



Hubbard County Cola Update FALL 2007

From the President

Ken Grob

Wow!! The summer is just about over. Watching a beautiful sunset last night with my grandchildren by a camp fire, I realized how much the sun has changed angle and how early it is going out of sight... just as beautiful but much earlier.

I just returned from a driving-trip vacation that included camping near Bayfield, WI, crossing the UP of Michigan and Canada, camping on a beautiful lake in the Adirondacks in upstate New York, and cycling in New Hampshire and in Pennsylvania. We won't discuss the traffic in Chicago!!

It is incredible to see how beautiful this country is. I must say that a lot of the area we crossed is even more picturesque than Northern Minnesota, but we have one fantastic unique resource.... our beautiful and plentiful lakes.

A treasure we must preserve. I saw a "Stop Aquatic Hitchhikers" billboard on I90 in Wisconsin and literature in almost every state about Exotics Species concerns. On one cycling ride along the Connecticut River in central New Hampshire, we stopped to walk a path to the river. Guess what I saw?? A sign warning about slimy moss (an invasive species) that had invaded some trout streams. The sign encouraged fishermen to clean their equipment to prevent the spread.

Hubbard County is not alone in its fight to prevent the spread of Aquatic Invasive Species (AIS)... but our lakes define the economics and uniqueness of our area, so it is crucial that we protect them. My Summer 2007 Newsletter message outlined the COLA initiative on AIS. The signage project has very successful. Four billboards and 37 roadside signs have been distributed (placed on roads, posted at businesses, placed at resorts, and installed at launch sites). Our fund raising was sufficient to cover the cost. I have also had the opportunity to present our program to several lake associations, the Hubbard County Township Association, and the Progress Park Rapids Group. All in the interest of creating awareness and education.

"The COLA Call" column that Ed Mutsch writes for the Enterprise has also promoted awareness on AIS. All this is a good start. There is a lot more to do, especially in the area of launch inspections, washing stations, and enforcement. Plenty of work for the AIS Task Force over the winter.

Over the summer: The COLA Board has adjusted the standing-committee structure and held committee meetings; COLA participated in the North Central Lakes Region Summit (a working session with participants from six counties) sponsored by Minnesota Waters; and the HLRP project has resulted in all the lakes in the 2005 Class applying for special grants and the 2004 Class being given the opportunity to apply for some additional special grants. A special



thanks to the Northwest Minnesota Foundation for providing extra time and funding. The grants will be used for vegetation mapping of lakes, shoreline restoration projects, AIS education, etc.



Now for reflection: The volume of work that COLA has added to its "plate" over the past two years is substantial. Many individuals have stepped up to take leadership roles, but we are at a crossroads. In order to make progress, the "bench strength/capacity" of our COLA Board needs to be improved. Several lake association reps do not regularly attend meetings or participate in committee work. They are the key to COLA's success and to communication with their lake association. As I look forward to this next year, I intend to place a lot of effort on making our standing committees more functional with proactive leaders, and to encourage lake associations to appoint reps that will actively participate in COLA work. It is not my intent to offend anyone by this assessment, but to create awareness that for COLA to make a difference the capacity must be increased.

Remember---We need to take care of our lakes, not just care about them.

Have a great winter wherever you plan to spend it. Thanks for your support of the COLA mission.

MAPPING AQUATIC PLANTS IN LITTLE SAND LAKE

Dan Kittilson

Little Sand Lake Association was a participant in the 2004 class of the Healthy Lakes & Rivers Partnership sponsored by the Initiative Foundation. We conducted our visioning session on May 1, 2004 and completed our Lake Management Plan in 2005.

One of our main focus areas was aquatic vegetation & invasive species. As our lake management plan evolved, we developed a plan using association volunteers to conduct aquatic plant mapping on Little Sand Lake to determine a more in-depth analysis of Little Sand Lake's ecosystem. Identifying, inventorying & monitoring aquatic plants can help establish important baseline information about critical shoreline habitat and lake water quality.

At the initial stages of our plan, several Little Sand Lake residents attended an Aquatic Plant Identification workshop sponsored by University of Minnesota Extension. These local aquatic plant gurus included Vern Thompson, Jim Thomsen & Dan Kittilson. Little Sand is the first lake in the area to be mapped by volunteers, and the DNR hopes to extend the project to other area lakes. For this project we worked closely with the DNR Fisheries Division in Park Rapids.

Mapping of Emergent Aquatic Vegetation Little Sand Lake Summary September, 2005



The first phase of the project concentrated on mapping emergent vegetation using GPS and detailed note-taking. Consequently, three old codgers (Vern Thompson, Jim Thomsen & Dan Kittilson) were spotted circling the bulrushes and lily pads during early September of 2005. Our partnership with the DNR provided the necessary technical assistance to utilize GPS/GIS technology to create accurate maps of the location & distribution (size) of emergent aquatic vegetation in Little Sand Lake. With the team's GPS tracking and detailed notes, Edie Evarts of the DNR produced a color-coded map showing the varieties of

emergent vegetation & a detailed summary of the vegetative data in Little Sand Lake. By following DNR mapping guidelines, the information collected can be integrated into the DNR Fisheries GIS database and incorporated into mapping records of Little Sand Lake.

Summary of emergent aquatic vegetation data

Of the 409 acres on Little Sand Lake, 74 acres (18% of lake) are covered by emergent or floating leaf vegetation. Bulrush is the most common emergent plant in Little Sand Lake. 79% of the emergent stand acreage is primarily bulrush. While over half the vegetation is pure bulrush (56%), another 25% of vegetation is mixed bulrush stands, usually mixed with water lilies. Other emergents include waterlily, cattail, floating leaf pondweed or sedges.



Forty percent of emergent and floating leaf vegetation on Little Sand grows in dense stands. Thirty-two percent is in moderately dense stands and the remaining 28% is in sparse stands.

In terms of shoreline, 70% of Little Sand's shoreline is vegetated with high quality vegetation that provides fish spawning areas, cover for young fish and is productive of invertebrates and minnows that feed gamefish. Bulrush, cattail and lilies also dampen wave energy and help protect shorelines from erosion.

Mapping of Submerged Aquatic Vegetation Little Sand Lake Summary August/September, 2006

In August of 2006, those three old codgers (Jim, Vern and Dan) set sail again on Little Sand Lake mapping the submerged vegetation. During the second phase of our aquatic plant mapping project, we conducted the **"Point Intercept Lake Vegetation Survey"**. The survey was conducted on August 28 & 29, and September 3 & 4 and took approximately 16 hours to complete.



The purpose of this survey was to document the submerged vegetation in Little Sand Lake. Our trained volunteers mapped 180 way-points across 149 littoral acres on Little Sand Lake to establish a point-transect map of existing aquatic vegetation. A DNR survey point grid was designed with dense spacing to provide more thorough coverage of the area and to increase the probability of detecting small changes in the plant community.

During this phase we were assisted by the DNR including Eric Thorson, Assistant Wildlife Manager; Ann Geisen, Shallow Lake Specialist (Brainerd); and Edie Evarts, Assistant Fisheries Supervisor, Park Rapids.

Summary of submerged aquatic vegetation data.

The following is a summary of the submerged aquatic vegetation data on Little Sand Lake. Submerged vegetation was found to a depth of 24 feet and was dominated by muskgrass (Chara). Chara is a low growing plant that can form thick carpets across the lake bottom. On Little Sand Lake, Chara was found in 51% of the sample sites between shore and 24 feet. Chara beds offer great cover for insects, minnows and crayfish on shallow to medium depth

structure and can be a preferred feeding area for walleyes, perch and other species of fish.

Other native aquatic submerged plants found in Little Sand Lake included Spiny Naiad (26 %), Northern Milfoil (21%), Large Leaf Pondweed (20%), Flat stem Pondweed (12%), Floating Pondweed (9%), White Waterlily (8.5%), Canada Waterweed (6%), Yellow Waterlily (6%), Bushy Pondweed (5%), Bladderwort (5%), Claspings Pondweed (4.5%), Coontail (4%), Water Stargrass (3.4%), Narrow Leaf Pondweed (2.8%), Stonewort (1%), Sago Pondweed (1%), Variable Pondweed (0.6%) & Horsetail (0.6%).

Monitoring change over time



water milfoil.

Historical vegetation data for Little Sand Lake is sparse, but comparison of the 2005/2006 data with previous surveys indicate that little change has occurred in the varieties of aquatic vegetation. In 1969, chara was recorded as the most abundant submerged species along with bulrush as the main emergent species. In the more recent surveys, chara & bulrush were also found as most abundant. Both the earlier survey (1969) & the recent survey suggests that other common aquatic plants include large-leaf pondweed and northern

Conclusion

In conclusion, the 2005/2006 vegetation surveys give a “snapshot” of the Little Sand Lake conditions. Data collected during these surveys can be compared with future quantitative surveys to better estimate how the plant community may be changing and reflect changes in the overall water quality of Little Sand Lake.

The Little Sand Lake Mapping project has addressed the capacity of grass-root citizens to identify, inventory and monitor aquatic plants. It is not feasible for the DNR to map aquatic plants on all lakes every year. Therefore, volunteers can play a vital role in monitoring the aquatic plant community in a lake. While mapping aquatic plants can be a time-consuming process, it builds a sense of ownership and stewardship among lake residents.

In our project we found no evidence of Eurasian Watermilfoil or Curlyleaf Pondweed. Although, we presently have no indication of aquatic invasive species in Little Sand, we need to be vigilant about monitoring our lake for early detection. It is critical that we take an active role in protecting our lakes from the threat of aquatic invasive species.

Little Sand Lake’s collaboration with the local DNR on our mapping project has helped us develop a constructive partnership & identify common issues. Mapping of both emergent & submerged plants, along with water quality monitoring, will assist with the ongoing task of preserving the water quality of Little Sand Lake for future generations.



Find COLA On The Web

COLA was pleased and grateful to be offered the opportunity to run a regular column in the *Park Rapids Enterprise*. The twice monthly Saturday column, The COLA Call, first appeared on June 9, 2007. For those who may have missed some or all of them as they “rolled off the press”, they can be found on the COLA website at www.mnwaters.org/hubbardcola. This

web destination also has COLA meeting minutes and newsletters, a calendar of events, evocative nature photos, a phenology column, and more; it is a site worth visiting on a regular basis.

Restore the Shore Program

The Hubbard County COLA, in collaboration with the SWCD, is again spearheading the effort to provide seedlings at bargain basement prices to lake association members interested in shoreline restoration projects. Various species of shrub seedlings are available, as are seedlings of a variety of deciduous and coniferous trees. These can be purchased singly or in bundles of 25 at incredibly low prices. Every COLA member lake has a coordinator for this program (likely the lake association's COLA representative) and this person should be contacted for a price list and specific information on available species. Orders must be placed with the lake association program coordinator by 10/1/07. These orders will be consolidated and submitted to Gary Stolzenberg, COLA overall program leader, by 10/9/07. The bare-root seedlings will arrive in late April/early May 2008, then be sorted, bundled, and delivered to the lake association coordinator who will in turn distribute them to the appropriate lakeshore property owners.



Water Quality Monitoring Report

RMB Environmental Laboratories earlier this year published a report on the results of ten years of lake water quality monitoring by 44 Hubbard County lake association members. The report makes for fascinating reading and should be of great interest to all who care about protecting, preserving, and improving the water quality of county lakes. The decade of data points makes clear in a way that a single measurement or even a single summer season of measurements does not, exactly what the quality of these lakes are and how that quality is changing over time. The report ranks the lakes according to their clarity, their phosphorus levels, their chlorophyll-a levels, and their TSI indices (a composite of the first three parameters). Of the 44 lakes, four have shown improving water quality trends over the time period, while twelve have shown declines, in some cases, alarming declines. The full report can be accessed at the testing laboratory's web site, www.rmbel.info, then click on 'Lakes Database' (top right of page), then on 'Publications' (left center of page), then on 'Hubbard County 10-year Water Quality Report'.

Shoreland Management Standards Update



As most readers are aware, the past year has seen COLA make a major investment of time, energy, and money in a multi-faceted effort to educate the public on the threat of aquatic invasive species in the hopes of helping to prevent their (thus far minimal) spread to Hubbard County lakes. As a result of the need to direct the limited number of dedicated volunteers to this high priority effort, other COLA objectives received short shrift, most notably the felt need for an upgrade to the county's shoreland regulations. Ken Grob and three other COLA members met separately during the year with each of the county commissioners as part of an effort to disabuse each of them of any notion they might have that COLA members are a group of rabid and irrational "tree huggers" and to better inform each of them on COLA, its mission and specific program objectives. One of these program objectives is to convince the county commissioners of the need to update the county's shoreland standards,

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regulations that have not had a major upgrade in over 15 years, a period during which the developmental pressures on area lakes have mounted alarmingly.

There is no evidence that a standards upgrade will be initiated any time soon; rather there is considerable evidence that it will not. County department budgets for 2008 will be virtually set in stone by the time this newsletter is distributed, and the amount budgeted for the Environmental Services Office, the principal county regulatory guardian of our water resources, is clearly inadequate to the growing developmental demands being placed on that office. Thus, little ESO personnel time would be available to participate in a shoreland regulations update process even if one were to be initiated. In addition, the Minnesota legislature at the end of the most recent session directed the Minnesota DNR to promulgate by mid-January 2008 a process for upgrading state-wide shoreland management standards. This gives our local officials a regrettable pretext to "wait and see" what happens at the state level, since any state-wide changes would be automatically mandated on each county. If anyone thinks that the DNR Commissioner will risk any sort of "rocking the boat" during an election cycle in which we have a Governor who is being bandied about as potential Vice Presidential timber, that person must be smoking something.