

Wappinger Creek Fisheries Survey (Survey #322024)

Robert D. Adams, Region 3 Fisheries

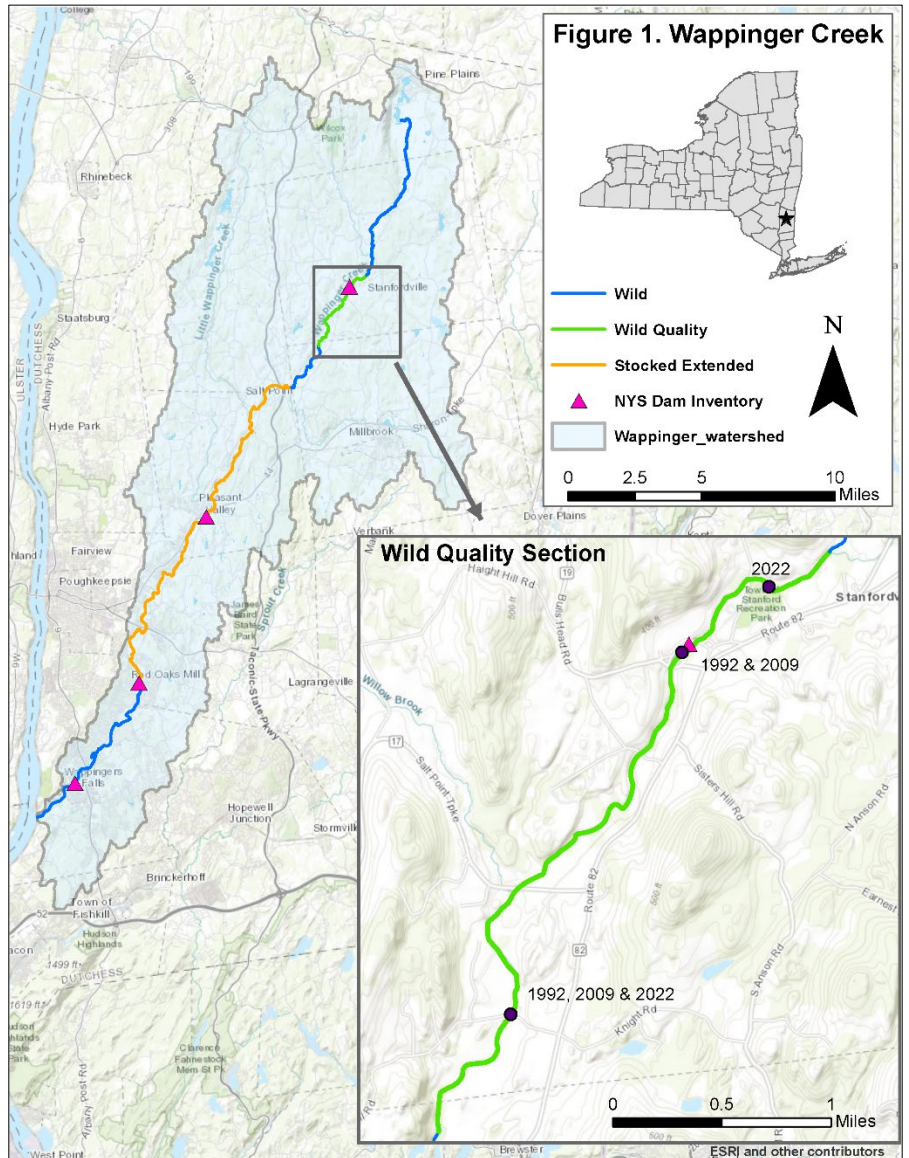
July 2022

Wappinger Creek is one of the largest trout streams in Dutchess County, NY (Figure 1). It begins at Twin Island Lake in Pine Plains, NY and flows roughly 38 miles southwest to the Hudson River. The New York State Dam inventory lists four dams on the creek: the first near the confluence with the Hudson River, a second at Red Oaks Mill, the third near the Memorial Park in Pleasant Valley, and the fourth just downstream of Stanfordville. Historically 20 of the 23 miles of stream that lies between the dam at Red Oaks Mill to the confluence with Hunn's Lake Creek in Stanfordville, NY has been managed as a trout fishery, with a rainbow trout stocking policy below the dam at Pleasant Valley and a brown trout policy upstream of the dam. Anglers are afforded extensive access in both reaches through a combination of Public Fishing Rights, municipal, county, and unposted private parcels.

In 2020, the stocking policies were re-evaluated using the new management standards established in the revised New York Trout Stream Management Plan (NYSDEC 2020), relying on two extensive surveys of the managed reach that took place in 1992 and 2009. After careful review, it was determined the 3.8 miles of creek that flows downstream from the confluence of

Hunn's Lake Creek to 0.4 miles downstream of Jameson Hill Road met the 'Wild Quality' standards in 1992 and a change in management was recommended. The purpose of the 2022 survey was to gather more recent data to determine (1) if the 'Wild Quality' reach is still maintaining wild quality standards and (2) if there is any noticeable change in natural reproduction in this reach now that stocking has been eliminated.

In July of 2022, NYSDEC staff sampled one of the two sites previously sampled in the 'Wild Quality' reach as well as a new site near the Stanford Recreation Park. The site below the dam that was sampled in both 1992 and 2009 was not sampled in 2022 because it required access through posted private property. Gear type and crew sizes in 2022 were similar to the previous surveys; however, two pass depletions were made in 2022 instead of the single pass made in prior sampling events (Table 1). Blocking seines were used to isolate both



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sampling sites and fish were sampled using a stream electrofisher with three wands and four scappers. One of the three electrofishing wands stopped working mid-way through the first sampling run at the Stanford Recreation Park site. A backpack shocker was used as a third wand on the second run.

Table 1. Comparison of survey characteristics and catches

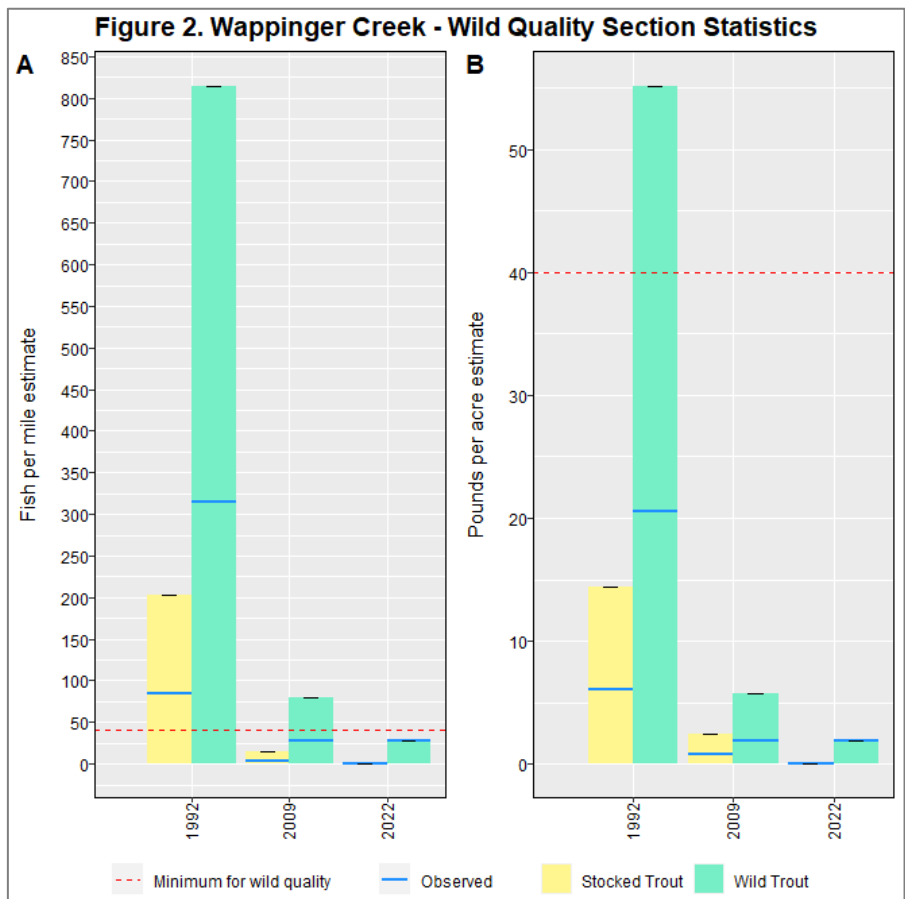
Site	Year	Site characteristics		Gear	Wands	Scappers	Passes	Wild Brown Trout	
		Length (ft)	Width (ft)					YOY	Older
Stanford Recreation Park	2022	289	25	Stream electrofisher - Coffelt box	3*	4	2	5	0
Bulls Head Road	1992	300	37	Stream electrofisher - Coffelt box	3	3	1	9	15
	2009	315	45	Stream electrofisher - Coffelt box	3	2	1	0	1
Jameson Hill Road	1992	409	32	Stream electrofisher - Coffelt box	3	3	1	10	28
	2009	572	36	Stream electrofisher - Coffelt box	3	2	1	0	4
	2022	372	31	Stream electrofisher - Coffelt box	3	4	2	1	4

*one stream electrofisher wand stopped working halfway through run 1, added backpack shocker for run 2

The 2022 results are compared with the previous years' surveys in Table 1 and Figure 2. Figure 2A shows the estimated and observed yearling and older trout per mile, while Figure 2B shows the estimated and observed pounds of trout per acre. Catch rates in 2022 were similar to the 2009 survey, with both falling well short of the 'Wild Quality' standards observed in 1992. The capture of several young-of-year brown trout in 2022 indicate reproduction is still occurring; however, productivity has fallen much lower than what was documented in 1992.

These sites will be re-sampled in 2023 in conjunction with a summertime thermal study of the reach. Additional fish sampling sites will be scouted within the current 'Wild Quality' section to better represent the reach in its entirety. A full report evaluating the two years of sampling will follow the 2023 survey and will include recommendations for future management actions.

Figure 2. Wappinger Creek - Wild Quality Section Statistics



Literature Cited

NYSDEC. (2020). *New York State Trout Stream Management Plan*. Albany: New York State Department of Environmental Conservation.

