



Connecticut River Basin Fishway Passage Counts

5/19/2023



This report is compiled by the U.S. Fish and Wildlife Service, CT River Fish and Wildlife Conservation Office using fishway count data provided by several agencies as well as power companies and is dependent in most cases on the review of video counts, that have an associated time lag for updates. Please visit <http://www.fws.gov/r5csrc> for more information.

Fishway, River - State	Data as of:	American Shad	Alewife	Blueback Herring	Atlantic Salmon	American Eel	Sea Lamprey	Striped Bass	Gizzard Shad	Shortnose Sturgeon	Other/ comment
Rogers Lake-CT	open										
Mary Steube, Mill-CT	5/4		6,658								
Mill Pond, Falls -CT	open										
Moulson Pond, Eightmile-CT	4/26		150				1				
Leesville, Salmon-CT	open										river herring seen
StanChem, Mattabesset-CT	open		hundreds								
Rainbow, Farmington-CT	closed*										
W. Springfield, Westfield-MA	5/14	1,674					1,306				730 white suckers
Holyoke, Connecticut-MA	5/18	196,162		2,153		504	1,898	8	41		
Easthampton, Manhan-MA	open										
**Turners Falls-Gatehouse, Connecticut-MA	5/13	712		0			2				
Vernon, Connecticut-VT	open										
Bellows Falls, Connecticut-VT											
Total to basin, only <u>first</u> barrier counts											
		197,836	6,808	2,153	0	504	3,205	8	41	0	
Last year totals											
		191,651	6,681	370	4	7,845	23,042	314	63	20	

* CTDEEP will not operate the Rainbow Fish Ladder due its documented poor performance and the lack of suitable downstream fish passage protection measures at the Stanley Works owned dam/project. Fish passage at this project has been the responsibility of the CTDEEP, due to FERC legal rulings and timing of that facilities construction.

** *Spillway Fish Ladder - (5/11) at the dam 98 shad, 0 sea lamprey; Cabot Station Ladder (5/10) , base of canal, 194 shad, and 0 sea lamprey. Note that at Turners Falls Project (Dam/Canal) fish must use one of these two fishways first before having the opportunity to pass the final required ladder (Gatehouse).*

A - total collected from 3 eel ramp/traps at Holyoke in 2022

At Holyoke Fish Lift, since last report, daily total American Shad passage counts were 16,731 (5/12); 29,906 (5/13); 50,710 (5/14); 21,601 (5/15); 14,383 (5/16); 10,594 (5/17); and 6,886 (5/18). Both Blueback Herring and Sea Lamprey passage also increased this past week with water temperatures remaining seasonally cool (14-16C or upper 50s to low 60's F) and flows now well below average. Recall in 2022 we only passed 283 bluebacks at HFL, where for the *consecutive years of 1981 to 1992* we were annually passing > **300,000** of this species (in 1985 over 630,000 passed). Our River Herring Assessment continues to measure "modest" catch rates for our ten-year study time series, versus the study's lowest values in 2022.



Aquatic Biomechanics and Kinematics Station (ABiKiS), developed by Ted Castro-Santos (USGS Conte Lab) to test and describe fish swimming abilities, a much understudied area of management importance for fish passage. Two white suckers are shown and monitored by PIT tags and high speed video.

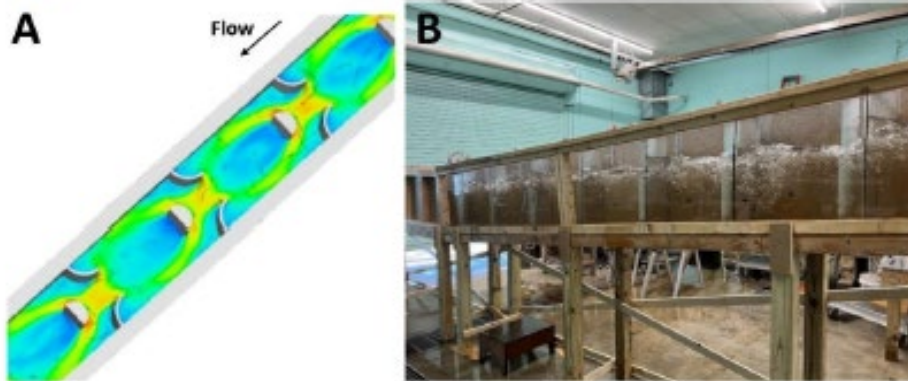
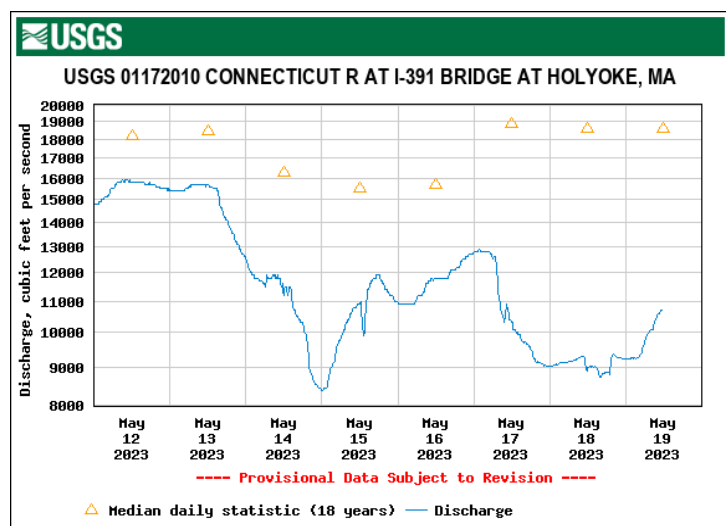


Figure 1. A) Plan view of a mid-section of the D-cylinder ladder with CFD simulated flows. The side baffles are 1/4 pipes that constrict the flow toward the D-cylinder. B) Scale model at the Conte Lab of the D-cylinder ladder.

Scaled model of the "D" cylinder ladder now in full scale operation in the Flume Building at Conte Lab. Fluid dynamics are measured under varied operations in this scaled model.



USGS Conte Lab staff PIT tagging and releasing shad into the facility's Flume Building fish holding areas, for study trials in experimental fishway designs and conditions.



Main stem and tributary discharges are quite low so the pending weekend rain is welcomed. As noted earlier, water temperatures remain seasonally cool.