

SICON, LLC Update  
July 1, 2015

Dear HLPOA Members and Supporters,

As SICON enters the last month of its intensive work on Higgins Lake, we would like to update you on its progress. SICON's days and evenings have been filled with activities centered around control. SICON also has added important research and education elements dealing with swimmer's itch. Based on SICON's decades of experience, locating and removing merganser nests is the sustainable way to control swimmer's itch on Higgins Lake. Without nesting sites, mergansers will move to other lakes. If a female merganser is killed, another female can use the nest. By observing the mergansers' natural flight patterns in the early spring, SICON can locate and remove merganser nests. SICON has been unable to conduct their nest locating program this year, so its main focus has been and continues to be removing numerous merganser broods from the lake (to date, SICON has removed 8 merganser broods totaling 79 mergansers since May 22 when the Northpoint Fisheries lethal and harassment program ended after shooting 23 mergansers).

Common Merganser Removal Statistics:

Parasites released by certain species of snails cause swimmer's itch. On Higgins Lake, these itch-causing worms live part of their life in a common merganser duck and the other part in two species of snail. Unfortunately, SICON has found those two snail species are the most prevalent ones on the lake, so removing all the snails would be impossible. By reducing the number of "merganser hours" (every hour a merganser spends on the lake), however, SICON can reduce the number of snails that get infected because the ducks pass the parasite to snails through their feces. Since the larva (cercaria) from the snail infects humans, fewer infected snails mean less swimmer's itch.

To date, SICON has trapped and relocated 79 common mergansers representing 8 broods. Over the past 30 years SICON has learned that young mergansers in a brood, if left on a lake, become most heavily infected (10x that of an adult) so removing them is paramount to an effective control program. Northpoint Fisheries was required to turn over the mergansers they shot to SICON for analysis as part of its permit to shoot the mergansers. For comparison, of the 23 mergansers shot this spring by Northpoint Fisheries, only 9 were found to be infected and all of those had light infection levels. SICON found 6 crippled mergansers on the lake when it began its work on the lake after May 22. SICON used 5 of its 20 lethal permits to lethally take the 5 crippled common mergansers. The 6th crippled merganser is a red breasted merganser and SICON cannot take or relocate it with its permit. Since it has been on the lake for some time without the ability to fly it likely is heavily infected. SICON has contacted the DNR requesting that it be removed. SICON is waiting for a response.

Assessment Efforts:

A reduction in the number of infected snails on Higgins Lake will ultimately reduce swimmer's itch cases. Snail infection rates are one important metric used for determining the effectiveness of various aspects of any control program. To date, over 8,000 snails from 10 different locations around the lake have been collected and analyzed by SICON. SICON has found an average infection rate of 2.06%, which is typical of a lake burdened with the parasite. There were several areas that had infection rates between 7-8% on a single collection, a rate higher than SICON has ever seen!

#### Waterfowl Monitoring:

On SICON's most recent 6.5 hour intensive bird survey of the entire lake (conducted June 30, 2015), SICON observed 19 adult common mergansers, 4 red-breasted mergansers, 295 mallards (30 broods and 102 single birds), 33 Canada geese, and 1 common loon. There were no additional common merganser broods observed at that time. Until the entire complex picture is developed, SICON will continue to monitor all waterfowl numbers. Once young birds of all species are old enough to begin passing the parasite, SICON will check their feces to determine if they play any role in the swimmer's itch problem on Higgins Lake. SICON believes it is essential to do this second check to confirm its tentative conclusion that the common merganser is the sole source of SI on Higgins Lake (SICON originally discovered the link between common mergansers and swimmer's itch.)

#### Research Efforts:

While removal of common mergansers currently is SICON's primary focus to control swimmer's itch on Higgins Lake, SICON believes there is benefit to working on other key parts of the SI cycle, snails and the parasites. SICON is partnering with scientists from Oakland University to study larvae (cercariae) levels in the water in and outside of a plot where all snails have been removed. A common question SICON hears at its weekly open houses is, "Will we get less swimmer's itch at our cottage if we remove the snails?" We hope to help answer that question as well as determine how quickly snails repopulate an area after removal efforts are complete.

In addition, students from the University of Michigan Biological Station on Douglas Lake, under the tutelage of Dr. Curt Blankespoor (SICON), are also conducting studies dealing with the swimmer's itch parasite on Higgins Lake this summer.. Those studies are just beginning and will continue well into August. SICON will provide more information in our next update.

SICON also is continuing its 4-lake, 3-year study (Higgins, Glen, Lime, and Douglas) under its state and federal permits to determine the effectiveness of a spring harassment program, as well as SICON's brood removal program. Those efforts on the other lakes will be separately funded by those lakes.

#### Education:

Nearly 50 interested residents have had their questions answered at one of SICON's weekly Monday evening open houses. SICON will continue these open

houses every Monday from 6-8 p.m. at The Dragonfly House (the lab at 104 Webster) through the end of July. All are invited to attend to learn more about the swimmer's itch parasite and get new updates on SICON's progress. SICON also held a Saturday morning session from 9-11 a.m. at the Lyon Township Hall on Saturday, June 20 where SICON discussed its work and answered many questions. Another town hall meeting is scheduled for Saturday, July 11 at the same time and location.

SICON has also made special presentations to several individual lake associations and other local organizations and would be happy to attend a meeting in your area if its schedule permits. Please contact Jim Vondale or Ken Dennings if interested.

#### Riparian Help:

Twenty five (25) people have reported seeing mergansers broods, which has been very helpful as SICON attempts to locate and trap them. Thirty three (33) people have reported cases of swimmer's itch to SICON. Please continue to report merganser brood sightings and swimmer's itch cases on SICON's website ([swimmersitch.org/higginslake](http://swimmersitch.org/higginslake)) and encourage your friends and neighbors to do the same!

Hundreds have contributed, but we continue to need your support. Please send your checks to Higgins Lake Swimmer's Itch Organization. PO Drawer 665. Grayling, Michigan. 49738. Your contribution is tax deductible.

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