

## Trego Lake District Special Meeting – AIRR Project Update (LEAPS 8/21/2020)

The following is a Project Update for the early detection and rapid response (AIRR) grant-funded project that began in early 2020. The final project is not to be complete until December 31, 2021. In 2020, the main focus of the project was collecting aquatic plant data through several surveys including a cold-water curly-leaf pondweed survey, a warm-water summer point-intercept survey, and a fall EWM bed mapping survey. These surveys are to be completed by Matt Berg of Endangered Resource Services.

The actual aquatic plant management plan will be updated in 2021 by LEAPS.

### 2020 Curly-leaf Pondweed (CLP) in Trego Lake

During the spring survey of Trego Lake completed on June 14, CLP was found at 63 out of 256 points with vegetation (24.6%). Of these points, 40 were considered moderate or dense in nature indicating a significant CLP infestation covering 8.1% of the lake's surface and 15.6% of the area of the lake with aquatic plants present. Management actions will be discussed during the update of the existing APM Plan.



Figure 1: *Potamogeton crispus* (Curly-leaf pondweed) Present at 63 sites with vegetation during the June 14 survey

## 2020 Native Aquatic Plants in Trego Lake

Matt Berg completed the warm-water, summer point-intercept survey of Trego Lake in late July. While the results presented here are only preliminary, it does give some idea of what is out there. The maximum depth of plant growth was 10-ft compared to 9-ft in 2011. 325 points out the total 493 points were in water 10-ft or less during the 2020 survey, but plants were only present at 231 of those points. There were more species of aquatic plants identified in 2020 (52) than there were in 2011 (39).

**Table 1: 2020 Summer Point-intercept Survey of Aquatic Plants in Trego Lake (preliminary data)**

| <b>SUMMARY STATS: July 27-28, 2020</b>                                  |       |
|---|-------|
| Total number of sites visited   | 493   |
| Total number of sites with vegetation                                   | 231   |
| Total number of sites shallower than maximum depth of plants            | 325   |
| Frequency of occurrence at sites shallower than maximum depth of plants | 71.08 |
| Simpson Diversity Index   | 0.92  |
| Maximum depth of plants (ft)**  | 10.00 |
| Number of sites sampled using rake on Rope (R)                          | 0     |
| Number of sites sampled using rake on Pole (P)                          | 0     |
| Average number of all species per site (shallower than max depth)       | 1.98  |
| Average number of all species per site (veg. sites only)                | 2.79  |
| Average number of native species per site (shallower than max depth)    | 1.94  |
| Average number of native species per site (veg. sites only)             | 2.75  |
| Species Richness  | 42    |
| Species Richness (including visuals)                                    | 47    |
| Species Richness (including visuals and boat survey)                    | 52    |
| Mean depth of plants (ft)   | 3.23  |
| Median depth of plants (ft)   | 3.00  |
| Mean rake fullness (veg. sites only)                                    | 2.05  |

### Most Abundant Plant Species

The four most abundant plants in the 2020 survey were water celery, coontail, flat-stem pondweed, and wild rice. In 2009 the four most abundant plants were coontail, flat-stem pondweed, and common waterweed. There was no EWM in the system in 2011, There was a lot of CLP though.



**Figure 2: *Valisneria americana* (water celery) Present at 100/231 sites with vegetation**



**Figure 3: *Ceratophyllum demersum* (Coontail) Present at 75/231 sites with vegetation**



**Figure 4: *Potamogeton zosteriformis* (Flat-stem pondweed) Present at 67/231 sites with vegetation**



**Figure 5: *Zizania palustris* (Northern wild rice) Present at 59/231 sites with vegetation**

Wild rice was documented at 59 out 231 points with aquatic vegetation. Rice that was seen at a point, but not on the rake accounted for another 26 points, for a total of 85 points with wild rice or 36.9% of all of the sites with aquatic vegetation.



**Figure 6: Wild Rice in Trego Lake (Photo by Matt Berg)**

### **Eurasian Watermilfoil**

During the 2020 summer survey, EWM was located at 11 out 231 points with vegetation. This equates to 2.2% of the lake's surface and 4.8% of the area of the lake with aquatic plant growth. Only two of the eleven points were considered moderate growth, with none being classified as dense.





**Figure 7: Eurasian watermilfoil (not from Trego Lake)**

### **Clean Boats, Clean Waters**

Aria Tseffos, 15, was hired by LEAPS in early July and started working at the landing at the end of Trego Lake Landing Road on July 9, 2020. Since that time she has put in 100 hours (through August 13<sup>th</sup>). She is still working the landing, but only on weekends, and probably only into early September before she has to go back to Arizona.

### **Next Project Activities**

2020 is the first year of two in the Early Detection and Rapid Response grant-funded project. In 2020, the biggest task to complete was the early season and summer season aquatic plant, point-intercept survey. Matt Berg, of Endangered Resource Services was contracted to complete this survey work. The field portion of the survey work has been completed, but the final analysis including maps and final report will not be completed until late 2020 or early 2021. The bulk of the work LEAPS is to do begins once the aquatic plant survey work has been completed. Updating the management plan will begin in earnest in early 2021.

**Respectfully Submitted by Dave Blumer, LEAPS**