

YELLOW FLOATING HEART

Nymphoides peltata

Photo courtesy of Rob Andress, Alabama DCNR, Bugwood.org.



This aggressively-growing aquatic perennial was introduced as a garden ornamental from eastern Asia and has since spread throughout the United States and Canada. It forms dense mats of vegetation in the water which excludes native species and alters the ecology of waterways.

SPECIES DESCRIPTION

Yellow floating heart is a bottom-rooted aquatic plant with a long branched stem that reaches three feet or more. It has shiny, green, heart-shaped or nearly circular leaves 5-15 cm (2-6 inches) long set on stalks that float at the water's surface. Leaves are frequently seen with reddish-purple blotches and are slightly wavy or rippled. They are alternately arranged along the main stem, and oppositely arranged on the flower stems. Flowers, which occur from June to October, are produced on stalks just above the water's surface. They can be either solitary or in clusters of up to five, with five yellow petals that have distinctive fringed edges, as well as five sepals, and five stamens. One-inch long fruit capsules contain numerous flat, oval seeds with "hairy" edges. When ripe, they split open, releasing the seeds to float on the surface of the water.

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■ *Nymphoides peltata* can be found in Bradford, Berks, Bucks, Chester, and Montgomery Counties.

Yellow floating heart may be confused with the native spatterdock (*Nuphar variegata*) or watershield (*Brasenia schreberi*). Spatterdock has larger leaves that grow 30 cm (12 in.) or more and yellow flowers in the shape of a ball with six or more petals. Watershield has distinctive oval-shaped leaves, an inconspicuous purple flower, and can be easily recognized by a gelatinous slime that covers the stem and underside of the leaves.

NATIVE & INTRODUCED RANGES

Native to Eurasia and the Mediterranean area, yellow floating heart was introduced as an ornamental plant. In Pennsylvania, the earliest recorded occurrence was from Berks County in 1905. It has since become naturalized at additional sites, primarily in the southeastern corner of the state.

Map courtesy of USDA Plants database.

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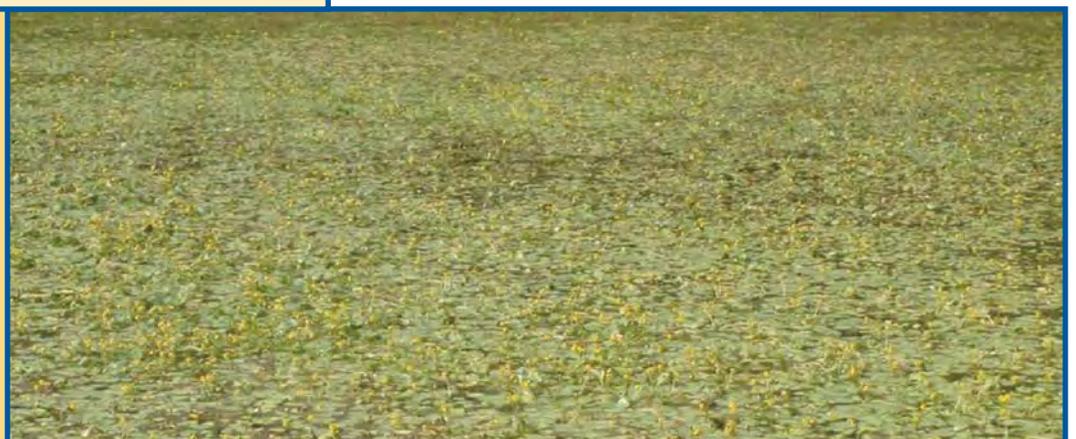


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BIOLOGY & SPREAD

Because of its popularity in the aquarium trade, yellow floating heart can be easily purchased on the internet and by mail-order. Spread can occur when flooding allows it to escape outdoor water gardens, or when it is intentionally discarded into waterways. Since it spreads both by seed and fragmentation, pieces of rhizomes, stem, and plant fragments can be moved to other areas and form into new plants. It can also spread when the stiff seed hairs stick to waterfowl and other wildlife, allowing it to hitchhike to new sites.

HABITAT

Most commonly found in slow moving waters about 0.5 to 4 m (1.5-13 ft.) deep, such as rivers, lakes, reservoirs, ponds, and swamps, and can even grow on damp mud.

IMPACTS

Threat to Biodiversity

Like other floating plants, yellow floating heart grows in dense patches on top of the water. These mats negatively impact wildlife habitat by excluding ecologically important native plants. Water quality also declines as stagnant areas with low oxygen levels are created underneath the floating mats.

Economic Costs

The dense mats of yellow floating heart make recreational opportunities such as angling, recreational boating, swimming, and paddling difficult.

PREVENTION & CONTROL

Little information is available on the control of yellow floating heart, and chemical and physical methods are not yet established. Removal by cutting or using some herbicides may work; however, if roots are not killed, regrowth may occur within four to five weeks. This makes control difficult and often unrealistic; therefore, the key to preventing spread is knowledge. Learn to identify yellow floating heart. Always remove any visible mud, plants, and debris from boats, trailers, and equipment before leaving a water body.

Eliminate water from all equipment before transporting. Clean gear and equipment with either hot water (140°F/60°C), or salt water; OR let boats and equipment dry for at least five days before entering a new water body.



Photo courtesy of Rob Andress, Alabama DCNR, Bugwood.org.

References:

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