

West Branch Delaware River

Delaware County, New York

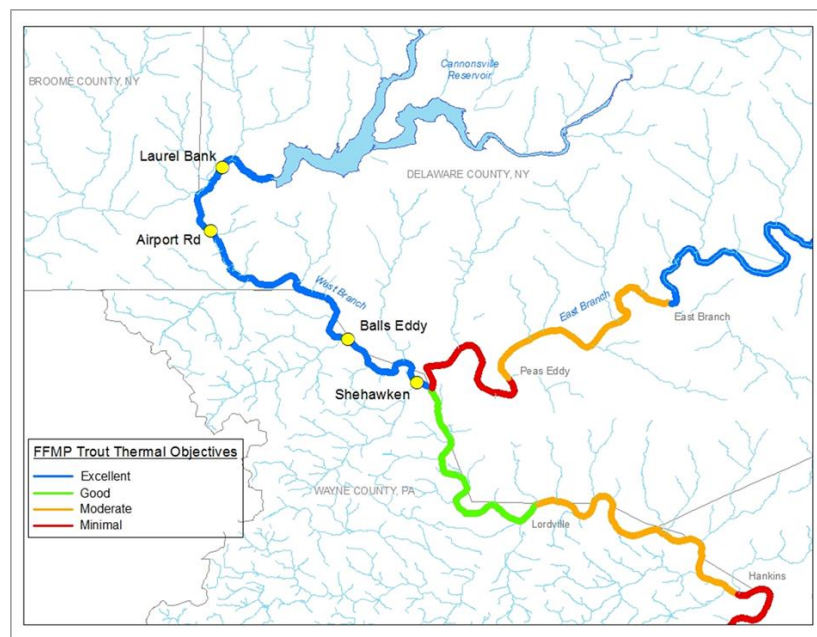
Wayne County, Pennsylvania

2017 Wild Trout Electrofishing Survey

The New York City (NYC) reservoir tailwaters in the upper Delaware River Basin are an increasingly popular destination water for wild trout fishing. The need for present date trout population data has been identified by the Joint Fisheries Investigation Plan for the Delaware tailwaters. The Pennsylvania Fish and Boat Commission (PFBC) and the New York State Department of Environmental Conservation (NYSDEC) have agreed to support joint fishery-independent electrofishing monitoring surveys in the Delaware tailwaters over next three-year term, 2018 – 2020.

In 2017, exploratory electrofishing occurred once a month from June through October in the West Branch Delaware River (West Branch) at four fixed sampling sites (Figure 1). Our primary goal was to identify suitable sampling locations that were favorable to sampling for adult sized trout using nighttime boat electrofishing.

Figure 1. Night-boat electrofishing sites (yellow circles), targeting all sized trout.



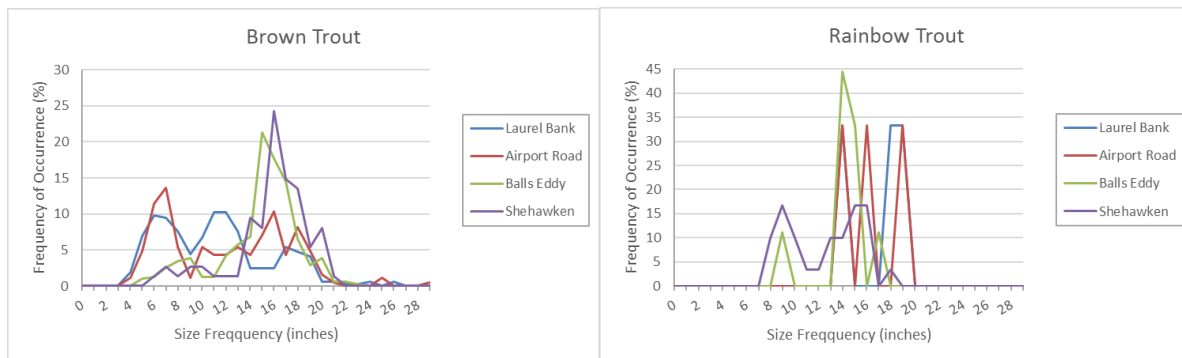
In total, at all four sample sites, there were 883 Brown Trout and 45 Rainbow Trout captured (Table 1). Brown Trout were consistently caught at the two upriver sites (Laurel Bank and Airport Road) when compared to the two downriver sites (Balls Eddy and Shehawken). As expected, higher Brown Trout occurrences was reflective of the relatively stable, cold-water habitat at the upriver sites. The reverse pattern was observed for Rainbow Trout, with Rainbow Trout catches being higher at the downriver most site, the Shehawken Pool. Rainbow Trout prefer faster-flowing pool and riffle habitat which is prevalent in the Shehawken Pool sample location.

Table 1. Total catch of Brown Trout and Rainbow Trout from night-boat electrofishing June – October 2017.

Site	Size	Brown Trout					Rainbow Trout				
		Jun	Jul	Aug	Sep	Oct	Jun	Jul	Aug	Sep	Oct
Laurel Bank	Total		100	55	89	71		0	0	1	2
	≥16"		13	16	17	17		0	0	1	1
	≥20"		2	3	5	0		0	0		0
Airport Rd	Total		100	39		45		1	2		0
	≥16"		33	17		8		1	1		0
	≥20"		2	3		2		0	0		0
Balls Eddy	Total	102	74	78		56	4	2	2		1
	≥16"	47	31	35		34	1	0	0		0
	≥20"	9	2	3		4	0	0	0		0
Shehawken	Total		30	11	5	28		5	8	6	11
	≥16"		23	2	3	22		0	1	2	3
	≥20"		4	0	0	3		0	0	0	0

The trout population was well represented by multiple size classes, typically two – four size classes at each site (Figure 2). The catch composition of yearling and sub-legal (≤ 12 inches) Brown Trout decreased proceeding downriver from 57% at the Laurel Bank site to 12% at the Shehawken site. Large-sized trout (≥ 16 -inches) were present all sites. Brown Trout ≥ 20 inches were a rare occurrence ($< 1\%$) at all sites. The largest Brown Trout was 29.5 inches, which was captured in July at the Airport Road site. Rainbow Trout catches were predominately legal-size (≥ 12 -inches) or larger; however, individuals over 18 inches were rare occurrences ($< 1\%$) at all sites. The largest Rainbow Trout captured was 19.5 inches, also in July at the Airport Road site.

Figure 2. Trout size distribution all months combined by each night-boat electrofishing site.



We are pleased with the findings from the 2017 exploratory sampling and anticipate continuing our efforts in subsequent years under the Joint Fisheries Investigation Plan. Our night-boat electrofishing sampling efforts will be expanded in 2018, with sampling beginning in April and continuing through October. It is anticipated that the additional springtime sampling will provide

a more accurate characterization of the Rainbow Trout population. We are appreciative of the public's interest and thank you for your patience during these monitoring efforts.

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