

Lake Harney 2-15-2011

On **15 February 2011**, Seminole County Lake Management Program (SCLMP) personnel Marie Lackey, Dean G Barber and Thomas Calhoun surveyed the aquatic plants of **Lake Harney**. The submersed aquatic vegetation (SAV) observed consisted of: coontail in shallow water, chara to a depth of 1.5 feet, road grass in shallow water, filamentous algae to 1.5 feet, hydrilla only in the boat ramp canal in Gopher Sough (0.1 acres) and eelgrass to 2 feet. As previously reported, eelgrass was the dominant SAV, however in previous reports it was mostly observed on the western shore, with dense monocultures out to a depth of 2 feet and no or little eelgrass on the southern, northern and eastern shore. During this survey all shores mostly consisted of new small plants with good densities (30-40 plants/square meter) out to 1.5 feet, then less dense to 2 feet. Only the western shore had larger plants, which were mostly in 0.5 to 1.5 feet. This can be expected, as this shoreline would have eelgrass when the others did not, thereby having the older plants. The southern shore had the most significant increase of SAV; from where 3 months previous there were almost no SAV, especially eelgrass. Here the eelgrass was abundant with chara and coontail interspersed with the new small plants. None of the eelgrass was tall enough to reach the surface, at its best it was 0.5 feet below it. Filamentous algae was present on the bottom interspersed with the SAV. In some of the poor circulating pockets along the SE shore it was thick on the surface and the bottom, about 4-5 acres. Emergent aquatic plants populations are down, impacted by the cold winter months and low water level. Although decreased three square (*Scirpus americanus/pungens*) continues to be the dominant emergent plant. Most of these plants are new growth that should be a significant population coming into the spring. Otherwise with the weather and low water other emergent populations were reduced; especially knot grass and cord grass. However the cord grass along the SW shore that is above the water level was doing well. There was only about 0.1 acres of water hyacinth and water lettuce. No exotic island apple snails were observed, where previously the egg clusters were seen from the NW to the NE on the stems of the emergent aquatic vegetation.



Lake Jesup 2-15-2011

On **15 February 2011** SCLMP personnel Marie Lackey, Dean G Barber and Thomas Calhoun surveyed the aquatic plants of **Lake Jesup**. SAV observed consisted of: coontail in shallow water, road grass in shallow water, hydrilla with less than 0.1 acres of the invasive near to Black Hammock boat ramp and Overlook Park, southern naiad at Overlook Park and eelgrass to a depth of 1.5 feet within the FWC enclosures. Coontail was observed in small populations at Overlook Park with one small cluster of southern naiad and several small clusters of hydrilla. This is the first time that southern naiad has been documented in Lake Jesup in several years. Coontail, the dominant SAV, was again observed on the NW side of the lake, but in larger populations, sometimes as much as 0.1 acre. Two to three acres were observed, all adjacent to the phragmite shore. No hydrilla was observed at the south Sanford Avenue boat ramp, where hydrilla was previously reported. Eelgrass was observed only in the FWC enclosures. Five acres of water hyacinth and only 0.2 acres of water lettuce were present. Most of the hyacinth was in the NE, up against the phragmite. All were new plants coming off of surviving frost impacted plants. Re-vegetated aquatic plants within Site 1, both in the water and adjacent to the bank, are doing well. Most species that are in the water, mainly pickerelweed and bulrush, are 2 to 3 times their planted size. The trees, rush and cord grass are healthy and still not impacted by invasive species, like phragmite and para grass. Another month without significant freezes and they should have substantial growth. Overlook Park emergent plants, especially pickerelweed and duck potato have been reduced to a few populations. The cordgrass and

wetland trees are doing well. The only torpedo grass seen in the lake continues to be present at the South Sanford Avenue boat ramp. Fire flag has continued to expand, especially in Site 1 west of the Hwy 417 Bridge.



Lake Jesup 2-2-2011

On **2 February 2011** Seminole County Lake Management Program (SCLMP) personnel Marie Lackey, Dean G Barber and Thomas Calhoun reviewed the status of the aquatic plant planting at **Lake Jesup** Site 1 (north shore either side of the Highway 417 Bridge) and Overlook Park. On Site 1, both the wetland trees and cordgrass (*Spartina bakeri*), all above water level, were impacted by winter weather, however showing some regrowth, especially the cordgrass. More time will tell. With the recent mowing done just upland of these planting and the herbicide treatment within these plants, these trees/plants are presently free to expand with minimal impact from other species. In the water ward area of Site 1 the plants, mainly pickerelweed (*Pontederia cordata*) and bulrush (*Scirpus californicus*), are present at over 90% of the original planting. In fact, most clusters are 2-3 times the original planting size. Other desirable native species that were previously on site, especially knotgrass (*Paspalidium geminatum*) and fire flag (*Thalia geniculata*) are also expanding. Phragmites (*Phragmites australis*) is still showing little regrowth. No hydrilla (*Hydrilla verticillata*) was observed. Eelgrass was observed only in the FWC enclosures.

At Overlook Park the wetland trees are stable, similar to Site 1. Within the next few months it will be more apparent as to their status. The cordgrass (*Spartina bakeri*) is well established,

thick and dominate both under the boardwalk and the previously open beach area. The original planted clusters have expanded into the adjacent clusters, appearing as a large cordgrass stand. Less than 20% of the in water or water's edge species, mainly pickerelweed (*Pontederia cordata*) and duck potato (*Sagittaria lancifolia*) are evident. Hopefully, with the spring these sites should be more apparent. Although hydrilla was present at several sites within Overlook Park on the previous survey, none was observed during this inspection.



Monroe 1-5-2011

On **January 5th 2011**, Seminole County Lake Management Program (SCLMP) personnel Thomas Calhoun, Marie Lackey and Volunteer Ryan Moorhead surveyed the aquatic plants in **Lake Monroe**.

Only three native submerged aquatic vegetation (SAV) were observed: coontail (*Ceratophyllum demersum*), southern naiad (*Najas guadalupensis*) and eelgrass (*Valisneria americana*) to a depth of 3 feet, and one exotic SAV, hydrilla (*Hydrilla verticillata*) to a depth of 2 feet. The SAV was found to a depth 1 foot less than the previous inspection due to the low water conditions.

Hydrilla found on South West shore:



Eelgrass is the dominant SAV throughout the lake but Hydrilla has expanded to almost the same abundance. Along the SW shoreline, eelgrass and hydrilla has increased and was observed in dense populations reaching the surface from 2 feet. Hydrilla and eelgrass were present along the southern seawall extending out +1,000 ft. Along the southeast shore to the northeast (almost to the northern boat ramp) southern naiad and hydrilla was observed with hydrilla topping out in places around Stone Island. This east-northeast area was void of vegetation during the last survey. Along the north shore, from the boat ramp west, eelgrass is dominant followed by southern naiad and hydrilla; all to 2 feet. . The greatest population of SAV is along the western side, with thick populations extending out to the bulrush, with hydrilla being dominant, followed by coontail, then eelgrass. Filamentous algae is abundant inshore along most of the shoreline.

Water hyacinth and water lettuce were recently treated, with less than 5 acres of untreated hyacinth in the lake.

Lake Harney 11-30-2010

On **30 November 2010**, Seminole County Lake Management Program (SCLMP) personnel Marie Lackey, Dean G Barber and Thomas Calhoun surveyed the aquatic plants in **Lake Harney**. The only submersed aquatic vegetation (SAV) observed consisted of: filamentous algae to a depth of 1.5 feet, stonewort (*Nitella sp.*) to 1 foot, and eelgrass (*Vallisneria americana*) to 2 feet. There was very little stonewort observed. Eelgrass was the dominant SAV, mostly observed on the western shore, with dense monocultures out to a depth of 2 feet. Eelgrass was reaching the surface from depths up to 1.5 feet. There was no eelgrass observed along the northern and southern shore. The eastern shore had eelgrass out to 1.5 feet, but these populations were sparse and the plants were reduced in size. Overall the SAV populations were very similar to observations from previous survey (1 September 2010) where SAV populations were significantly reduced. Emergent aquatic plants populations also continue to be decreasing with three square (*Scirpus americanus/pungens*) being the dominant emergent plant followed by knot grass (*Paspalidium geminatum*) and cord grass (*Spartina bakeri*). With low water elevations, cord grass was doing well on the water's edge. There was approximately a tenth of an acre of water hyacinth and several tenth acres of water lettuce. No exotic island apple snails were observed, where previously the egg clusters were seen from the NW to the NE on the stems of the emergent aquatic vegetation.



Lake Jesup 11-30-2010

On **30 November 2010** SCLMP personnel Marie Lackey, Dean G Barber and Thomas Calhoun surveyed the aquatic plants in **Lake Jesup**. The only SAV observed was hydrilla, of which there was 0.1 acres of the invasive at both the Black Hammock canal and Overlook Park. The Overlook Park population had expanded from the previous survey. Healthy stands at each site were in shallow water less than a foot deep. Only two strands of hydrilla was seen in the area either side of the northern section of the Highway 417 Bridge, where FWC contractor had treated hydrilla recently. None was observed at the south Sanford Avenue boat ramp, where hydrilla was previously present. Coontail, which had been the previous dominant SAV, was not observed during this survey, where it had previously been present from the eastern side of the Highway 417 Bridge to the northern end of the lake at Highway 46. Eelgrass was observed only in the FWC enclosures. Ten acres of water hyacinth and over 20 acres of water lettuce were present, 15 of water lettuce were in and adjacent to Soldiers Creek. Although water hyacinth were in the planted area, mostly east of the northern section of the bridge, all of the plants were stranded on the shore, blown in by wind and wave action. The only torpedo grass seen continues to be present at the South Sanford Avenue boat ramp. Fire flag (*Thalia geniculata*) has increase significantly and established in new location within the lake, competing with phragmites for space.

