

A STUDY OF THE FISH POPULATIONS OF RUNYAN LAKE

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**SYNOPSIS OF PRESENTATION AND DIALOG WITH
STEVE HENSLER, FRESHWATER PHYSICIANS
AT RUNYAN LAKE INC. FALL 2009 GENERAL MEMBERSHIP MEETING
AUGUST 29, 2008.
(Extract from Runyan Lake Inc. Minutes of Meeting)**

3. **Fish Study, by Dr. David Jude, Freshwater Physicians** – A presentation overview of the study was given by Steve Hensler, in the absence of Dr. Jude. Steve showed pictures Dr. Jude had supplied of the fish population at Runyan Lake, giving us a close up look at the various types of fish we have, or should have at Runyan Lake. Points from the fish study included:
 - 3.1. Dissolved oxygen level of the lake is very good.
 - 3.2. Stratification was explained and Runyan Lake had good results.
 - 3.3. Aeration and temperature of the lake shows good habitat for Lake Herring, but none were found, which could be due to other fish, such as Walleye, predated them.
 - 3.4. Seines, gill nets and traps were used May 31, June 1 and June 28, 2008. No Lake Herring and no Yellow Perch were caught, suggesting a depressed population. Walleyes could be causing the decrease in population. Walleye were stocked in 1999 and 2004 and are at or above state average growth rates. Walleye are unlikely to reproduce in Runyan Lake conditions. The Northern Pike here are below the state average growth rate, possibly due to food competition with the Walleye, and we have a lot of Blue Gills and Pumpkinseeds. There were also a lot of Iowa Darters.
 - 3.5. In 1979 tests showed 17 species in Runyan Lake, 1995 showed 18, and 2008 showed 13. This suggests decreases in populations of several species. This could be due to Zebra Mussels too, which we did not have in the earlier tests. One Zebra Mussel filters one liter of water per day, depriving a lot of food from the smaller, developing fish.
 - 3.6. Catch and release is recommended, to encourage population growth, and due to possible mercury levels, common throughout Michigan, not any higher in Runyan Lake than elsewhere.
 - 3.7. Recommended that we not stock Walleye, Northern Pike or Large Mouth Bass.
 - 3.8. Recommended another search for Lake Herring in late August to mid September, 2008.
 - 3.9. Recommended preserving / protecting shoreline areas such that rocky areas and sloping beach areas remain for fish spawning. Pike reproduce in shallow water with weeds during winter..
 - 3.10. Questions:
 - 3.10.1. When we should test again? Agreed 3-5 years might be a good time, we will discuss during the Spring 2009 General Membership Meeting.
 - 3.10.2. Does boat traffic affect the fish? No, if anything it aerates the water.
 - 3.10.3. Should we plant Yellow Perch? No, we have good habitat, issue is too many predators. Yellow Perch have great reproductive capability. Walleye will be gone in approx. 15 years if they are not re-stocked, further helping the situation.
 - 3.10.4. Does Weed Control affect fish population? When weeds decompose it can cause localized low oxygen, but Runyan Lake shows no problem. Noted that weed treatment has been applied on Runyan Lake consistently since the early 1970's.
 - 3.10.5. Is weed harvesting (cutting) recommended? Better to continue chemical treatment.
 - 3.10.6. Are Lilly Pads good for fish habitat? Yes. Some types are protected.
 - 3.11. The meeting agreed to review next actions at the Spring 2009 General Membership Meeting.
 - 3.12. Steve was thanked for his presentation and left at 7:40 PM.
 - 3.13. The full Fish Study documents will be posted on the web site and noted in the next newsletter.