ENVIRONMENTAL Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

BB-67 2023

Bladderwort with Spoked Float: Is it Native or Invasive?

A new species of bladderwort is finding its way into New Hampshire's waterbodies, and it looks a lot like one of our native bladderworts. The two plants are both free floating (not rooted), and both form spoked or wagon-wheel like floats from which yellow flowers arise. One is petite and native, the other is larger and non-native. Can you tell the difference? Please read on to learn how to differentiate between the native and the non-native forms.

Native

Utricularia radiata – Floating Bladderwort

Figure 1. Flowering floating bladderwort (photo credit: Arthur Haines - Source)

Floating bladderwort is a small plant that is typically found suspended in ponds, lakes, and ditches. The upper leaves that form a wagon-wheel shape are inflated and keep the flowering stem above the water's surface. The plant's second type of leaves are submerged underneath the water and contains bladders (actually, little stomach-like structures) that catch insects and plankton which they digest for nutrients. Naturally, it ranges down the east coast of North America, from Nova Scotia to Southern Florida. The Range extends west to Texas and north to Indiana, and it is a common plant in New Hampshire.

Figure 2. Floating bladderwort's submerged leaves with bladders (photo credit: Donald Cameron - Source)

The spoked or wagon-wheel like floats grow in whorls of 4-7 leaves and up to about 1-4 cm across. The lower, submerged leaves are alternate, up to 3 cm long, and are divided many times into hair-like segments, each bearing many tiny bladders. The flowering stem extends 3 inches above the water. The flower itself is yellow, ½ inch tall, and stalks in groups of 3-4. Floating bladderwort flowers between June and September. The plant is fairly delicate looking, and the forked float is not overly branched at the tips. Vegetative growth is often green to pale green. For additional resources on floating bladderwort, check out SEINet, Coastal Plain Plants and New York Natural Heritage Program.

Non-Native

Utricularia inflata – Swollen Bladderwort

Figure 3. Swollen bladderwort (photo credit Jenifer Parsons - Source)

Figure 4. Mats of swollen bladderwort (photo credit B.A. Sorrie - Source)

Swollen bladderwort is very similar to floating bladderwort in many ways; however, it is native to the **southeastern coastal plains** of the United States and is therefore considered **non-native** in New England. Swollen bladderwort is larger than floating, in most aspects. The wagon-wheel grows whorls of 5-10 leaves that grow to 3-10 cm (1-4 in), more than double the size of floating bladderwort. *U. inflata* also grows more flowers, typically in groups of 9-14, on stalks that grow 9-10 inches tall.

Just like floating bladderwort, swollen bladderwort also has alternate branching lower leaves that are submerged underwater, with bladders dotting the branches. These leaves can range between 1-7 inches, which is much larger than floating bladderwort. The vegetative growth is more brownish or reddish brown than that of native floating bladderwort.

Swollen bladderwort can grow into dense mats over large areas of water. These mats quickly crowd out native plants, limit available light, and consume the limited nutrients. Swollen bladderwort primarily reproduces by fragmentation, which means it can easily spread to new locations via a small piece attached to a boat or fishing gear. This also makes it difficult to fully remove manually, as doing so improperly can unintentionally promote the spread of the plant.

Swollen bladderwort is not a state listed invasive in New Hampshire yet, but we are monitoring its distribution in the state. Information from other states with the plant is that it goes through boom and bust cycles (some years with dense growth, some years with light growth), rarely becoming an annual problem in waterbodies. For additional resources on swollen bladderwort, check out the North Carolina Extension Gardener Plant Toolbox and the Rhode Island Department of Environmental Management.

As of right now, it is not a plant that is under active management in New Hampshire, but please feel free to report possible findings of the plant to Amy.Smagula@des.nh.gov. Photographs of what you are seeing are recommended, and please include some type of item (ruler, pen, coin) in the photo to reference scale or size of plant material.