Summary Report to the CLPO Board

Starry Stonewort Summit

Held April 22, 2017

Attending: Mark Bertelsen and Jim Kutzner

The summit was well attended, perhaps 200+ from a number of lakes in the area. Much of what was presented was a summary of previous reports but there was some new information.

Kevin Farnum gave a short summary of the activities at Koronis. So far, they've pulled about 250,000 lbs. from 3.8 A of Koronis.

There was also a short report on Sylvia where they resampled the same intercept points as last year. They found bulbis in the sediment, and they found SS in every spot where it was last year, meaning they knocked it down but achieved stasis in the spread. The Sylvia team is experimenting with various combinations of harvesting and treatments and comparing the results against a reference location where no work was done. One point that was stressed here and by the other speakers was that addressing AIS is a management effort, not an eradication effort, the public may think/hope it's the latter, and clarifying this needs to be part of an education effort.

Heidi Wolf of the MN DNR spoke and discussed the approaches in the various lakes. So far there are seven lakes where SS has been confirmed (Winnibigoshish, Moose, Upper Red Lake, Rice, Turtle, Koronis, Sylvia). In all cases the approach is and will be a combination of chemicals and harvesting. While the chemicals can treat the plants in the water the bulbis can settle in the sediment and will not be affected and therefore must be mechanically removed.

The featured speaker was Dr. John Rodgers of Clemson who has been working on AIS of many kinds (not just water-borne) for decades.

- He noted that the earliest sighting of SS was in 1978 in the St. Lawrence River. SS can survive in fresh or brackish waters. It has spread from state to state but curiously while it has been found in NY, PA, and IN, it has not (yet) been found in OH (IL was not mentioned).
- It doesn't grow above about 30°C (86°F), meaning SS prefers temperate climates.
- SS is rather benign in its native regions where it has a predation environment and systemic processes to naturally control it.
- The previous largest biomass density of SS was recorded at 259 g/m^2, but as reported by Kevin Farnum the biomass pulled out of Koronis was over 2000 g/m^2, or an order of magnitude denser. This means that the conditions at Koronis were/are ideal for SS, a perfect storm.
- Rodgers noted that in an AIS infested lake it will typically take 8-10 years for the fish population to collapse, and he added followed by a collapse of property values.

- He discussed algaecides, differentiating them from herbicides. They (Clemson researchers) have research many of the various chemicals that could be brought to bear, including both the positive direct effects and the negative side effects on other species. The challenge will be to find the right combination.
- He suggested that an effective algaecide might include peroxide, Endothall, and copper sulfates.
- He also stressed that every lake will be different and that effective treatments will have to be tailored on a lake by lake basis.
- There will be different approaches even on the depth. (Farnum added that in over four feet of water they had to change their harvesting approach.)
- He noted that because there are only male plants in North America there is no sexual reproduction, and therefore a genetic approach to a solution is not possible.
- He humorously compared the male SS plants as having suddenly been thrust into a huge man-cave known as North America and now they're just going wild because they have no check and balance.
- His summary was
    - to have a plan in place
    - to be flexible and through careful monitoring let the algae tell us when to treat, which will not necessarily follow a pre-planned calendar event
    - keep up the pressure, followup and adjust the plan and timetables as needed
    - once an AIS is in a lake it will be a management effort, not an eradication effort.