

Dear HLPOA Members and other HLSIO Supporters

June 22, 2015

Here is an update on our progress this summer to address the swimmer's itch problem on Higgins Lake.

Merganser trap and relocation:

Surveillance by SICON of adult mergansers on Higgins Lake over the past month has identified approximately 20 adult mergansers remaining on the lake subsequent to the Northpoint Fisheries lethal shooting program that ended on May 22. In addition, consistent with SICON's state and federal permits, four merganser broods totaling 49 mergansers have been trapped and relocated by SICON since the first brood came on the lake earlier this month. Young mergansers are highly infected with the SI-causing parasite because their immune systems are immature so their prompt removal from HL is key to the reduction in infected snails and a resulting future reduction of SI on HL. We do not know how many additional merganser broods will appear on HL in June and July, but based on SICON surveillance of adult mergansers on HL over the past two months, more broods are expected. SICON had to use 5 of their 20 lethal permit merganser takes on June 11 to remove 5 injured mergansers that had been on HL for some time and were unable to fly. Subsequent analysis by SICON showed these 5 mergansers were mildly to heavily infected with the swimmer's itch parasite and would have significantly contributed to snail infection rates on the lake because of their inability to fly. SICON will use the remainder of their common merganser lethal permits (15) for 2015 consistent with their removal and scientific work.

Snail collection, identification and analysis:

The early part of the SICON snail work involves collection of thousands of snails to determine which snail species on HL are infected with the swimmer's itch-causing parasite, the rate of snail infection and matching the infected snail hosts with infected bird species. So far, SICON has collected over 6000 snails for analysis from various parts of the lake. Based on their over 80 years of combined expertise in studying swimmer's itch, their preliminary conclusion continues to be that there are two species of infected snails that act as hosts for the common merganser on Higgins Lake. Thus, removal of common mergansers from Higgins Lake is the key to significantly reducing the incidence of SI on the lake. SICON has identified 10 areas on HL where they will continue to remove and analyze thousands of snails to further confirm their preliminary findings. Beginning next week SICON will initiate their snail "hotspot" removal project at site(s) chosen for strategic scientific reasons. Remember, snails found in HL this year were infected by mergansers last year and these snails live for approximately a year. Unless they are manually removed, infected snails born last year will produce SI causing parasites until they die later this summer. Our goal is to significantly reduce the infection rate of new snails born in this and future years.

Work with Oakland University scientists

SICON is teaming up with Graduate Assistant Maddie Messner and Assistant Professor Tom Raffel, a parasitologist, to determine if the number of swimmer's itch causing cercariae can be accurately quantified from water samples. They will be collecting samples in the "hotspot" snail removal areas and comparing these samples to areas immediately adjacent to the hotspots. We'll continue to update on this collaborative work.

Summary of June 16 Swimmer's Itch Task Force meeting:

SICON presented their preliminary findings at the June 16 SI Task Force meeting which included much of the information contained above. SICON's extensive SI knowledge and experience was helpful in clarifying some information presented by Northpoint Fisheries consultants at the meeting,

illustrating Northpoint Fisheries inexperience with the science of swimmer's itch. Northpoint Fisheries presented videos of cercariae (which are also currently found on the Gerrish township swimmer's itch webpage) and implied that they have developed techniques that can be used to quantify the levels of swimmer's itch infection in snails. SICON pointed out that the images of cercariae that Northpoint Fisheries was showing in the video and counting were NOT of a species of parasite that even causes swimmer's itch.

HLSIO/SICON Educational meetings:

SICON's experienced biologists began their weekly two hour educational presentations on Monday, June 14 at 6pm. Those in attendance included Thomas Reznich from the Resorter. These educational programs will be held each Monday evening from 6 to 8 pm until the end of July. The location is The Dragonfly Cottage, 104 Webster (at the foot of West Pine Dr). Please plan on attending. The SICON biologists showed the participating HL community members the 4 different species of snails that they found on HL, taught participants how to distinguish the "good" snails from the "bad" ones, and had a heavily infected snail under a microscope so that everyone could see the thousands of swimmer's itch causing cercariae that can come out of a single snail. SICON also has a large map of Higgins Lake posted on a wall with colored stickers showing: 1) where swimmer's itch cases have been reported, 2) where SICON's 10 snail collection sites are located, and 3) where (and how many) broods they have trapped to date.

SICON and HLPOA representatives conducted their first Saturday educational/informational meeting for the HL Community at the Lyon Township Hall on Saturday, June 20. The next Saturday meeting is scheduled for July 11 from 9 to 11 at the Lyon Township Hall.

The HLSIO website reporting system is working well, so continue to report common merganser sightings, cases of SI and nests to www.swimmer'sitch.org/higginslake. These reports go directly to SICON personnel who will act on and track your reports.

SICON personnel will continue to work on HL until July 31. The cost of the science-based HLSIO Comprehensive Program to fund SICON is \$225,000 for 2015. If you believe SI is a problem on HL and want action, we still need your support. Please send your check to:

Higgins Lake Swimmer's Itch Organization
2373 I-75 Business Loop
Grayling, Michigan 49738

Your contribution is tax deductible as HLSIO is a 501(c)(3) organization. You will receive an acknowledgement of your contribution for your tax records.

Thanks for your support!

HLSIO Board