

June 14, 2024

Dear APCC,

I am not an official herring count volunteer but I wanted to submit my observations on Slough Pond, which is not a designated counting area, as they might be of some interest or value for you. Last year and this year I have collected data on my citizen science website, **pondlore.com**, in an effort to protect the herring migration passageway from Walker's Pond into Slough Pond, which the Town of Brewster was and is considering closing off.

The stream is on private property and I have permission from the owners to traverse their land. My data is collected under the full knowledge of the Town, the Town Manager and Select Board, Alewife Committee, Natural Resources Department, and Natural Resources Advisory Commission, with whom I share my information.

My observations have focused on a broader perspective than a typical herring counter would in that I document the state of the passage over the course of the year, the general attributes of the surrounding habitat, the number of immigrating herring, the juveniles development in the pond nursery, and their emigration in the fall, with photographs, videos, and daily journal entries. My website also serves as a reference library for information I have gathered on herring, herring management, ecosystems, etc., with links to relevant science, articles, and research.

My goal is to help raise public awareness of the significant contribution of the herring migration to the vibrant biodiversity of Slough Pond. It is my contention that any decisions to alter this habitat's balance, through the removal of this keystone species, should only be made after alternative methods have been explored and studies conducted by knowledgeable professionals in the field.

Here are my greatly condensed migratory observations for 2024, last year's are available on my website:

- April 24: 11am- noon / 15 pm – 16pm/ first arrivals, 50 herring each hour water & air temp. 52°/11.1°C/ weather code 1/ pond gauge @ 8.5"
- April 25: same data as above, but 100's of herring each hour
- May 1-9: same data as above, but many more 100's of herring, water temp increased to 54°/ 12.2°C/ generally weather code 1-3/ occasional light rain, pond gauge decreases to 5", then 4"
- May 10-12: same data as above, but as shallow areas increase in channel, herring spawn in stream, only a few go into Slough

- May 17-19: same data as above, 100's of herring, water temperature at 62° F/ 16.6°C/ air temp fluctuates/ gauge @ 3.25", good rainfall and removal of sandbag weir, 100's go into Slough
- May 20: same data as above, shallows reduce movement in stream and 100's of herring stay at culvert pools resting, feeding, with some spawning
- May 22: first fry observed in Slough Pond
- May 26: same data as above, 100's of herring still arriving but staying in culvert pools, gauge is at 3"
- June 1-15: no herring, gauge from 3.5" down to 2" with little rainfall

#### General Conclusions:

The Walker's to Slough Pond passage is approximately 900 feet long. It is approximately 2.25 miles from the Stony Brook fish ladder. The passage has been in use as a migration route for river herring for at least 75 years, possibly 175 years, however, without a permanent weir, it cannot be called a "fish way" according to the DMF, with all the attendant protections that designation affords.

As a counting measurement, clearly an imprecise methodology, I assume 10 herring every 3 feet along the entire passage during each heavy migration day, as I have observed them. There were 14 strong migration days. That would mean 3,000 fish each day, or 42,000 herring over the 14 strong migration days. There were six additional migratory days with fewer fish, perhaps a third, say 1,000 fish for 6 days, or 6,000 fish. The total then amounts to approximately 48,000 herring at least utilizing the passageway in the 2024 season with hundreds migrating into Slough Pond.

The number seems extraordinary but there was a significant population increase in the run this year with potentially one third of the herring counted electronically at the fish ladder making their way to Slough Pond.

In conclusion, due to improved maintenance of the passage over the past year, in response to the interest and oversight of many individuals, there was a marked increase in the number of migrants either returning to their natal pond or seeking to increase the chances of their young's survival by expanding their habitats. It is essential to note that Slough Pond is considered to be an extremely healthy pond, the healthiest among the seven comprising the Stony Brook Watershed.

Sincerely,

Janice Riley