

U.S. National Early Detection and Rapid Response System for Invasive Plants

EDRR Fact Sheet

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Common Name: Crested Floating Heart

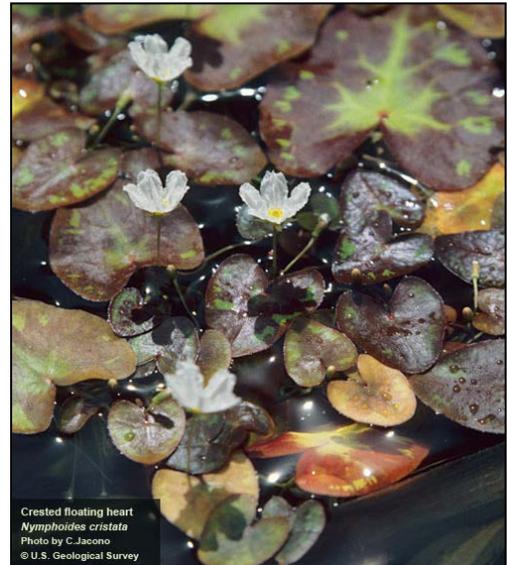
Scientific Name: *Nymphoides cristata* (Roxb.) O. Ktze.

Family: Menyanthaceae

Description: An herbaceous aquatic plant with floating stems from a buried rootstock. **Slender tuberous roots** dangle from the stem-leaf node. **A Single Heart-shaped Leaf** with smooth margins, cordate base, and short petiole at the tip of each stem. **Flowers** white, with membranous margins, 0.3-0.9" wide, petal lobes crested with erect fold of tissue along upper midvein, blooms from summer to fall. **Fruit** an oblong capsule, with smooth, rounded seeds.

Image: Crested Floating Heart – Colette Jacono, U.S. Geological Survey, Gainesville, FL. URL:

<http://plants.ifas.ufl.edu/images/nymcri/nymcri2.jpg>



Similar Plants: The native [Banana lily \(*Nymphoides aquatica*\)](#).

Habitat: Crested floating heart grows in ditches, canals, ponds, and lakes.

Native Range: Asia.

Pathways of Introduction and Spread: Crested floating heart was introduced to the U.S. as a water garden plant. Once established in a waterway, fragments of the plant are spread by wind, flowing water, boats, and trailers, Introduced as an aquatic ornamental plant; spread.

U.S. and Canada Distribution:



Crested Floating Heart in Florida - Ecological and Economic Impacts: Free living populations of Crested floating heart were first observed in cypress swamps and water management canals in southeast Florida in the late 1990s. Within a few years, large canals and suburban lakes in the central and eastern parts of the state had become infested. There is serious concern about this plant because herbicides that effectively control other floating and emergent invasive plants have had little effect on it. *It is still being sold in the water garden trade.*

Crested Floating Heart in Lake Marion, South Carolina.

Crested floating heart was detected in a 20 acre cove near Eutaw Creek at the southeastern end of Lake Marion (Orangeburg County), South Carolina, in August, 2006. This was the first that free living populations of the plant have been confirmed outside of Florida. The plant was most likely introduced into the Santee Cooper lake system from a backyard water garden, or by boats from Florida, or elsewhere. Initial applications of herbicides that control other aquatic weeds were largely ineffective – *as already seen in Florida*. Low water levels experienced during of 2007-2008, as well as freezing winter temperatures also had little effect on the plant. By mid-

2007, nearly half of the cove at Eutaw Creek was covered by the plant. By late 2008, the plant had spread to other areas of the lake, both downstream and upstream from the original infestation at Eutaw Creek. In October, 2009, Santee Cooper aerielly sprayed 350 acres of the lake that had become infested by the plant. In February, 2010, it was estimated that about 2,000 surface acres of the lake, as well as the Santee River below the Lake Marion dam had become infested. In 2010, Santee Cooper is planning to conduct early detection and delimiting surveys of Lake Marion, the Santee River, and Lake Moultrie, and will be conducting additional control efforts, based on the effectiveness of efforts in the fall of 2009.

Control Strategies: Currently, Santee Cooper is using a tank mix of glyphosate ([Touchdown Pro](#)) plus imazamox ([Clearcast](#)), combined with a pesticide sticker/extender*, in an effort to control infestations of Crested floating heart in Lake Marion, South Carolina (Personal Communication, Larry McCord, Santee Cooper, Moncks Corner, South Carolina, May 18, 2010). Early results from the fall, 2009, treatment effort, indicate a small reduction in total surface acres infested. Therefore, it is critical that preventative measures be taken by boaters and water garden enthusiasts to minimize the spread of the plant. New infestations should be detected early and eradicated by all means possible to prevent further establishment and spread.

*Pesticide extenders help the herbicide stick to the target plants

Regulatory Status: Crested floating heart is not currently being regulated at the state or federal level in the United States.

Online Resources:

Crested Floating Heart Fact Sheet – San Marcos Growers, Santa Barbara, CA.

URL: http://www.smgrowers.com/products/plants/plantdisplay.asp?plant_id=2778

Crested Floating Heart in Lake Marion, South Carolina. Southeast Exotic Pest Plant Council – EDDMapS. URL: <http://www.eddmaps.org/southeast/distribution/point.cfm?id=633409>

Crested Floating Heart Profile – U-FL Center for Aquatic and Invasive Plants.

URL: <http://plants.ifas.ufl.edu/node/291>

Crested Floating Heart Recognition Card – U-FL Center for Aquatic and Invasive Plants.

URL: http://plants.ifas.ufl.edu/misc/reco_cards/nymcri.pdf

Crested Floating Heart Supplier – The Water Garden, Chattanooga, TN.

URL: <http://www.watergarden.org/Pond-Supplies/Lily-like-Aquatics/White-Snowflake>

Crested Floating Heart Supplier – Pond Megastore, Canton, OH.

URL: <http://www.pondmegastore.com/shop/product.php?productid=16750>

Florida's Floating Heart Fact Sheet – Comparison of the Four Floating Heart Species that Occur in Florida. Colette Jacono, U.S. Geological Survey, Gainesville, Florida.

URL: <http://plants.ifas.ufl.edu/misc/pdfs/nymphoides.pdf>

New Nymphoides in Lake Marion. S.C. Aquatic Plant Management Society Newsletter.

28(1):3. URL: <http://www.scapms.org/images/may2007news.pdf>

Santee Cooper plans aerial spraying to fight invasive lilies. The DigitalCharleston. 10-1-2009.

URL: <http://charleston.thedigitel.com/green/santee-cooper-plans-aerial-spraying-fight-invasive-6353-1001>

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