



# POND VIEWS

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*Magnolia Pond #32*

## WEEDS!

Take our weeds. *Please!* The Northern Florida ponds have three types of nuisance weeds: floating, submerged, and emergent pond weeds. Each presents unique challenges and hazards to us, wildlife, and aquatic life. Let's explore the causes, hazards, and control methods for each type:

### **Floating Weeds:**

Floating weeds are plants like Water Hyacinth and Water Lettuce. They typically become a nuisance due to excess sediments or nutrients in the water, often from runoff or agricultural practices. These plants love the nutrient-rich environment. They can multiply rapidly and form dense mats on the water's surface. These mats can block sunlight, causing oxygen depletion, which can harm aquatic life. Plus, they clog waterways and interfere with the flow of water through the ponds here, important for maintaining water quality and drainage. Finally, stagnant water trapped by these weeds provides breeding grounds for mosquitoes, increasing the risk of vector-borne diseases.

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The safest way to control floating weeds is through mechanical removal, like using boats with specialized equipment to skim the surface. Biological control, introducing natural predators, is also an option. In some cases, herbicides can be used, but they must be applied carefully to minimize environmental impact.

## Submerged Weeds:

Submerged weeds, like Hydrilla or Eurasian Watermilfoil, thrive in ponds when the water is clear and nutrient-rich, often due to excess fertilizer runoff. These plants can quickly take over and outcompete native species. Oxygen depletion beneath their mats can harm or kill fish. Dense outgrowth can hinder water flow, affecting and flood control.

Divers or specialized machines can be used to physically remove submerged weeds. Grass carp (see next page) can be introduced to eat these plants, with some caution. Herbicides may also be used, but again, it should be done carefully and in accordance with environmental regulations.

## Emergent Weeds:

Emergent weeds, like Cattails, Bulrushes or Water Primrose often establish themselves in shallow water or on the pond's edge due to nutrient-rich sediment buildup. They can crowd out native vegetation and disrupt the natural balance of the ecosystem. Additionally, they can obstruct drainage and flood control systems.

Cutting or mowing emergent weeds can help control their spread. Herbicides specifically designed for aquatic use can be used, but these should be applied by professionals who follow safety and environmental guidelines.

It's essential to remember that controlling nuisance weeds in ponds should always be done thoughtfully and in accordance with local regulations. You want to minimize harm to the environment and avoid introducing more chemicals or practices that might worsen the problem. And of course, ongoing management to prevent excess nutrient runoff is crucial to long-term weed control.



*Torpedo Grass - BAD!*



*Water Spider Orchid - GOOD!!*

## INTERVIEW WITH KYLE FOLLANSBEE, SENIOR AQUATIC SPECIALIST, SOLITUDE LAKE MANAGEMENT:

***In our first installment, you mentioned that 'littoral planting', that is, along the shoreline of our ponds, would help with both algae and weed problems here. But 'emergent' weeds like Cattails, Bulrushes or Water Primrose, are a 'problem'. Tell us about the 'good' weeds.***

First of all, I think we should address the term "Weeds." A weed is an undesirable plant which may be optioned to be controlled. This can include "invasive" plants which do not originate from the US and can force out beneficial native species. This is my primary focus. Some of these found at MPA are Torpedograss (*Panicum repens*) and Alligatorweed (*Alternanthera philoxeroides*.)

We also have plants that are deemed "Nuisance-native"

species. This includes vegetation from our country but has a tendency to become excessive or unsightly. For example, cattails (*Typha* sp.) and Primrose (*Ludwigia* sp.) are generally treated as they have a tendency to spread quickly and may be woody, depending on the species.

"Native" species are from here and usually considered beneficial in a waterbody in some way. It can help with nutrient control, suppression of erosion, as well as provide food and cover for wildlife. There are a few of these growing in MPA and we also have a possibility of installing more as needed. Some examples are Arrowhead (*Sagittaria* sp.) and Pickerelweed (*Pontederia cordata*.)

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One of my favorite native plants, the Water-spider Orchid (*Habenaria repens*) is popping up all over MPA. This true orchid is endemic to the Southern United States and considered a threatened species.

These are only the "emergent" plants. There are also many submersed and floating plants found in the ponds and have their own considerations.

***How do you keep littoral plantings from getting out of control? What are the maintenance requirements?***

Through Integrated Pest Management strategies, we work to maintain desirable and undesirable vegetation. Plants can be mechanically cut or removed or herbicides



applied to keep in check. Biological control methods such as the alligatorweed flea beetle (*Agasicles hygrophila*) help to control invasive vegetation while not harming our native species. I use chemical methods to help eradicate or maintain vegetation as needed.

***Is there a point when we'll have to mechanically remove our weeds? What kind of equipment is used, and how would that be done?***

Mechanical removal of vegetation involves utilizing heavy machinery to cut or remove the growth and then transport off-site so as not to introduce the nutrients back into the waterbody. There are several types of machines designed depending on the material being removed.

***Do we really want to get rid of all grasses?***

Good question. Submersed vegetation aids in reducing the nutrients that can contribute to algae; however, grass carp eat the submersed vegetation so the nutrients will go to algae. Due to the shallow depth of the ponds, the submersed vegetation tops off pretty quickly and requires managing. The increase of light penetration will contribute to the amount of growth, as well. Sometimes I utilize pond dye to reduce this.

***Do we still have any grass-eating carp on the job in our ponds here?***

Grass carp are a non-native species and controlled by the FWC by proper permitting. They are a means of biological control to aid in control of select submersed vegetation. We repaired outflow structures and stocked more grass carp earlier this year.



***Is there anything homeowners here can do themselves to keep weeds under control?***

I appreciate any assistance in controlling unwanted vegetation. Homeowners can help with the "Cultural" aspect of Integrated Pest Management by recognizing and controlling their part in the stormwater system. They can reduce the amount of source point nutrients that get into the ponds by limiting the grass clippings or fertilizer that make it into the water and streets. All streets throughout MPA are connected to the stormwater system, so that means that a resident living nowhere near a pond can make a significant impact on any pond in the community. Homeowners living on the ponds can keep a "buffer zone" when landscaping the pond's edge. This will allow for the beneficial vegetation to work as previously discussed. Also, if residents could ***stop throwing their dog feces bags into the ponds, we would all greatly appreciate it!***



***Doo-doo NOT in our ponds!!***

