



Weeds & Algae on Lake Wickaboag



What They Are And What You Can Do To Help

A WORD ABOUT AQUATIC WEEDS & ALGAE

Aquatic weeds and algae are as much a part of a lake's water scape as the water itself, but not all are created equal.

On the one hand, **Native aquatic weeds and algae** can be the cornerstone of a lake's healthy and balanced ecosystem. However, on the other hand, when nourished by lawn fertilizer, agricultural or faulty septic system runoff, some may flourish to the point of becoming a nuisance, especially in dense growths around docks and in swim areas. As a result, it is important to strike a balance between preserving our native aquatic weeds and algae and removing them from limited areas to enable lake enjoyment.

Non-native aquatic weeds and algae can become highly invasive, upset the balance of a lake's ecosystem and destroy its essential biodiversity. Non-native aquatic weeds and algae must be proactively monitored and controlled, generally, through herbicide treatment applied by lake management professionals.

It is important to be able to recognize the aquatic weeds and algae most prevalent on Lake Wickaboag and understand what to do, or not do, when you encounter them. In this brochure, we classify weeds and algae into the following **three categories**:

- **Native Beneficial Weeds that should be left alone** *(Photos with green border)*
- **Native Nuisance Weeds that you may help control by hand harvesting in limited areas** *(Photos with blue border)*
- **Non-Native and Native Nuisance Weeds and Algae that must always be controlled by lake management professionals, generally by applying an herbicide** *(Photos with orange border)*

Like garden plants, aquatic weeds and algae can be recognized by their shape, color and smell, as well as by how and where they grow. A word of caution, however, is that some weeds and algae can look similar to one another, and each species can take on different characteristics depending on the season or growing conditions. Therefore, the photos in this brochure are simply representational of the species. In addition, the weeds and algae found on Lake Wickaboag can vary year-to-year based on factors such as nutrient levels, rainfall, temperatures, etc. This is why the LWPA intends to update this brochure from time to time to reflect the weeds and algae most prevalent on the Lake in a given season. Sometimes, it takes the trained eye of an aquatic plant biologist to determine a plant's species.

If you have any concerns about weeds or algae at your dock or in your swim area, simply snap a photo of it and email the photo with a description of your concern to LWPA01575@gmail.com.

NATIVE BENEFICIAL WEEDS & ALGAE...

Improve a lake's water quality and sustain its balanced ecosystem because they:

- Filter out nutrients that feed invasive weeds and algae, and emit oxygen back into the water,
- Provide food and habitat to lake wildlife such as fish, waterfowl, vertebrates and invertebrates, and
- Stabilize shorelines.

NON-NATIVE & NATIVE NUISANCE WEEDS & ALGAE...

Are detrimental to a lake's ecosystem because they:

- Crowd out and kill off native beneficial aquatic weeds and algae that sustain lake wildlife such as fish, waterfowl, turtles, etc.,
- Lower water quality by depleting the water's dissolved oxygen levels, which can lead to fish kills,
- Provide habitat for mosquitoes, and
- Impede lake enjoyment such as swimming, boating, and fishing.

HOW WEEDS & ALGAE SPREAD... Varies depending on the species.

Some that spread by seeds or shoots and runners can be abated pretty effectively by hand harvesting them and disposing of them away from the lake. For this, it is important to grab the plant at its base and pull out all, or as much as possible, of its root system. In some instances, this will provide only temporary control, as some species will re-grow from any root fragments or shoots left behind. Hand harvesting native plants should be limited to dense growth areas around docks and swim areas.

Other weeds spread by leaf and/or stem fracture. For these species, it is very important to leave these plants undisturbed at all times and leave their control to lake management professionals. If a weed that spreads by leaf or stem fracture is disturbed and its pieces flow to other areas of the lake, it can easily invade the other areas and potentially take over the entire lake.

AN OUNCE OF PREVENTION... is worth a pound of cure.

This old adage could not be truer than when it comes to lake weed and algae management. Hiring lake management professionals and applying herbicides is a very expensive endeavor. It is always best to prevent non-native aquatic weeds from entering a lake in the first place! As a result, it is critical to always practice *Best Management Practices* on and around our lakeshore properties. For further information, please refer to the LWPA's brochure titled, "*Best Management Practices: A Practical Guide To Preserving Lake Wickaboag's Water Quality*".

In addition, when launching your boat, kayak or canoe from another lake, pond or waterway, always take care to drain, clean and dry it before launching it on Lake Wickaboag to avoid introducing hitchhiking weeds, algae, snails, clams and mussels into our lake, which can create brand new, difficult and very expensive challenges for us to manage.

NATIVE BENEFICIAL WEEDS — To Be Left Alone



Bladderwort
(*Utricularia*)



Quillwort
(*Iseotes sp.*)



Ribbon-leaf Pondweed
(*Potamogeton Epihydrus*)



Watershield
(*Brasenia schreberi*)

NATIVE NUISANCE WEEDS — LIMIT HAND HARVESTING TO SWIM AND DOCK AREAS



Large-leaf Pondweed
(*Potamogeton amplifolius*)



Waterlilies
(*Nympha and Nuphar*)

NON-NATIVE AND NATIVE NUISANCE WEEDS AND ALGAE — MUST BE CONTROLLED BY PROFESSIONALS



Variable Watermilfoil
(*Myriophyllum heterophyllum*)



Spiny Niad
(*Najas Minor*)



Muskgrass Alga
(*Chara sp.*)



Niad
(*Najas*)



Waterweed
(*Elodea sp.*)



Filamentous Algae

THE LAKE WICKABOAG PRESERVATION ASSOCIATION

The Lake Wickaboag Preservation Association (LWPA) mission is to encourage, organize and support programs and activities that promote, restore and maintain the ecological health of Lake Wickaboag through involvement in issues of lake water quality and watershed protection and management. Over the years, the LWPA has been fulfilling its mission, in part, by educating West Brookfield residents through its semi-annual newsletter, brochures and annual meeting.

Visit www.lakewickaboag.com for further information, including how to become a LWPA member, or to view educational brochures or current and past LWPA newsletters.

Lake Wickaboag Preservation Association
P.O. Box 609
West Brookfield, MA 01585

ABOUT THIS BROCHURE

This brochure was published by the LWPA as a simple reference guide on how to recognize common weeds and algae on Lake Wickaboag and understand what to do, or not to do, when you encounter them. It was compiled using various expert resources. For further information, please visit www.mass.gov/doc/dcr-guide-to-aquatic-plants-in-massachusetts, www.aquaplant.tamu.edu/plant-identification/alphabetical-index, www.wildflower.org, or www.gardenia.net