

Summary of the 2010 Genesee River Angler Diary Program

Scott Cornett and James Zanett

NYSDEC

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From March through October 2010, the Region 9 Fisheries office conducted an angler diary program on the Genesee River. The diary program covered the entire river in Region 9 from the Pennsylvania state line downstream to the Livingston County line in Letchworth State Park. The river is managed as a stocked trout fishery from the PA line downstream to Belmont and this is where almost all of the trips reported by the angler diarists occurred. The river also has a substantial population of smallmouth bass throughout its length. This diary program also attempted to collect information on that part of the fishery. The diary program is a particularly important way DEC obtains information on the quality of the fishery in a river the size of the Genesee. Its large size and deep pools preclude us from being able to adequately sample it with our standard stream electrofishing equipment. Diary programs have also been used on the river in 1988, 1989 and 1993. However, the 1993 diary program only covered the 2.5 mile long catch and release section.

Although 50 persons originally signed up to keep a diary, 13 diaries were eventually returned with usable trip information. However, those 13 diarists did report a substantial number of trips made (209) and hours fished (702). As expected, the majority of diarist trips were made by anglers targeting trout (94%) and occurred in the months of April, May and June (79% of total trips). A total of 499 yearling brown trout (96% released), 213 two-year-old and older brown trout (91% released), 178 rainbow trout (98% released), 14 brook trout (all released) and 20 smallmouth bass (all released) were reportedly caught by the diarists. Brown and rainbow trout are stocked by DEC, while brook trout are stocked in the Pennsylvania portion of the river and likely move downstream into the New York portion.

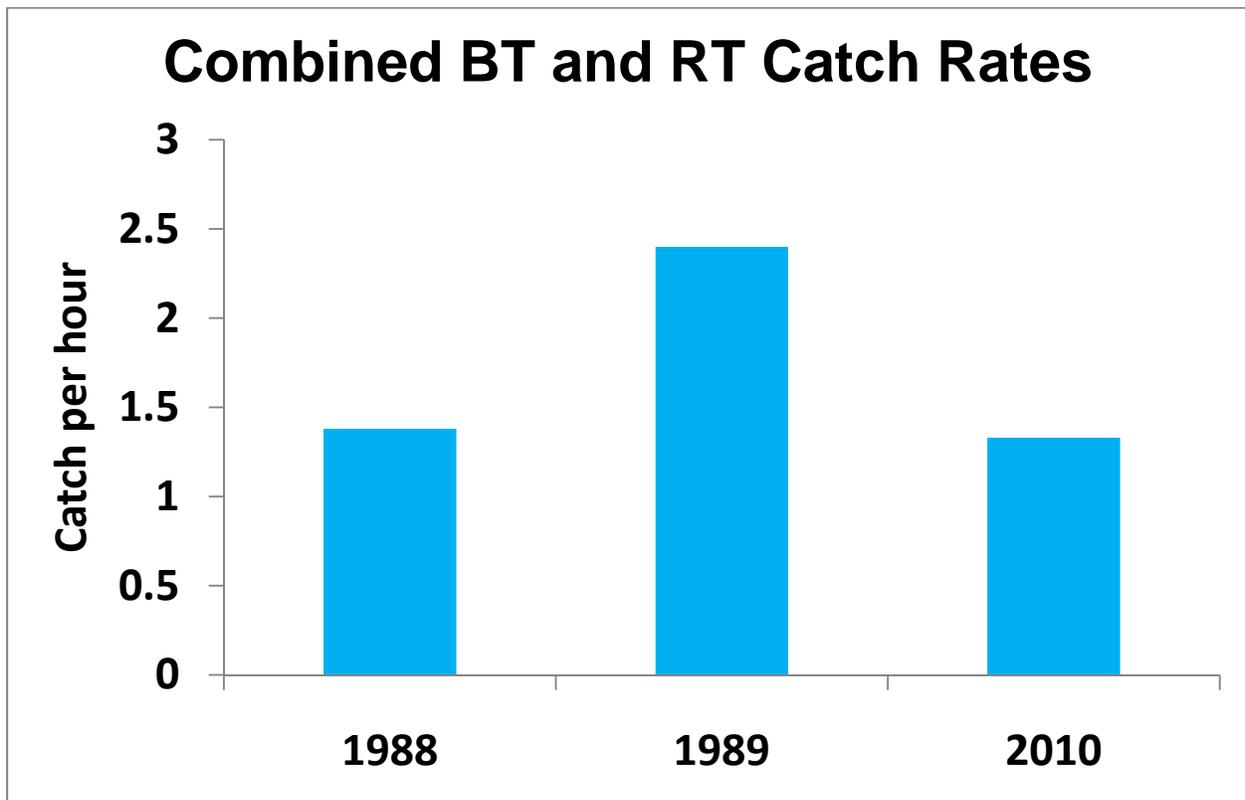
The combined average catch rate for brown trout and rainbow trout of 1.33 fish/hour was well above the management objective of 0.5 fish/hour (1 fish caught every two hours of fishing) (Table 1). However, it is important to keep in mind that diarists tend to be more skilled than the average angler, thus we would expect their catch rates to be above the average angler's on this stream. Although only a few angler trips (12) targeted bass, the average catch rate for smallmouth bass in the diary program was also good at 0.66 fish/hour.

Table 1. Angler diarist catch and catch rates (fish/hour) for brown trout, rainbow trout and smallmouth bass in the 2010 angler diary program on the Genesee River.

	Total number caught	Catch rate
Yearling Brown Trout	499	0.74
Two-year-old and older Brown Trout	213	0.32
Rainbow Trout	178	0.27
Smallmouth Bass	20	0.66

The diarist's average catch rate for brown and rainbow trout combined in 2010 (1.33) is nearly identical to the average catch rate found in the 1988 diary program (1.38 fish/hour), but lower than the rate found in the 1989 program (2.40 fish/hour) (Figure 1).

Figure 1. Angler diarist combined catch rates (fish/hour) for brown trout and rainbow trout in the 1988, 1989 and 2010 angler diary programs on the Genesee River.



For this diary program, the Genesee River was divided into 5 sections, with Section 1 from the PA line to Wellsville, Section 2 being the catch and release section, Section 3 from Wellsville to Route 86 (below Belmont), Section 4 from Route 86 to Portageville and Section 5 from Portageville to the Livingston County line. Trout fishing trips only occurred in sections 1-4, with the majority of the trips (65%) taking place in Section 1. Diarist's average catch rates for brown and rainbow trout combined, by section, varied from a low of 0.59 fish/hour in Section 4 to a high of 2.01 fish/hour in Section 3 (Table 2). Although there was a large range of catch rates between sections, these differences were only statistically significant for Section 4. Only Sections 1-3 are stocked with trout, thus it is expected that average catch rates for trout in Section 4 would be the lowest.

Table 2. Number of angler trips and angler diarist catch rates (fish/hour) for brown trout and rainbow trout for anglers targeting trout, by section fished, in the 2010 angler diary program on the Genesee River.

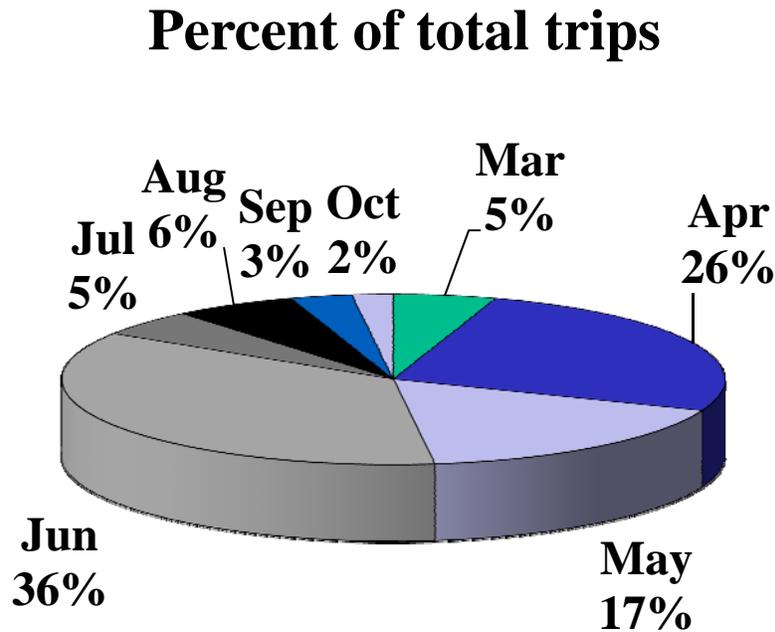
Section	Number of trips (% of total)	Brown trout catch rate	Rainbow trout catch rate	Combined catch rate
1	129 (65%)	0.97	0.20	1.17
2	44 (22%)	1.18	0.45	1.63
3	21 (11%)	1.64	0.37	2.01
4	3 (2%)	0.59	0	0.59

Interestingly, although rainbow trout are only stocked in the river upstream of Wellsville (Sections 1 and 2) (brown trout are stocked in Sections 1-3), angler catch rates for rainbow trout in Section 3 (0.37 fish/hour) were higher than in Section 1 and only slightly lower than Section 2 (Table 2). This indicates that stocked rainbow trout are moving downstream into Section 3. No rainbow trout were reported to have been caught in Section 4.

A considerable number of holdover-sized brown and rainbow trout (>18 inches) were reported by diarists in 2010, indicating there are likely some stocked trout overwintering at least one or two years in the river. Breeder-sized trout are stocked in the stream most fall's, thus it is difficult to determine what proportion of the larger trout are actually holding over in the streams for multiple years. The largest brown trout reported was 19.5" and the largest rainbow trout was 20".

When we examine diarist use by month, we see as expected, the majority (79%) of the angler trips occurred during the months of April, May and June (Figure 2).

Figure 2. Angler diarist trips, by month for the 2010 angler diary program on the Genesee River.



Angler diarist combined catch rates for brown and rainbow trout by month ranged from a low of 0.56 fish/hour in April to a high of 3.32 fish/hour in September. However, there was considerable variation and statistically, none of the month's catch rates differed (Table 3).

Table 3. Number of angler trips and angler diarist catch rates (fish/hour) for brown trout and rainbow trout, for anglers targeting trout, by month, in the 2010 angler diary program on the Genesee River.

Month	Number of trips (% of total)	Brown trout catch rate	Rainbow trout catch rate	Combined catch rate
March	9 (5%)	1.49	0.16	1.65
April	51 (26%)	0.44	0.12	0.56
May	34 (17%)	0.93	0.27	1.20
June	71 (36%)	1.54	0.38	1.92

Table 3 continued.

Month	Number of trips (% of total)	Brown trout catch rate	Rainbow trout catch rate	Combined catch rate
July	10 (5%)	1.68	0.04	1.72
August	11 (6%)	1.78	0.84	2.62
September	6 (3%)	2.15	1.17	3.32
October	5 (2%)	0.92	0	0.92

The angler diary program on the river in 1993 covered only the catch and release section. However, we can compare the average catch rates between 1993 and 2010 for this section of the stream. The 1993 average catch rate (1.51 fish/hour) was very similar to that found in this year's program (1.63 fish/hour). Catch rates were similar even though considerably more fishing effort was expended in the catch and release section by diarists in 1993 than in 2010 (Table 4). The diarist's average catch rates both years exceeded the management objective for stream sections managed with catch and release regulations of 1.0 fish/hour.

Table 4. Number of angler hours and angler diarist catch rates (fish/hour) for trout, in the catch and release section, for the 1993 and 2010 angler diary programs on the Genesee River.

Year	Number of hours fishing	Catch rate
1993	800	1.51
2010	141	1.63

This year's diary program allowed us to gain valuable knowledge of the trout fishery in the Genesee River and compare it to past diary programs. The river appears to be providing adequate trout catch rates for anglers, even through the summer months. The very limited number of trips reported by diarists targeting bass did not allow for much analysis of the river's bass fishery. It is hoped that we can continue this program every 2-3 years to better monitor the river's fishery and make any needed adjustments. We are greatly indebted to the diarists who participated in the program in 2010! Without your help, the project could not have occurred.