

Report to ALPOA Board on the Findings of the Aquatic Plant Lake Mapping Project November 4, 2013

Two samplings occurred this year, the first in August and the second in November.

On August 11, the Invasive Species Committee of Ann Lake Property Owners Association (ALPOA) undertook a mapping of the aquatic plants within Ann Lake. This was a follow on to last year's lake mapping. The goal was to determine:

- 1) Were there any new plants found.
- 2) How did the mapping compare to the results of 2012.

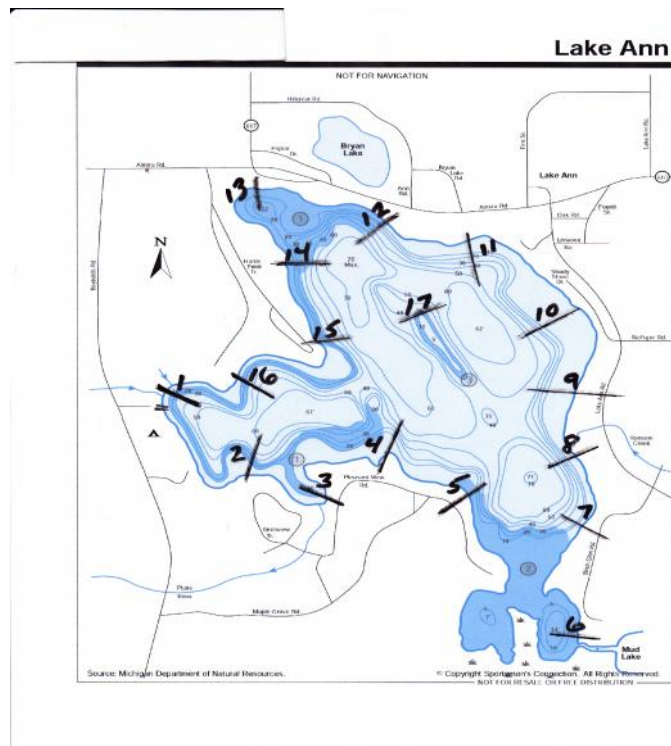
This year we decided to change the format slightly. Since we did not find anything of significance at 1 foot, and it was hard to get the pontoon boat consistently at 1 foot, we decided to forego this sampling. Since we only had 2 rakes, we decided to only sample to the left and right of the pontoon. This allowed us to form 2 identification teams, Kathy Garmes-Taylor and Bethany Onthank as one team and Drew Peterson and Maggie Sowers as the second team. Dianne Minicucci was the scribe and Kent Taylor was the boat driver.

Since we only did 2 samplings at the 4 foot and 8 foot levels, rather than the 4 required by the MLSA procedure, we changed how the density was determined. Last year, the density level of the weed was based on the number of rakes which retrieved that weed, a rating of 1-4. If only that weed was found on all 4 rakes, the density level was increased to 5.

This year, we judged the density of weeds found on each rake. We then used the density field to adjust for that rating. For example, if we thought native milfoil was moderate (a rating of 3), it was marked in the table as found in each of the 2 rakes plus a density of 1 to add up to the rating of 3. This process can be changed if statistically it makes sense to go back to the method recommended by MLSA.

One interesting thing was what plants we DID NOT find this year. This year we found 12 plants, last year we found 17 (it looks like 18 on the 2012 report because bulrush is on there twice). The plants we didn't find were clasping-leaf pondweed, coontail, sago pondweed, water marigold, and whitestem pondweed. What hasn't been done yet is a comparison of what plants were found at each location year over year.

The same 17 transect points used in 2012 were used in 2013. The only concern raised this year was we found a form of bushy pondweed different than what we expected. This plant was confirmed to be bushy pondweed with Dr. Jo Latimore.



What follows in this report is a series of charts summarizing all of the work noted above. These tables show plant types and densities at all transects and all sampling depths. They are organized both by plant type and locations (the 17 transect points).

In addition, a small sampling was completed on November 4, 2013, to confirm that the plant of concern in 2012 was indeed *Nitella*. Samples were between 25 and 30 feet at 3 sites: the entry to Platte River between transects 2 and 3, transect 4 and midway between transects 4 and 5. Once again, only *Nitella* was found at these locations. This information was not included the following charts.

Conclusion

The Committee stands behind the work done in generating the data and creating this report. Based on the data found this year as well as last year, we feel this project should be viewed as having a very positive outcome. As a result of these activities we can now confidently state that currently our lake is in very good shape with stable fish and plant populations. The committee has not yet made a recommendation on how often this mapping should be completed; this will be discussed by the committee in 2014.

If you have any questions concerning this report or would like additional information on its findings, you can contact the chair of the committee, Kathy Garmes-Taylor, at kathy@annlake.org. Other members of the committee are:

- Dianne Minicucci
- Bethany Onthank
- Drew Peterson
- Maggie Sowers

Transect Diversity Charts

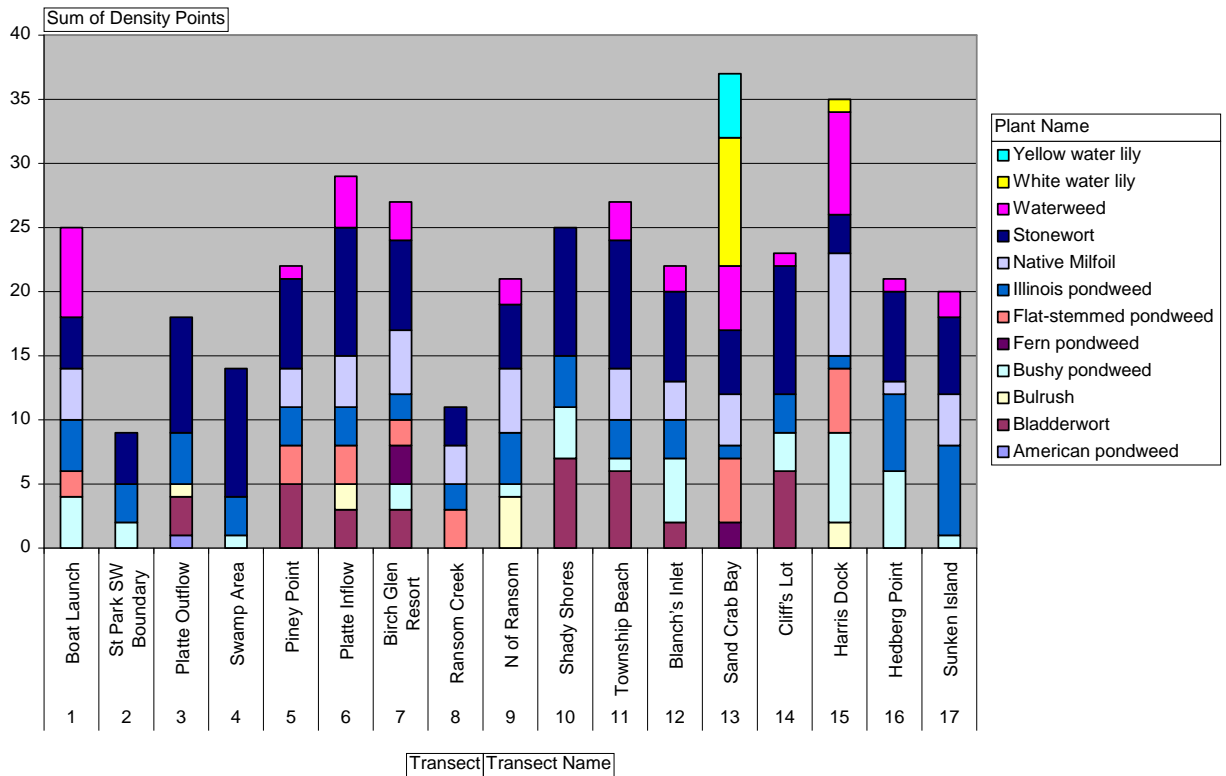
There are 3 charts which show the plants found at each transect location. The first chart shows all plants found. The following charts are for each of the specific depths: 4 feet and 8 feet.

To read the charts, the plants found are shown in the top to bottom order depicted in the key. For example, at the first transect, the Boat Launch, the plants found are: Bushy Pondweed, Flat-stemmed Pondweed, Illinois Pondweed, Native Milfoil, Stonewort, and Waterweed. Using these plants as reference points, it will help you determine the other plants found at each transect.

Lake-wide Plant Densities - All Depths

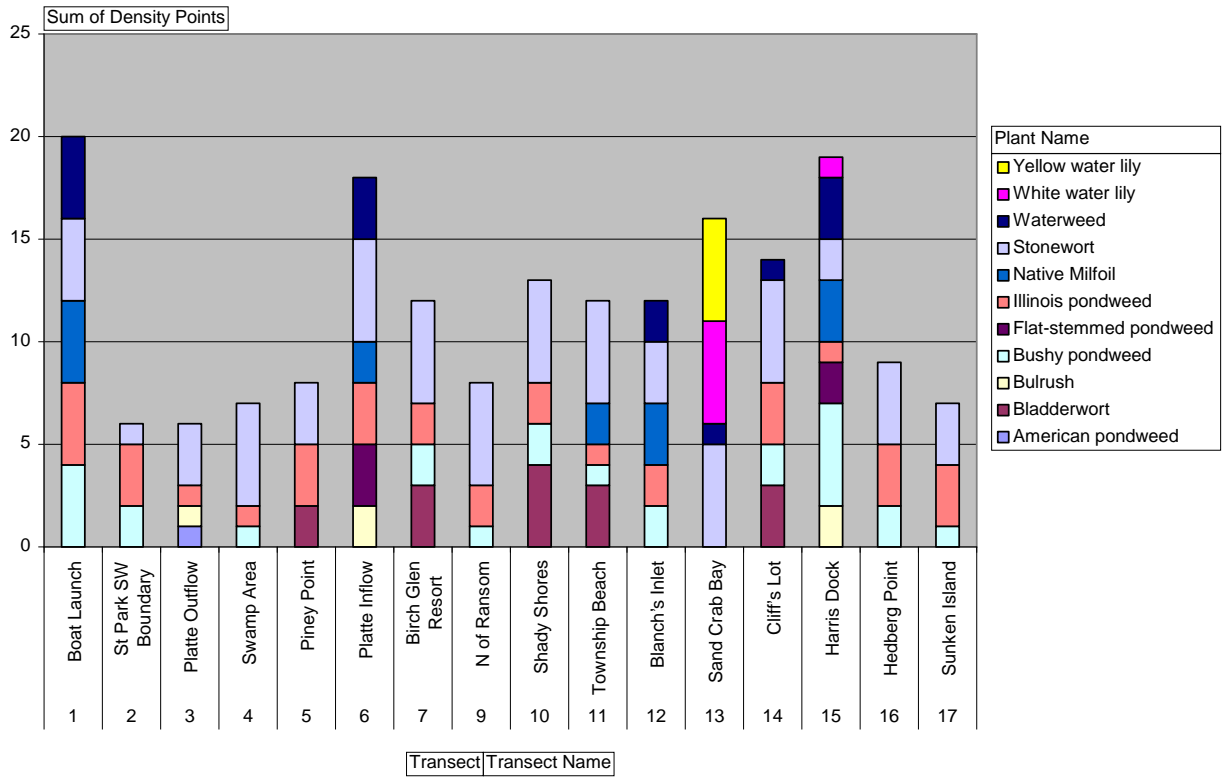
The most common plants found in the lake were Waterweed, Stonewort, Native Milfoil and Illinois Pondweed, all native.

Depth in Feet (All)



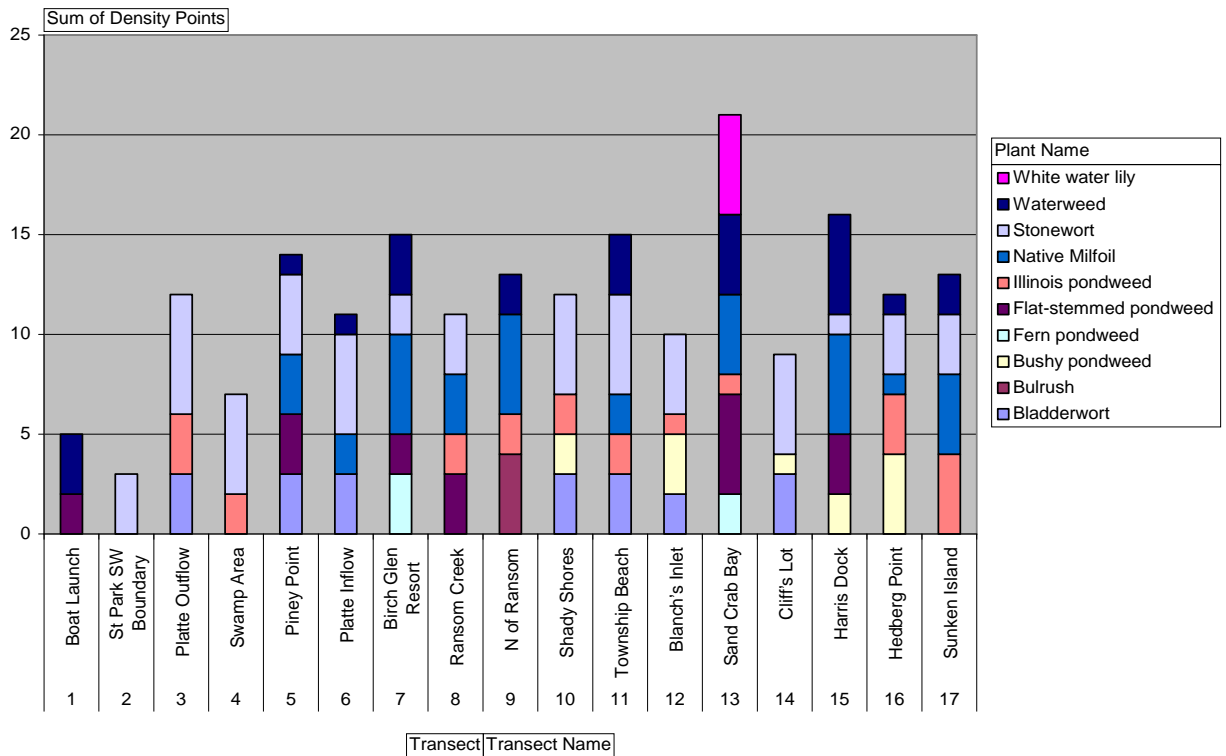
Plants Densities at 4 feet Sorted by Transect

Depth in Feet 4



Plants Densities at 8 Feet Sorted by Transect

Depth in Feet 8



Plant Location Charts

There are 3 charts which show each transect at which a specific plant is found. The first chart shows all plants found. The following charts are for each of the specific depths: 4 feet and 8 feet.

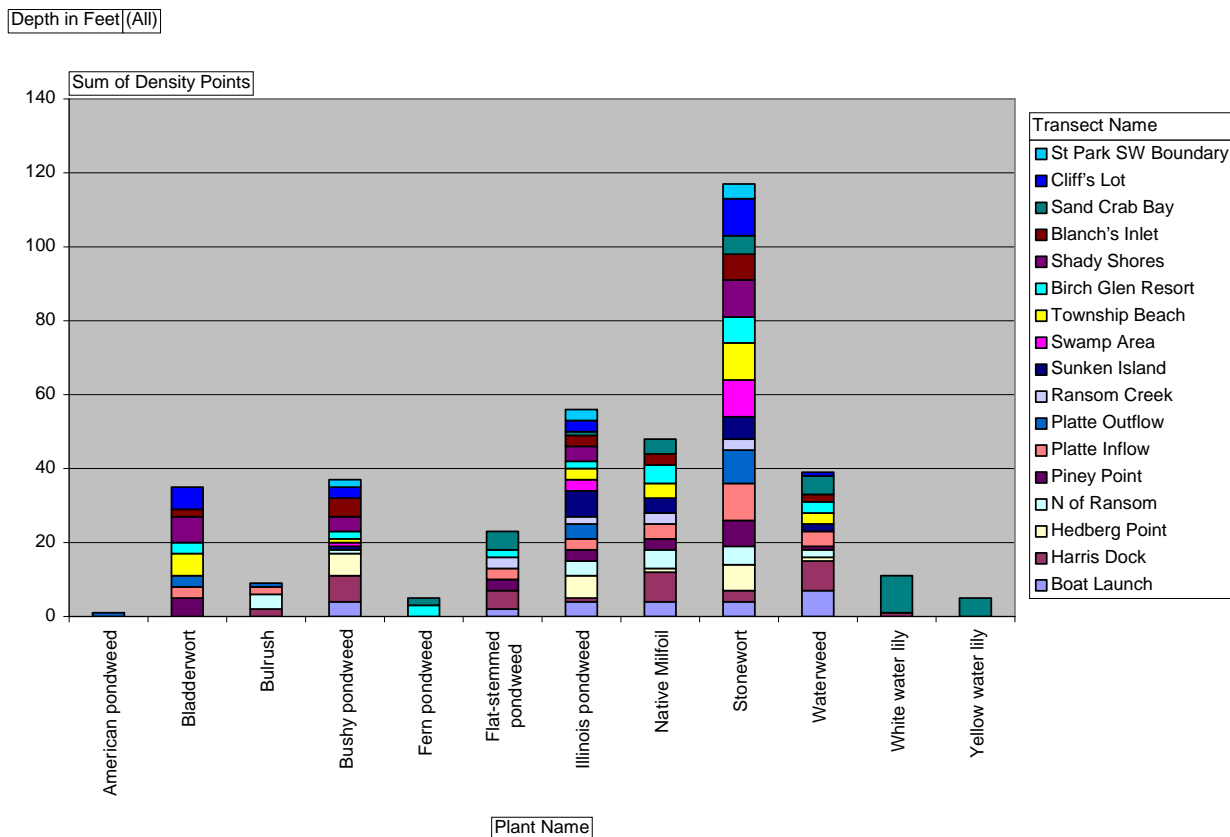
There were a total of 12 plants found in Lake Ann, compared to 18 in 2012. The plants we didn't find were clasping-leaf pondweed, coontail, sago pondweed, water marigold, and whitestem pondweed. What hasn't been done yet is a comparison of what plants were found at each location year over year

Not all plants are found at each depth. For instance, white and yellow water lilies are only found at 4 foot.

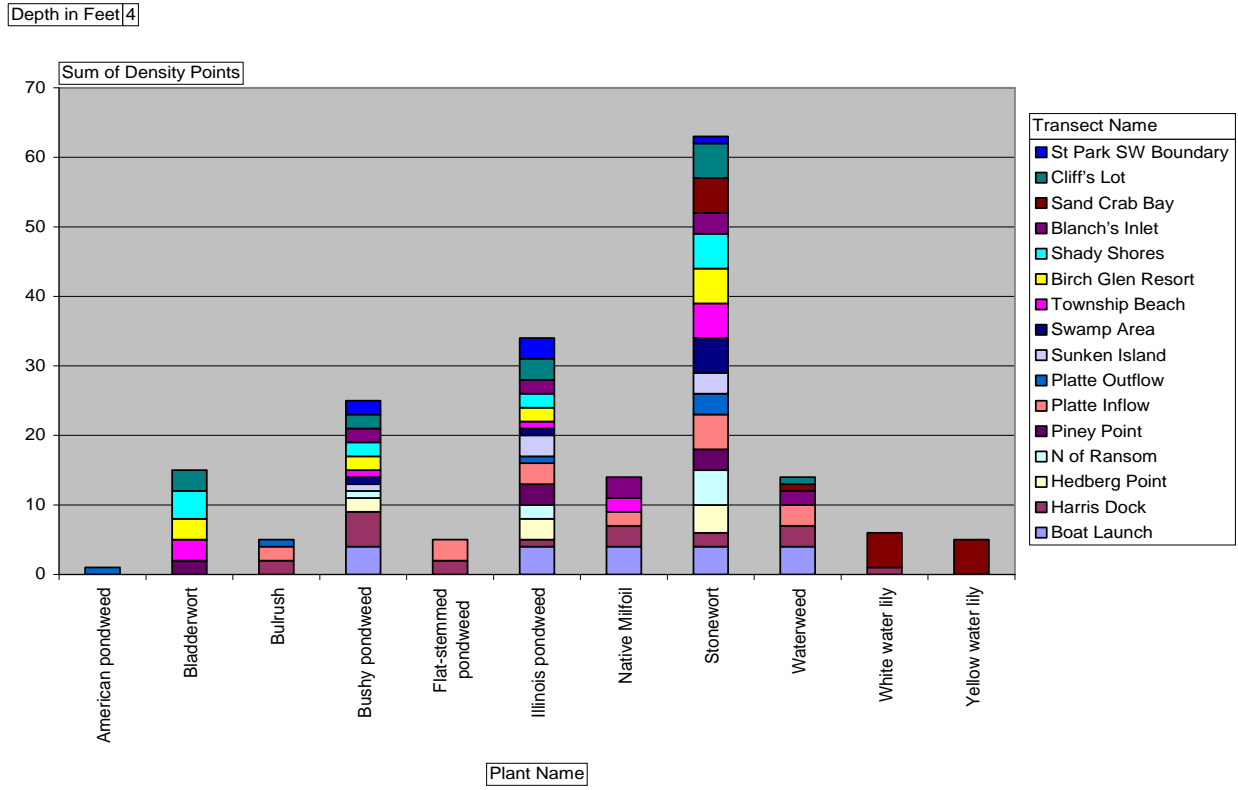
Native stonewort was found at every transect.

To read the charts, the transects found are shown in the order depicted in the key. Transects are NOT listed in the key in the order they were sampled.

Lake-wide Plant Densities Sorted by Species



Plant Densities at 4 Feet Sorted by Species



Plants Found at 8 feet Sorted by Species

