

FishPass Monthly Update



Dear partners:

On behalf of the FishPass team, I am pleased to provide an update from November 2024. Please distribute the update as you see fit.

NOTE: A time-lapse camera is capturing live footage of FishPass construction—check it out [here](#).

Construction:

- The downstream portion of the sheet pile cofferdam, which permits work on the new dam to be safely completed in a dry working environment, was completed (**Figure 1**). The area inside the upstream cofferdam has been dewatered and excavation of sediment and silt is underway. Vibration and settlement on the existing dam and nearby properties are continuously monitored and no thresholds have been exceeded. In the coming month, the area inside the downstream portion of the cofferdam will be dewatered and there will be continued excavation of sediments inside the upstream cofferdam.



Figure 1. Image captured from the FishPass time-lapse camera: November 25, 2024 – 12:00 PM showing the completed installation of the sheet pile cofferdam upstream (right side of image) and downstream of the dam (left side of image).

Research:

- Sethu Jagadeesan, Jonathon Gregory, Jordan Leh, and Dr. Jesse Eickholt (Central Michigan University) and Dr. Daniel Zielinski (GLFC) published a research article in the journal BMC Research Notes entitled “Labeled images of emerged salmonids in a riverine environment”. The paper introduces dataset of over 2300 annotated images of leaping salmonids collected in a natural riverine environment. These data enable the development of machine learned models to detect unintended passage of salmonids over in-stream barriers. Such models are

key to fully characterizing the effectiveness of selective passage systems, as they detect and quantify fish passage which occurs outside of the intended transit passage and selection mechanism. These data were used to construct custom surveillance tools for FishPass. The article is freely available [here](#).

- Staff from the U.S. Geological Survey (USGS) continued sampling efforts in support of a supplemental research project entitled- *Spatio-temporal drift patterns of larval fish in the Boardman/Ottaway River*. The sample collections involved deploying 500- μ m mesh D-frame for non-consecutive sample events during day and night weekly at six sites, egg mats at five locations, and a 1600- μ m mesh D-frame nets at one additional site (**Figure 2**). The goal of the study is to address the current knowledge gap on the composition and timing of downstream fish embryo and larval drift in the Boardman/Ottaway River.
- 07 November – GLFC and GTB staff completed the four and last scheduled 2024 “quarterly” index electrofishing survey in the lower Boardman/Ottaway River (below Union St. Dam). These surveys are conducted to understand the seasonal diversity and abundance of fishes in the lowermost section of river (**Table 1**).

Table 1. Average length and number of fish (n) sampled during electrofishing in the lower Boardman/Ottaway River on 07 November 2024.

Species	n	Ave. Length (in.)
Chinook salmon	1	21.9*
brown trout	8	15.4
coho salmon	2	24.9
common white sucker	1	4.3*
rainbow trout	84	19.6
smallmouth bass	6	8.8

* Denotes a sample size of one.

Outreach:

- 05 November – Dan Zielinski provided an update on FishPass construction to the Boardman/Ottaway River Network (BORN).
- 07 November – GLFC staff met with state legislators and presented a talk titled “Diving into FishPass” to the Natural Resources Commission in Lansing, MI.
- 26 November – FishPass partners provided a project tour for a delegation from Algeria that is focused on sustainable tourism through Global Ties Kalamazoo.



Figure 2. Staff from the U.S. Geological Survey (USGS) processing an egg mat chain in the Boardman/Ottaway River on 22 November 2024. (1) inspection; (2) disassembled egg mat frame; (3) reassembly of an egg mat; and (4) a single mat prior to deployment. Egg mats are used to sample fertilized and drifting eggs in the river.

Upcoming:

- 10 December – Dan Zielinski will provide an update on FishPass to the Watershed and Stormwater Committee for the Michigan Watershed Environment Association.

In the News:

- 17th Annual Freshwater Summit to discuss Great Lakes challenges, opportunities (9&10 News, 17 October 2024): <https://www.9and10news.com/2024/10/17/17th-annual-freshwater-summit-to-discuss-great-lakes-challenges-opportunities/>



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