

CONNECTICUT WEEKLY DIADROMOUS FISH REPORT
 Report Date: July 5, 2016



This is a report generated by the Connecticut Department of Environmental Protection/ Inland Fisheries Division- Diadromous Program. For more information, contact Steve Gephard, 860/447-4316. For more information about fish runs on the Connecticut River call the USFWS Hotline at 413/548-9628 or visit the USFWS website at www.fws.gov/r5crc. For more information about Atlantic salmon, visit the Connecticut River Salmon Association at www.ctriversalmon.org.

CONNECTICUT RIVER LOCATIONS

FISHWAY (RIVER)	ATLANTIC SALMON	AMER. SHAD	ALEWIFE	BLUEBACK HERRING	GIZZARD SHAD	STRIPED BASS	SEA LAMPREY	SEA-RUN TROUT	AMER. EEL
Rainbow* (Farmington)	0	151	0	0	0	0	494	2	0
Leesville (Salmon)	0	-	-	0	-	-	669***	1	0
StanChem* (Mattabeset)	0	36	303	0	87	-	13	3	0
Moulson Pond* (Eightmile)	0	10	83	3,421	0	0	40	0	-
Mary Steube* (Mill Brook)	-	-	406 - FINAL	-	-	-	-	-	-
Rogers Lake+ (Mill Brook)	-	-	0 - FINAL-	-	-	-	-	-	-
West Springfield (Westfield- MA)	2	5,903	0	0	0	0	449	0	1
Holyoke (Connecticut- MA)	3	384,996	0	137	597	619	35,249	SNS=47	19,797
Manhan River* (Manhan- MA)	0	0	0	0	0	0	57	0	0
Turners Falls* (Connecticut- MA)	0	52,766	-	0	0	0	15,092	-	-
Vernon* (Connecticut- VT)	0	34,534	-	0	0	0	5,520	-	1
Bellows Falls* (Connecticut- VT)	0	0	-	0	0	0	6	-	0
Wilder* (Connecticut- VT)	0	-	-	-	-	-	0	-	0
Other (all sites)	1								
TOTALS=	6	391,096	792	3,558	684	619	36,914	6	19,799
(last year's totals)	22	416,355	237	11,822	93	21	24,573	9	20,305

Fishways listed in gray font above are not yet opened for the season. In some cases, the fishways will be opened soon. In the case of the fishways on the Connecticut River, some fishways are not opened until significant numbers of fish pass through the fishway immediately downstream of them. If that never happens, the fishway may not be opened during the season.

*There is a video camera that records passage. There is a considerable lag between the date a tape is recorded and when staff is able to count fish from the tape, so these numbers will not represent up-to-date counts until after the end of spring season.*** Population estimates based on end-of-the-season nest surveys.- +There is an electronic fish counter at this fishway.

NOTE: All fish that pass through the Turners Falls, Vernon, Bellows Falls, and Wilder fishways had to first go through the Holyoke Fishlift where they were counted. Therefore those fish are not included in the totals at the bottom.

COMMENTS:

Not much action in the Connecticut River watershed in Connecticut but we captured an adult salmon on the Salmon River on Friday. You'll find it under "Other" in the table on the previous page. It had been seen below the Leesville Dam and Fishway late in the season but the drought kicked in and I suspect it lost its springtime migratory urge. We found it hanging out at a cold spring downstream in the tidal area and decided to move it. We've done this in past years and taken it to the former Cronin Salmon Station for fall spawning. We have no holding facilities open and we don't spawn salmon anymore but we felt that this fish would not survive the summer at this spring if we left it there. So we netted it, put it in a tank truck, and drove it around the dam and released it in an upstream location on the Salmon River where we know there is good cool water and holding habitat. Hopefully it will move upstream when the fall rains come for spawning time. (See photo below.)

The Leesville Dam Fishway has no facilities to count fish that cannot be retained in the trap. In order to estimate the number of sea lampreys that ascend the Salmon River, we conduct annual lamprey nest surveys for the watershed upstream of the fishway. We walk the entire stream lengths and count nests and plug them into a formula to derive the estimate. Normally we do this with lots of volunteers and colleagues from other agencies and NGOs on one day. However, due to the busyness of our schedule and the need to collect these data while many of us were at the Fish Passage Conference in Amherst, we have been conducting these surveys over a number of days with smaller groups of workers. We recently finished the work on the Salmon River and I have inserted our run size estimate (669) in the table above. This is a higher number than the last two years, which I find surprising. We were not seeing lampreys in Connecticut for the longest time and assumed it was a 'down' year. The same was assumed for the Holyoke Fishlift. But when the lampreys finally started to show up at the fishways, they made up for lost time and went through Holyoke in relatively high numbers. We found more nests in the Salmon River than we expected and some fresh ones with dying lampreys still on the nests. So although it clearly was not a record year for sea lampreys on the Connecticut River, it wasn't a bad year.

The data that I have for the mainstem fishways (Holyoke through Bellows Falls) are probably not the most current. We had the long holiday weekend and many people who contribute data apparently are on vacation and I can't get the latest numbers (although Bob Stira from First Light Power was able to give me numbers for Turners Falls Fishway as we knew them on Friday (but the video review is only up to June 22). Clearly the numbers at Turners Falls, Vernon, and Bellows Falls will continue to rise as reviewers go through the video backlog. This will be my last weekly report of the year so readers who want to learn final numbers will have to consult the USFWS's Connecticut River Coordinator website later in the summer/fall when the reviews are completed. I'm not sure of the status of the West Springfield fishway on the Westfield River—I suspect those numbers are close to final but I don't know if that fishway is still open. Nor do I know if the Manhan River fishway in Easthampton, MA is still operating but I suspect there is still a bit of a video backlog for that site. We also have a video backlog at the Moulson Pond Fishway. I don't expect the numbers to go up a lot more but maybe the lamprey numbers will increase. The fishway is closed. The Holyoke Fishlift will remain in operation. The shortnose sturgeon count continues to rise and can be expected to so all summer long.



The salmon netted from the Salmon River below the Leesville Dam being released somewhere above the Leesville Dam. First row: salmon; Second row (left to right); Steve Gephard, Bruce Williams. Yellow tags alerting anglers that all salmon must be released are affixed to the opposite side of the fish.



Fawn Brook, a tributary of the Salmon River, during the recent sea lamprey nest survey. We walk entire stream lengths enumerating lamprey nests. Fawn Brook is a high quality stream in Hebron and Marlborough that supported many lamprey nests this year.

OTHER LOCATIONS WITHIN CONNECTICUT

FISHWAY (RIVER)	AMER. SHAD	ALEWIFE	BLUEBACK HERRING	GIZZARD SHAD	STRIPED BASS	SEA LAMPREY	SEA-RUN TROUT	AMER. EEL
Greeneville* (Shetucket R., Norwich)	2,669	1,456	115	121	11	0	0	7
Taftville* (Shetucket R., Norwich)	0	33	0	2	0	0	0	0
Occum* (Shetucket R., Norwich)	2	0	0	0	0	0	0	0
Tunnel* (Quinebaug R., Preston)	7	39	0	0	0	0	0	0
Kinneytown* (Naugatuck R., Seymour)	3	5	0	11	0	44	0	1
Hallville Pond* (Poquetanuck Br. Preston)	-	15	0	1	FINAL	trout!	5	2
Trading Cove Brook** (Trading Cove Brook, Montville)				no counts			0	
Jordan Brook ** (Jordan Brook, Waterford)	-	109	FINAL	0	-	0	0	0
Latimers Brook** (Latimers Br., E.Lyme)	-	4,226	FINAL	-	-	-	-	-
Brides Brook** (Brides Brook, E.Lyme)		148,596	FINAL					
Branford Supply Pond Dam** (Queach Br., Branford)		1,514		FINAL-	-	-	-	
Lower Guilford Lake** (East River, Guilford)		4,820	?	FINAL	-	0	0	-
Haakonsen Fishway* (Quinnipiac R., Wallingford)	0	1,246	114	44	0	119	2	2
Hanover Pond Fishway* (Quinnipiac River, Meriden)		10	0	2	-	17	-	1
Bunnells Pond* (Peqonnock R., Bridgeport)	-	4,113	0	16	0	2	1	
Wood Dam** (Saugatuck R., Westport)		1,666	2,951	0	-	FINAL	-	-
Mianus River Pond* ** (Mianus R., Greenwich)		11,940	3,455	0	0	0	FINAL	0

*Fish passage is video-recorded and counts are made off of tapes several days later so these data are always lagged a little behind. This report covers passage up to the following dates for these fishways:

Greeneville= 6/30 Taftville= 5/14 Occum= n.a. Tunnel= 6/7 Kinneytown= 6/29 Haakonsen= 6/15 Hallville= 6/9 Hanover= n.a. Bunnells= 6/20.

**These locations have an electronic fish counter and are used as index sites for river herring runs. The counter is checked daily Monday-Friday. Monday counts typically include all weekend passage. These counts are usually up-to-date but some may lag behind a day or two, occasionally.

+This location has a fish trap and fish are enumerated prior to release.

Counts in parentheses indicate numbers seen in a run that is now over and no further fish were counted during the past week. Typically used for alewife runs later in June.

COMMENTS:

Not much to report from the coastal areas of Connecticut. You can see that most fishways are closed for the season. I'm not sure if Taftville is open or closed but if it is open it will be closed in the next day or two. It has been open to help provide downstream passage for adult shad. Kinneytown Fishway will be closed later this week—just waiting for an opening on our schedules. Unlike the Connecticut River where we have lots of video backlogs, most of the numbers in the table on the previous page are final. Exceptions are Taftville and Tunnel, Occum and Hanover. First Light Power is not too far behind for Tunnel but has farmed out Taftville to Greenfield Community College and they are quite a bit behind on that video. Legendary seasonal employee Kirk McPherson has begun video review for the Occum fishway. This is extremely difficult due to the type of software being used but after reviewing only a few days, he has documented two shad going through—two more than what has so far been recorded at the downstream Taftville fishway. New England Hydro has similar challenges at Hanover Pond Fishway with a clunky review process but that backlog is now being worked on. So far, they have documented the anadromous fish you see on the table plus trout, bass, and white suckers. Many white suckers were tagged and released downstream of the dam as a way to look at fishway efficiency since there aren't enough shad passing through the lower fishway (Harry Haakonsen at Wallingford) to support a shad tagging study. So far, 13 tagged suckers have been seen on video coming up the fishway. See photo below. NEH will break ground on North America's first Archimedes Screw Generator at Hanover Pond later this month.

The tables that we use for this report only report on diadromous species, due lack of space, but many of the fishways pass many other species. For example, the Greenville Fishlift passed 21 different species this year. Fishways on the Naugatuck and Shetucket rivers—where we stock broodstock salmon—pass salmon upstream. This year, Kinneytown (first dam on the Naugatuck) passed 21 salmon, Greenville (first dam on the Shetucket) passed 25, and now we're seeing Occum has passed at least one, which means Taftville has passed at least one. These salmon are not anadromous, having spent most of their lives in a hatchery producing eggs. Once they're in the river, they move around a bit and some wash over dams. As the water gets warm, they want to go back upstream to cooler water and they use the fishways. There is no evidence that they attempt to go to sea. That is why we don't routinely report them as part of the diadromous report.

We are seeing very large numbers of young-of-year alewives congregating at the mouth of Bride Lake, preparing to descend Bride Brook to go to sea. (See photo below, left.) There is a lot we don't understand about the emigration of the young alewife but it appears that it can occur in two pulses. One early pulse, usually toward the end of June, while there is still water flowing down the brook, and another pulse in the fall when fall rains refill the brook and temperatures are cooling. What drives the timing of the emigration is not clear. Research from David Post's lab at Yale suggests the status of the zooplankton population may drive it. Of course, later in the summer, fish cannot physically leave some of these coastal ponds due to lack of flow. But why didn't the rest of them leave with the others in June? Not mature enough? Protecting this very small fish is not as exciting as helping the adults climb fishways and spawn but from an ecological perspective, it is equally as important. You can build lots of fishways and remove lots of dams but if you don't allow for safe, efficient passage for the little ones to get out to sea, all your good work could be for naught. We will continue to monitor dams and fishways throughout the summer and fall to make sure our young-of-year are able to reach the ocean.

Glass eels- Fishing Brook = 6,621 glass eels/280 yellow eels; Mill River Eel Trap= 80 glass eels/354 yellow eels; Greenville Eel Lift= 18 glass eels/595 yellow eels, Lower Millpond (Old Lyme)= 177 glass (no report this week).

My weekly Diadromous Fish Radio show is live on iCRV (www.iCRVradio.com) at 8:00 am on Wednesday and re-played at 3:00 and 7:00 pm that day 8 am on Saturday. This week I'll be doing a wrap up on the 2016 fish migration season. The show may continue for a few more weeks, covering topics we didn't have time for during the runs and tell about the exciting construction projects we have planned for this summer.



A young-of-year alewife from Bride Lake now exiting the system for Long Island Sound. Previous studies have shown that young alewives can tolerate saltwater at very young ages.



CTDEEP Inland Fisheries Division has been working with New England Hydro on an evaluation of the Hanover Pond Fishway on the Quinnipiac River. Numerous white suckers were tagged and released below the dam and the video taken at the top of the fishway has been monitored for the presence of tagged suckers using the fishway. This is a video clip of a tagged sucker passing the camera. A T-tag was inserted between the bones below the dorsal fin and a length of red yarn was tied to the tag to assist with visibility by the camera.