

Lake Iamonia Lake Vegetation Index Results (7-26-2021)

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 4 of the 12 units (Figure 1). Plants are identified in the selected unit by a visual boat “drive by” and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

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.

The Lake Vegetation Index score for Lake Iamonia was 63, placing the lake’s vegetative community in the healthy category.

Forty-five species were found during the survey. 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*), torpedo grass (*Panicum repens*) and water hyacinth (*Eichhornia crassipes*) listed as

Category I Invasive Exotics by the Florida Exotic Pest Control Council <http://www.fleppc.org/> are a concern in Lake Iamonia. Alligator weed (*Alternanthera philoxeroides*), rattlebox (*Sesbania punicea*) were Category II Invasive Exotics found in the lake. Additionally, the exotic water spangles (*Salvinia minima*) was found in the lake.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Iamonia LVI survey (7-26-21). Names in bold are plants nonnative to Florida.

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Alternanthera philoxeroides(II)</i>	alligator weed
<i>Ampelopsis arborea</i>	peppervine
<i>Boehmeria cylindrica</i>	false nettle
<i>Brasenia schreberi</i>	watershield
<i>Cabomba caroliniana</i>	fanwort
<i>Campsis radicans</i>	trumpet vine
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Ceratophyllum demersum</i>	coontail
<i>Eichhornia crassipes (I)</i>	water hyacinth
<i>Eleocharis baldwinii</i>	road-grass
<i>Eleocharis baldwinii</i>	road-grass
<i>Eleocharis</i> sp.	eleocharis
<i>Eupatorium capillifolium</i>	dogfennel
<i>Habenaria repens</i>	water spider orchid
<i>Hibiscus moscheutos</i>	crimson-eyed rosemallow
<i>Hydrilla verticillata (I)</i>	hydrilla
<i>Hydrocotyle</i> sp.	water pennywort
<i>Hypericum fasciculatum</i>	peelbark St. Johns wort
<i>Juncus effusus</i>	common rush
<i>Limnobium spongia</i>	frog's bit
<i>Liquidamber styraciflua</i>	American sweetgum
<i>Ludwigia octovalvis</i>	Mexican primrose willow
<i>Nelumbo lutea</i>	American lotus
<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
<i>Panicum hemitomon</i>	maidencane
<i>Panicum repens(I)</i>	torpedo grass

<i>Polygonum densiflorum (glabrum)</i>	denseflower knotweed
<i>Polygonum punctatum</i>	dotted smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Quercus nigra</i>	water oak
<i>Quercus virginiana</i>	southern live oak
<i>Sagittaria latifolia</i>	broadleaf arrowhead
<i>Salix carolina</i>	coastal plain willow
<i>Salvinia minima</i>	water spangles
<i>Sesbania punicea(II)</i>	rattlebox
<i>Taxodium ascendens</i>	pond cypress
<i>Taxodium distichum</i>	bald cypress
<i>Triadenum virginicum</i>	marsh st. johnswort
<i>Utricularia biflora (U. gibba)</i>	humped bladderwort
<i>Utricularia foliosa</i>	leafy bladderwort
<i>Utricularia purpurea</i>	eastern purple bladderwort
<i>Vitis rotundifolia</i>	muscadine

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;

<https://floridadep.gov/dear/water-quality-standards-program/documents/lake-vegetation-index-primer>.

For additional information about exotic Category I and II invasive exotic plants, please go to the Florida Exotic Pest Plant Council

<https://floridainvasivespecies.org/index.cfm>.

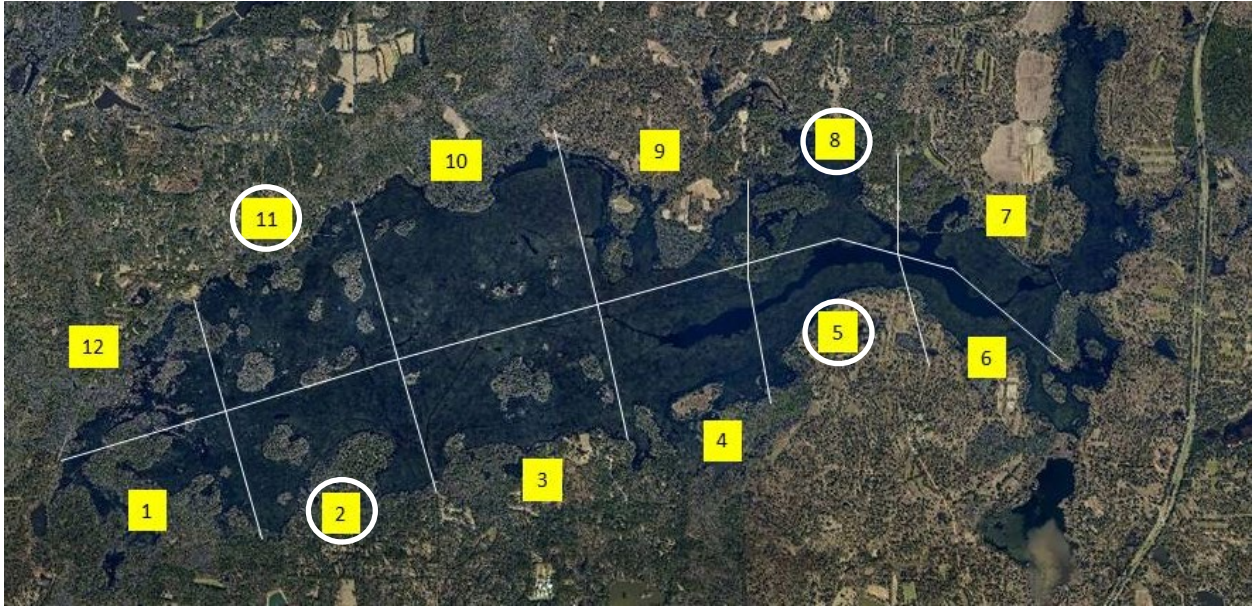


FIGURE 1. Lake Iamonia showing unit divisions. Circled unit numbers denotes surveyed units.