United States (found in Canada, south to northwest Maine, and west to northern Michigan and Minnesota and a few places in Washington and Idaho). It usually flowers only from early morning until noon.

Nymphaea lotus- For the Egyptian Tiger Lotus, use Water Lilypad2 and Water Lily Flower2 (White). On the lilypad prop turn the serrated edges morph to "1". This lily is found along the Nile river in Egypt.

Victoria amazonica- Use the Giant Water Lilypad1 and Giant Water Lily Flower1a/Giant Water Lily Flower1b. *Victoria amazonica* has a leaf that is up to 3 m (9.8 ft) in diameter, on a stalk up to 8 m (26 ft) in length. The genus name was given in honor of Queen Victoria of the United Kingdom. It is native to the shallow waters of the Amazon River basin, such as oxbow lakes and bayous. The flowers are white the first night they are open and become pink the second night. They are up to 40 cm in diameter, and are pollinated by scarab beetles.

Victoria cruziana- Use the Giant Water Lilypad2 and Giant Water Lily Flower2a/Giant Water Lily Flower2b. *Victoria cruziana* is native to the Parana-Paraguay basin, situated in the central-eastern part of South America. They are up to 35 cm in diameter, only slightly smaller than *Victoria amazonica*. Also the underside of its leaves are green to purple rather than the deep red of *Victoria amazonica*. It opens its flowers at dusk and they are white with red centers on the first night and become pink the second night.



Special Thanks to:

.. to my beta tester, FlintHawk

Sources:

- Wikipedia http://wikipedia.org
- Wildflowers.org <u>http://www.wildflower.org</u>

