

## Lake Iamonia Lake Vegetation Index Results (8-16-2023)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake’s plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat and involves dividing a lake into 12 units and identifying plants in four of the 12 units (**Figure 1**). Plants are identified in the selected unit by a visual boat “drive by” and via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in **Table 1**.

The Lake Vegetation Index score for Lake Iamonia was 62, placing the lake’s vegetative community in the healthy category.

**Table 1.** Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

<i>Aquatic life use category</i>	<i>LVI Range</i>	<i>Description</i>
Exceptional	79–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–78	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

Forty-three species were found during the survey (**Table 2**). The native species, fragrant water lily (*Nymphaea odorata*) and fanwort (*Cabomba caroliniana*) were the most dominant species. Other species include red maple (*Acer rubrum*), maidencane (*Panicum hemitomon*), water shield (*Brasenia schreberi*), and American lotus (*Nelumbo lutea*).

The exotic hydrilla (*Hydrilla verticillata*), and water hyacinth (*Eichhornia crassipes*), both listed as Category I Invasive Exotics by the Florida Exotic Pest Control Council, are a concern in Lake Iamonia. Additionally, the exotic water spangles (*Salvinia minima*) and Cuban bulrush (*Oxycaryum cubense*) was found in the lake.

**Table 2.** Scientific and common names of the plants identified during the Lake Iamonia LVI survey (8-16-23). Names in bold are plants nonnative to Florida.

<b>Scientific Name</b>	<b>Common Name</b>
<i>Acer rubrum</i>	red maple
<i>Azolla caroliniana</i>	mosquito fern
<i>Bidens mitis</i>	smallfruit beggartick
<i>Brasenia schreberi</i>	watershield
<i>Cabomba caroliniana</i>	fanwort
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Ceratophyllum demersum</i>	coontail
<i>Cyperus odoratus</i>	fragrant flatsedge
<b><i>Eichhornia crassipes</i></b> <b>(I)</b>	water hyacinth
<i>Eleocharis baldwinii</i>	road-grass
<i>Eleocharis</i> sp.	eleocharis
<i>Eupatorium capillifolium</i>	dogfennel
<i>Habenaria repens</i>	water spider orchid
<b><i>Hydrilla verticillata</i></b> <b>(I)</b>	hydrilla
<i>Hydrocotyle</i> sp.	water pennywort
<i>Leersia hexandra</i>	southern cutgrass
<i>Liquidamber styraciflua</i>	American sweetgum
<i>Ludwigia leptocarpa</i>	anglestem primrose willow
<i>Ludwigia repens</i>	creeping primrose willow
<i>Nelumbo lutea</i>	American lotus
<i>Nuphar</i> sp.	spatterdock
<i>Nymphaea odorata</i>	fragrant waterlily

<i>Nyssa aquatica</i>	water tupelo
<i>Nyssa ogeche</i>	Ogeechee tupelo
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<b><i>Oxycaryum cubense</i></b>	Cuban bulrush
<i>Panicum hemitomon</i>	maidencane
<i>Polygonum hirsutum</i>	hairy smartweed
<i>Polygonum hydropiperoides</i>	swamp smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Rhynchospora elliotii</i>	Elliott's beaksedge
<i>Rhynchospora inundata</i>	narrowfruit horned beaksedge
<i>Sacciolepis striata</i>	American cupscale-grass
<i>Sagittaria graminea</i>	grassy arrowhead
<i>Sagittaria latifolia</i>	broadleaf arrowhead
<b><i>Salvinia minima</i></b>	water spangles
<i>Taxodium ascendens</i>	pond cypress
<i>Taxodium distichum</i>	bald cypress
<i>Toxicodendron radicans</i>	eastern poison ivy
<i>Triadenum virginicum</i>	marsh st. johnswort
<i>Utricularia foliosa</i>	leafy bladderwort
<i>Woodwardia areolata</i>	netted chain fern
<i>Xyris</i> sp.	yelloweyed grass

Names in bold are exotic species.

I - Category I Invasive Exotics

II - Category II Invasive Exotics

For additional information about the LVI please go to the Florida Department of Environmental Protection webpage:

[http://www.dep.state.fl.us/water/sas/training/docs/lvi\\_primer.pdf](http://www.dep.state.fl.us/water/sas/training/docs/lvi_primer.pdf).

For additional information about exotic Category I and II invasive exotic plants, please go to the Florida Invasive Species Council:

<https://www.floridainvasives.org/>.

**Figure 1.** Lake Iamonia showing unit divisions. Circled unit numbers denotes surveyed units.

