



# FACT SHEET

Freshwater Aquatic Invasive Species in Rhode Island November 2017

## Brazilian Elodea



Brazilian elodea



Flower of Brazilian elodea



Brazilian elodea relative to the size of a hand

### Species Description and General Information

Brazilian elodea (*Egeria densa*) is an under water, aquatic plant found in freshwater environments. Leaves are green, linear and serrated (magnification may be necessary to view serrations). Leaves are arranged around the stem in whorls of 4 to 8, helping to distinguish the plant from native Rhode Island elodea species which have whorls of 3. Further, Brazilian elodea leaves are typically longer than those of native elodea, measuring 1-3 cm. White flowers composed of three petals emerge from the water's surface in late summer to fall. Although flowers are produced, only males are found in the U.S., preventing seed production. Reproduction and dispersal occur exclusively through fragmentation. Double nodes along the stem cause branching and the formation of adventitious roots. Only plant fragments containing a double node can successfully regenerate.

### Why is Brazilian Elodea Considered an Invasive Species?

Brazilian elodea can form dense, monotypic stands that crowd out beneficial native plants. Dense stands can restrict water movement and trap sediment, resulting in water chemistry fluctuations that stress aquatic organisms. As plants grow to the surface they form thick mats of vegetation that can impede recreation such as swimming, boating and fishing, and devalue waterfront property.

### How Did Brazilian Elodea Become Established in Rhode Island?

Due to its attractiveness and reputation as a good "oxygenator", *Egeria densa* is commonly used as an aquarium plant and sold under the name *anacharis*. Initial introductions were likely the result of people pouring their fish tanks into local water bodies. Because the plant can spread by fragmentation, boats, trailers, and fishing equipment harboring plant fragments may unintentionally spread Brazilian elodea within and between water bodies.

## What Methods Can Be Used to Control Brazilian Elodea?

Because Brazilian elodea can reproduce through fragmentation, physical control is generally not recommended. Mechanical raking and cutting has the potential to unintentionally spread plant fragments and exacerbate the infestation. Physical control should be limited to hand pulling small patches and the entire plant must be removed. 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 RI Fresh Water Wetlands Regulations (Rule 6.02). Manual plant removal outside this area requires a DEM wetlands permit (for more information, contact 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 to ensure proper use. The most appropriate means of selecting a specific treatment plan is to consult a lake manager or licensed herbicide applicator, who can provide targeted treatment options and estimate associated costs. A more detailed survey of the entire water body will likely be needed to assess the severity of the infestation and develop the most effective and cost efficient long-term management plan.

## Please Help Prevent the Spread of Brazilian Elodea Species 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-efficient 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/surfqw/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 Brazilian Elodea found in Rhode Island?

As of November 2017, Brazilian Elodea has been documented in four lakes or ponds. 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/surfqw/aismaps/egeden.pdf>

