



FACT SHEET

Freshwater Aquatic Invasive Species in Rhode Island November 2017

Fanwort



Size of fanwort relative to a penny. Two fan shaped leaves are directly opposite from each other on the stem.



Small, white flowers on the tip of the stem emerge from the water in summer, while the remainder of the plant stays below the surface.



Fanwort can grow very tall and dense, taking up most of the water column, from the sediment to the surface.

Species Description and General Information

Fanwort (*Cabomba caroliniana*) is an underwater, invasive plant that can be identified by its bright green leaves, which are divided into fine branches giving them a feathery, fan-like appearance. Two leaves are attached to the stem at the same spot directly opposite from one another. Small, white flowers stick out of the water, between May and September, on short stalks that extend from the tip of the stem. Flower buds on the stalks are surrounded by very small, floating leaves that are linear and entire, differing from the underwater leaves. Fanwort prefers shallow waters (less than 3 meters), but can survive in depths up to 10 meters. Plants thrive in nutrient-rich environments with a low pH and silty substrate and can withstand relatively high levels of turbidity. They do not grow well in alkaline waters with high calcium levels (not common to RI), and hard substrates impede plant growth. Fanwort is rooted (rhizomes), and does produce seeds, but is spread primarily through fragmentation, whereby just a piece of the plant breaks off and can settle in new locations to regenerate without an intact root system.

Why is Fanwort Considered an Invasive Species?

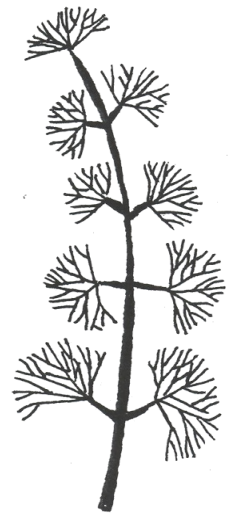
Fanwort is a competitive, quickly growing plant that can easily spread and displace native species. Dense stands of fanwort can interfere with recreational activities such as swimming, boating, paddling and fishing. Heavy infestations can lower the aesthetic quality of the water body and devalue waterfront properties. When dense stands of fanwort die off and decompose, this can lower oxygen levels, creating the potential for fish kills.

How Did Fanwort Become Established in Rhode Island?

Fanwort is native to the southeastern United States and parts of South America. It was likely introduced into natural water bodies in New England as an aquarium plant and was first observed in Rhode Island in 1936. Because plants can reproduce through fragmentation, boats, motors, fishing gear and other equipment used in infested waters that are not properly cleaned can harbor viable plants and spread fanwort to new water bodies. According to USGS, plant fragments that are kept moist can survive 6 to 8 weeks. Therefore, it is extremely important to clean and remove all plant materials from motors, boats, trailers and other gear each time they are taken out of a water body!

What Methods Can Be Used to Control Fanwort?

Because it can reproduce by fragmentation, physical control activities such as cutting or raking may unintentionally promote the spread of fanwort, if care is not taken to remove all of the plant pieces. It is recommended that hand-pulling be limited to small patches when the plant is first discovered and requires immediate removal and eradication. By law, the manual removal of submerged aquatic vegetation is restricted to that area adjacent to, but no more than fifteen feet from, existing or permitted docks, beaches or swimming areas under the Fresh Water Wetlands Regulations (Rule 6.02). Manual plant removal outside this area requires a DEM wetlands permit. The placement of benthic barriers to compress and shade out small patches of fanwort may also provide effective control but is less feasible for larger infestations, and also requires a wetlands permit or permission of the RIDEM Water Quality and Wetlands Restoration Team.



Chemical control may be effective for large populations. The DEM Division of Agriculture licenses the applicators that can apply federally regulated herbicides to treat invasive plants. Each herbicide treatment requires a specific permit from the Division of Agriculture. The most appropriate means of selecting a specific treatment plan is to consult a lake manager or licensed herbicide applicator who can provide treatment options and estimate the associated costs. A more detailed survey of the entire water body will likely be needed to develop the most effective and cost efficient long-term lake management plan.

Please Help Prevent the Spread of Fanwort in Rhode Island!

Learn to identify invasive plant species and be on the lookout for new plants in your lake.

It is much easier and cost-effective to manage a small patch of invasive plants than an entire lake covered with plants, so early detection is key! Identification resources are available on the RIDEM website at <http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/pdfs/identify.pdf>.

Be a GREAT Boater! Check, Clean, Drain & Dry!

RIDEM encourages the use of clean boat hygiene practices. **CHECK** boats (trailers, gear and motors too) for plant fragments before launching in the water AND after boats have been hauled out of the water. **CLEAN** any plant fragments, and dispose of them away from the water, and **DRAIN** your motor and bilge. Allow boats to **DRY** overnight at least 24 hours before putting in at another lake. See posted reminders at state boat ramps.

Where is fanwort found in Rhode Island?

As of November 2017, fanwort has been documented in 55 lakes or ponds, and 12 river segments. It is the second most widespread aquatic invasive plant in the state. The distribution map on the right shows locations where it has been found in red. A larger map can be found online @ <http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aismaps/cabcar.pdf>

