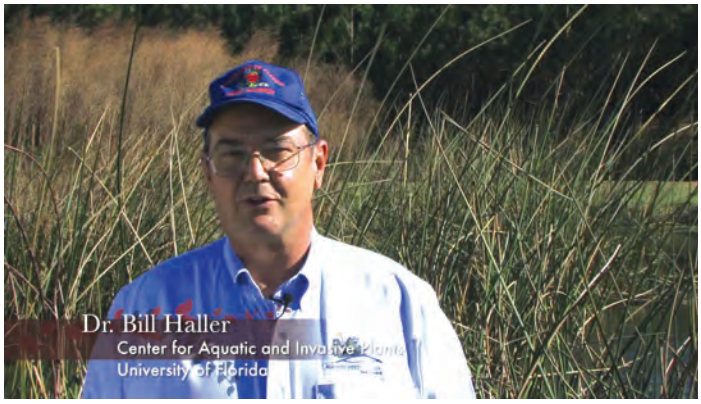
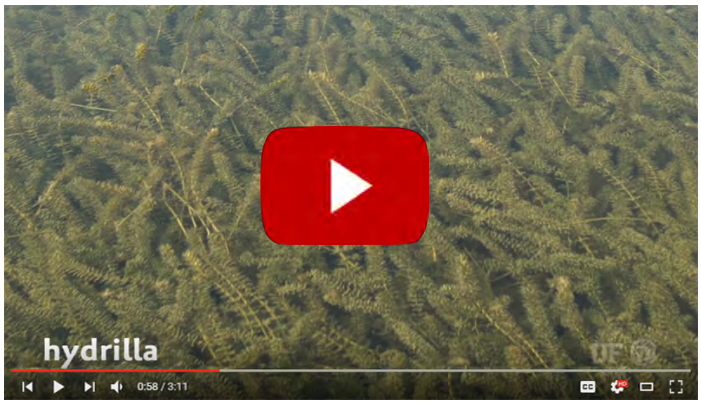
# Why We Manage Aquatic Invasive Plants

UF UNIVERSITY of FLORIDA
IFAS Extension

Invasive aquatic plants harm Florida's natural environment and lead to a loss of biodiversity. They usually cannot be completely eradicated and will grow back quickly if not managed. The Florida Legislature designated the Florida Fish and Wildlife Conservation Commission (FWC) as the lead agency to "direct the control, eradication, and regulation of noxious aquatic weeds and direct the research and planning related to these activities . . . so as to protect human health, safety, and recreation and, to the extent possible, prevent injury to plant and animal life and property." FWC currently controls about 12 of the most problematic aquatic invasive plants. In Florida, hydrilla and water hyacinth are two of the the worst aquatic weeds, requiring constant attention and management.




**Scenes from "Why We Manage Aquatic Invasive Plants" video**

## Hydrilla

*Hydrilla verticillata* was first introduced into Florida from Sri Lanka as an aquarium plant during the early 1950s. Hydrilla can cover an entire waterbody in as little as a few seasons, and grow from 30% coverage to 70% coverage of a lake in just a few months. Hydrilla can spread by fragmentation, so nearly every fragment that breaks off can start a new plant. This can lead to dense stands of hydrilla where nothing else grows. Hydrilla now infests tens of thousands of acres in Florida public waters. It also has spread to about 30 states as far away as Massachusetts and California. Hydrilla requires constant management, most often using chemical and mechanical control methods. Management costs for this plant in Florida public waters approach $20 million each year.

## Water hyacinth

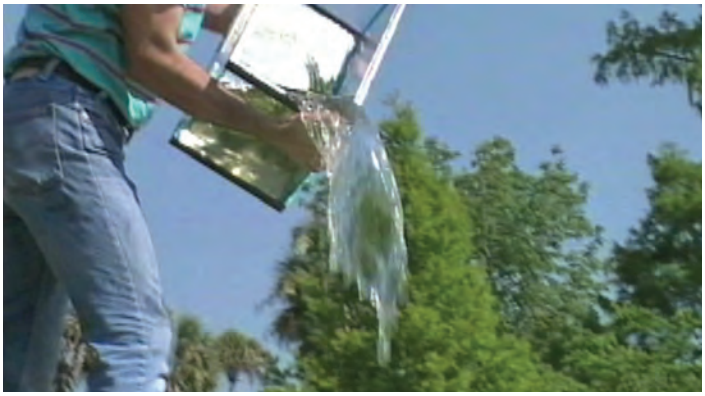
*Eichhornia crassipes* is a floating plant native to South America. It was introduced into Florida during the late 1800s. Water hyacinth is one of the fastest growing plants; it can double its population in 6-18 days. When it covers the water's surface, sunlight is prevented from reaching native plants below. Control programs in recent decades have successfully reduced water hyacinth to low levels in most public waterways in Florida. This was not the case in earlier times. Florida has been managing aquatic invasive plants, beginning with water hyacinth, for over 110 years.

The goal of the FWC Invasive Plant Management Section is to manage small infestations of invasive plants *before* they get out of control. Decades of experience and applied research taught us that keeping problem plants at low levels is the most economical and environmentally sound strategy for managing invasive plants. This approach is known as "maintenance control." Many of us use the same strategy with our lawns or cars; keeping something maintained is easier and cheaper than waiting for a problem to develop, which leads to "crisis management."

**Water hyacinth up close (left), and completely covering Lake Rousseau (right) many years ago.**

**Harvester working on Lake Okeechobee, 1939**


**Hydrilla can make boating extremely difficult.**



**Never empty your aquarium into a body of water, not even a ditch or canal.**

**Hydrilla infestation**

In Florida, "maintenance control" of invasive aquatic plants:

- Reduces the environmental impact of noxious weeds;
- Provides greater use of our waters;
- Incorporates integrated management methods;
- Uses less herbicide;
- Greatly reduces the cost of long-term management;
- Promotes public confidence and cooperation.

The FWC Invasive Plant Management Section oversees the maintenance control program for aquatic plants in Florida's public waters. They collaborate with Water Management Districts, city and county governments, and others charged with managing public waters.

Aquatic plants are managed with mechanical, biological, physical, or chemical treatment methods. Treatment is based on the specific conditions and circumstances of each waterbody.

- **Mechanical control** involves using large machines in the water to harvest and remove aquatic plants.
- **Biological control** involves the use of animals, insects or bacteria that feed on targeted plants. Grass carp are an example of a biological control agent.
- **Cultural or physical control** entails hand-pulling, raking, and water-level manipulation.
- **Chemical control** involves the use of registered aquatic herbicides to manage plants. Before an aquatic herbicide is used in Florida waters, it must undergo extensive testing and risk-analysis for human health, fish, wildlife, and the environment and be registered for use by the United States Environmental Protection Agency (US EPA). FWC only uses EPA-registered herbicides that are accepted for use in state waters by the Florida Department of Agriculture and Consumer Services (FDACS).

Since no one knows what the next aquatic invasive plant will be, prevention and education are needed to protect our water resources. **We can be part of the solution by following these easy steps:**

- Practice good stewardship: never transport Florida's aquatic or wetland plants to other areas, and never empty your aquarium into a body of water or canal.
- Learn to identify which plants are invasive in your area.
- When disposing of plants, completely dry or freeze them, and put in the trash (not the compost).
- Avoid chopping aquatic plants with boat propellers as some plant fragments can grow into new infestations.
- Remove plant matter from boats/trailers after use.

*View the video, "Why We Manage Aquatic Invasive Plants"*

**plants.ifas.ufl.edu/manage/why-manage-plants**

*For information on aquatic plant management in Florida:*

**plants.ifas.ufl.edu/manage**

**myfwc.com/wildlifehabitats/habitat/invasive-plants**

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Center for Aquatic and Invasive Plants

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