



Aquatic Nuisance Series: Duckweed

Common duckweed (*Lemna minor*) is a native plant and is found all over the United States. It can be invasive in ponds and other areas of calm water. Duckweed is a good source of food for aquatic animals and any control methods should weigh the positives and negatives of this beneficial plant.



Image by Carolyn Jewel

Description and Habitat

Duckweed is one of the smallest flowering, free-floating plants found around the world. Measuring just 1/16" to 1/4" in length, duckweed floats on the water surface in colonies not attached to the bottom. Duckweed absorbs nutrients from the leaf undersurface and a very fine root hanging from it. Duckweed can have one leaf or up to three leaves, known as fronds, about the size of a pencil eraser head, with a single root hair.

Duckweed thrives in small, still ponds. For larger lakes, duckweed may take root in a cove, but will typically not reach nuisance levels. For those smaller waterbodies, duckweed will usually be found with watermeal and can take over the entire surface of the pond. This is where duckweed can negatively affect the pond.

When duckweed covers the entire surface, it will act as a barrier between the water and the air, causing the dissolved oxygen in the pond to plummet. This can eliminate other plant species and lead to a fish kill.

Duckweed loves nutrient-rich water such as the many eutrophic lakes and ponds of New Jersey. It is spread by attaching itself to the aquatic birds that rely on it as a

food source. As the lake cools, duckweed turions fall to the bottom, ready to sprout the following spring.

Management and Control

Duckweed is an integral part of New Jersey aquatic environments. Most animals will eat it, so it is an important part of the food chain. Scientists are even looking into ways to farm duckweed to use as animal feed. Duckweed in a cove or covering less than 25% of a pond should be left alone. Since duckweed is excellent at taking up nutrients, care should be taken when treating a pond for it.



Photo: The garden at The Old Brewhouse

The best method of control is to gather the duckweed using a floating rake or boom and remove it from the waterbody. This will also remove the nutrients that are taken up by the duckweed.

Many chemicals will work to control duckweed. This should be used as a last resort since the nutrients will stay in the waterbody and become available for potentially worse plants or algae.

Additional Resources

<https://www.lakerestoration.com/t-duckweed-control.aspx>

<https://freshwaterhabitats.org.uk/wp-content/uploads/2013/09/algae-and-duckweed-1.pdf>