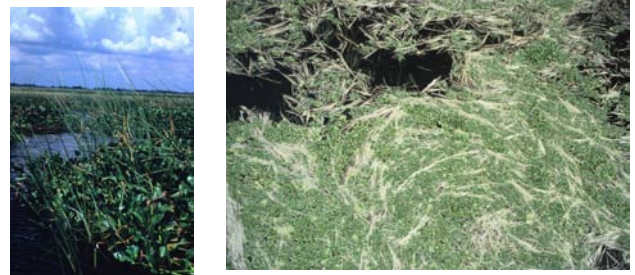
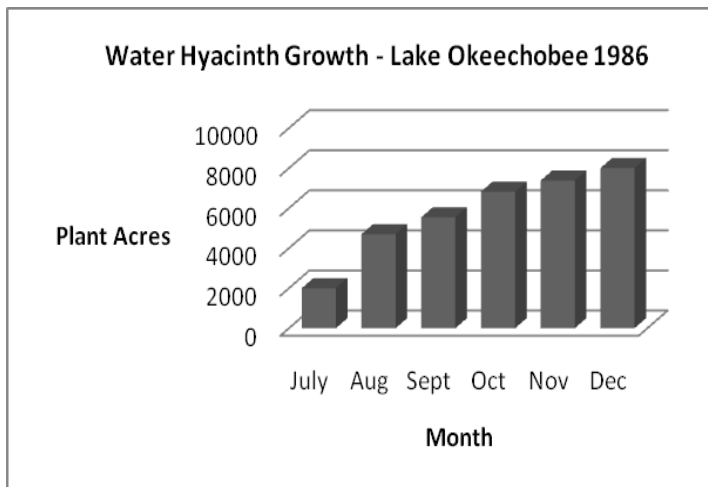


Lake Okeechobee – A Maintenance Control Case Study

A herbicide use moratorium for the control of water hyacinth was declared in July, 1986 on Lake Okeechobee in response to a widespread algae bloom. Herbicide use was replaced with much less effective mechanical harvesting, resulting in an expansion of water hyacinth from 2,000 acres to 8,000 acres in five months, despite continued mechanical harvester and biological control activity. In the final analysis, it took more than two years, \$2 million and the control of 11,000 acres of water hyacinth using herbicide to re-establish maintenance control of water hyacinth in Lake Okeechobee.



The figure on the left demonstrates the rapid expansion of water hyacinth on Lake Okeechobee if not frequently and routinely managed.

The photos above show water hyacinth crowding, covering and uprooting beneficial native plants that provided fish and waterfowl habitat and food as well as nesting sites for endangered snail kites.



By late 1986, water hyacinth and water lettuce blocked nearly all of the flood control structures and navigation canals within Lake Okeechobee. On the left is a harvester (in circle) struggling to remove floating plant masses from the Moorehaven Canal just upstream of the navigation lock into the Caloosahatchee River.

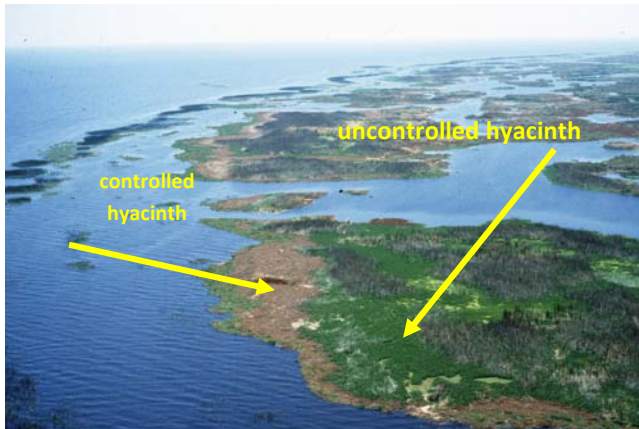


Water hyacinth (dark) and water lettuce (light) block the public and commercial boat ramps at Okeetantie on the northeast side of Lake Okeechobee in late summer of 1986.

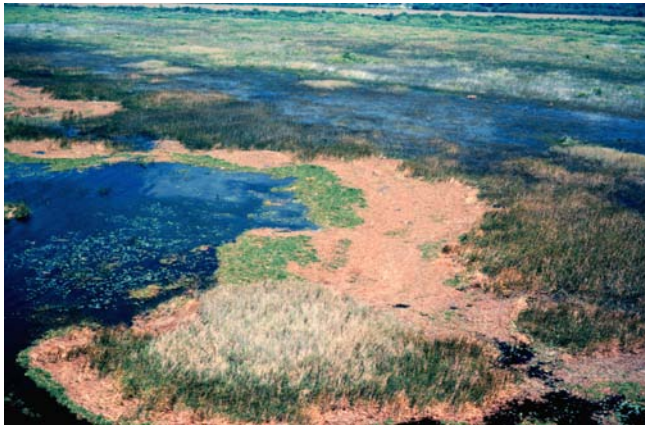


The following photos were taken in April 1987, demonstrating the slow process of regaining Maintenance Control

At left is the public beach and pier on the north end of Lake Okeechobee. Brown color in the ensuing photos is controlled water hyacinth. Diquat herbicide was the primary herbicide used because it controls both water hyacinth and water lettuce but does not kill beneficial plants like bulrush or spikerush.



The outer edge of the water hyacinth mat in the marsh just south of the Kissimmee River entrance into Lake Okeechobee has been controlled (brown). A wide band of hyacinth remained (dark green) to be controlled after the initial plants sunk and decomposed. All the while new plants bud off of existing plants, seeds germinate, and hyacinth drifts in from other areas of the lake. Because of this constant regrowth and recruitment, regaining control took well over a year.



Controlling water hyacinth around Rita Island on the south end of Lake Okeechobee.



Controlling water hyacinth in the Chancey Bay area of northeast Lake Okeechobee.