



Department of
Environmental
Conservation

Update on Tailwaters Studies

C&R Eval and JFIP Update



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Environmental
Conservation

Angler Use and Wild Trout Young of Year Recruitment

EVALUATING NEW YORK'S WINTER CATCH AND RELEASE SEASON

JANUARY 2021



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Conservation

Study Objectives

Estimate angling pressure on a statewide sample of trout stream reaches during the fall period formerly closed to fishing under statewide regulation.

Oct 15-Dec 15, 2021-2023

Determine if the angling pressure on wild stream reaches during the catch-and-release/spawning season negatively impacts young of year trout production. Aug 15-Sept 15, 2021-2023

Assess the extent of localized differences in the impact of angling during the period formerly closed to fishing under statewide regulation.

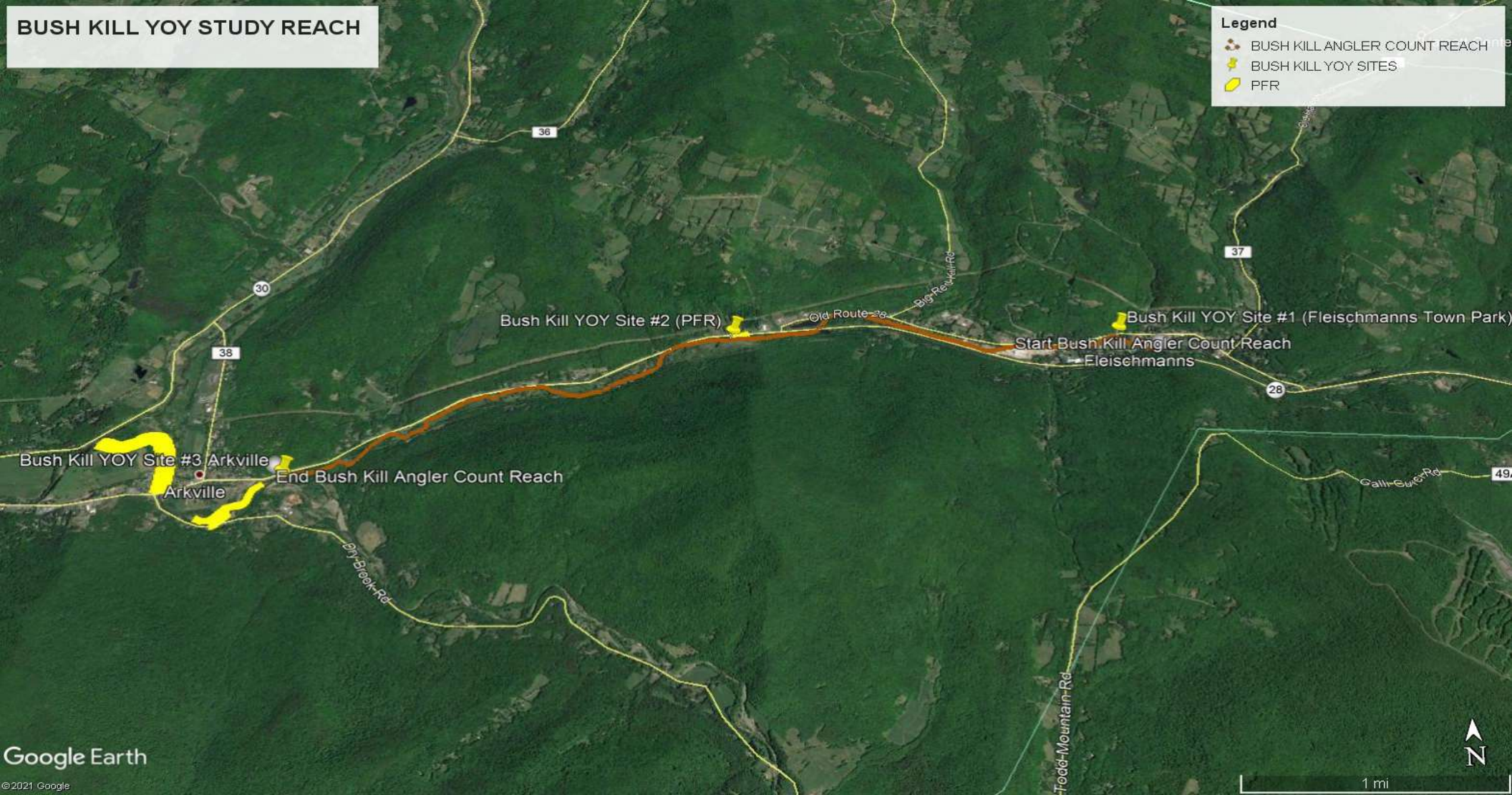


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BUSH KILL YOY STUDY REACH

Legend

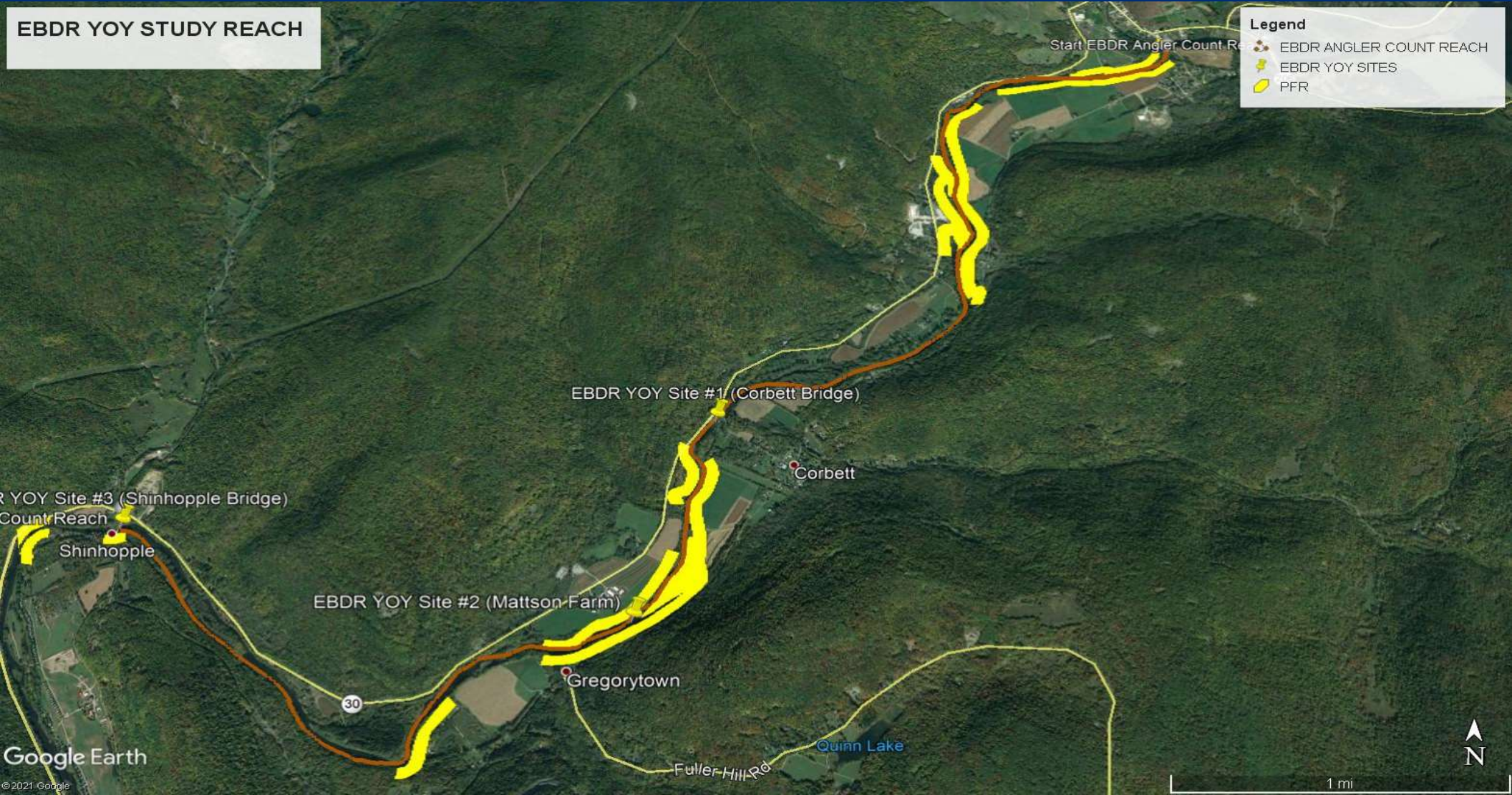
- BUSH KILL ANGLER COUNT REACH
- BUSH KILL YOY SITES
- PFR



EBDR YOY STUDY REACH



Legend

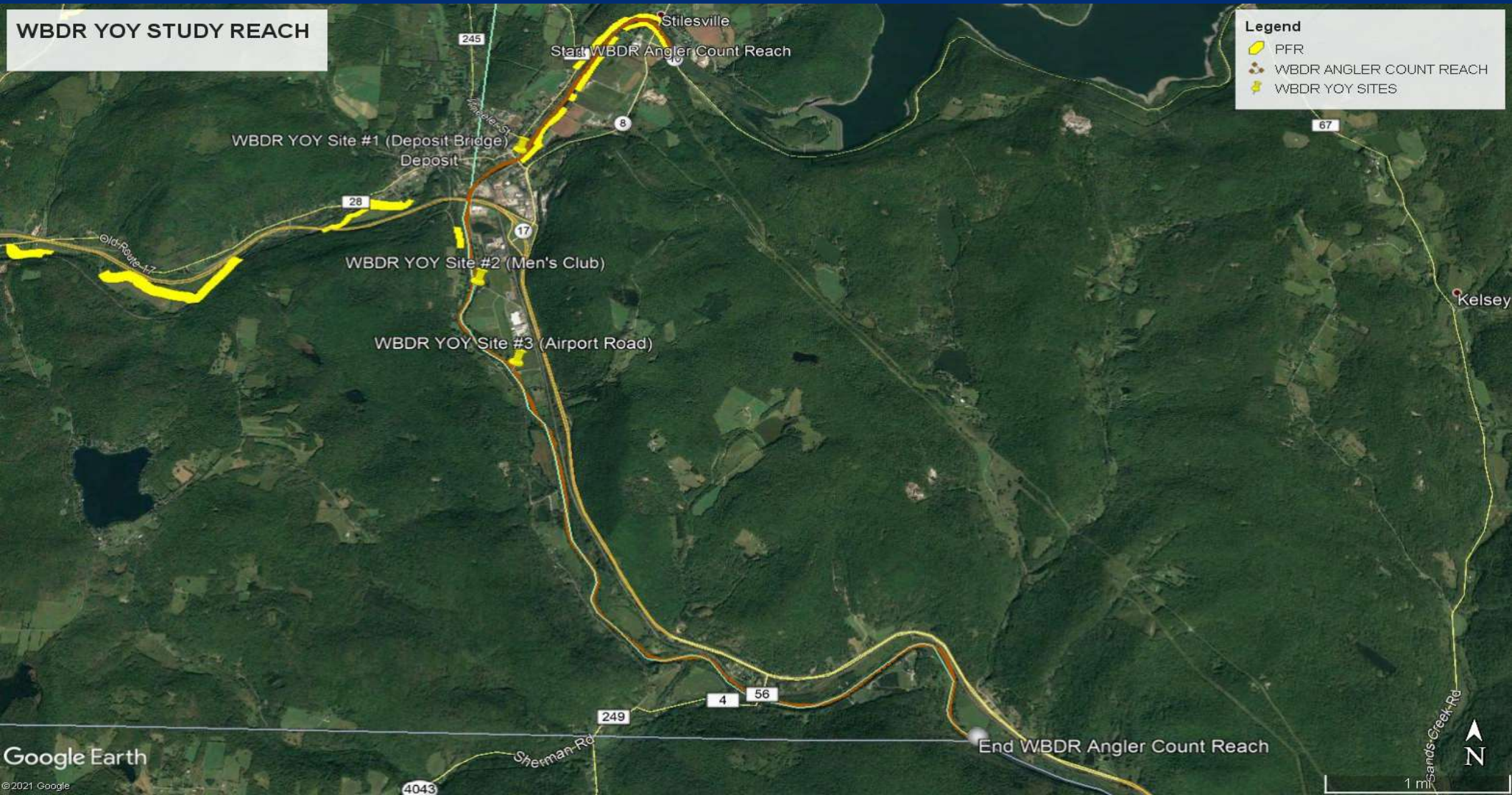
- EBDR ANGLER COUNT REACH
- EBDR YOY SITES
- PFR



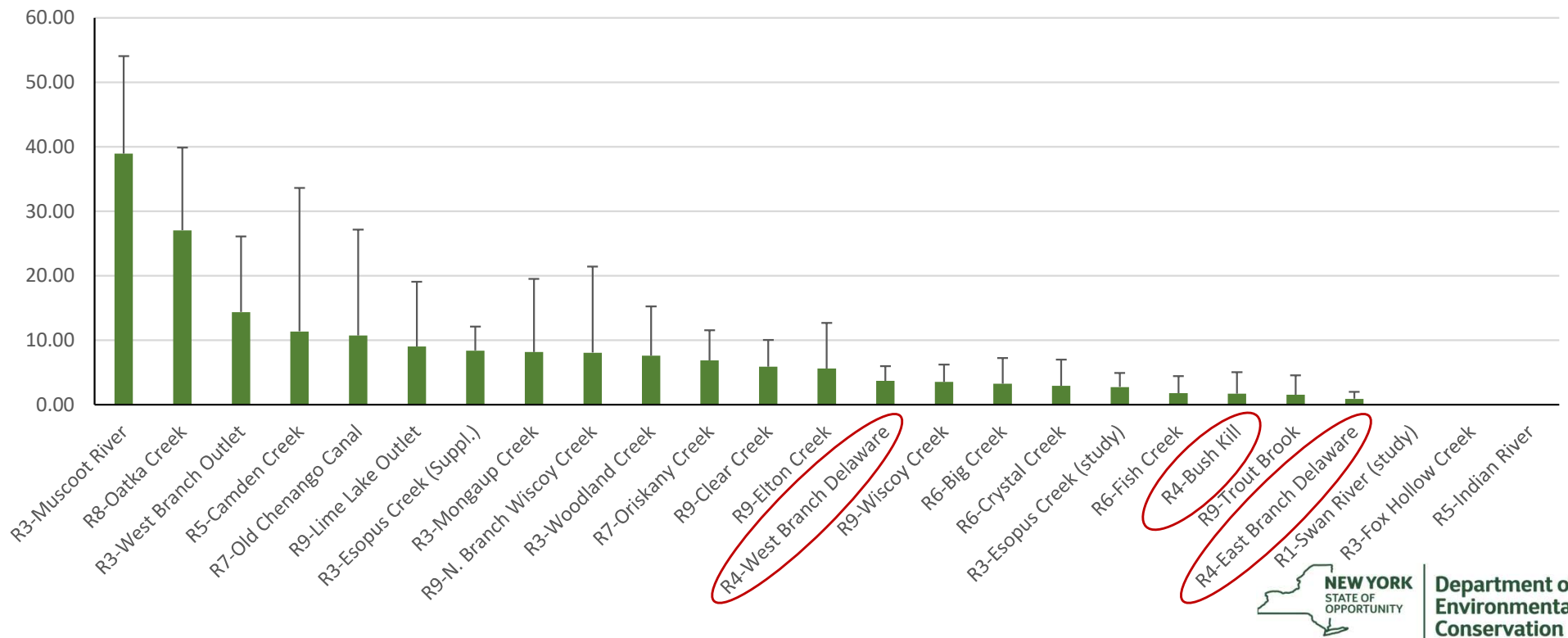
WBDR YOY STUDY REACH

Legend

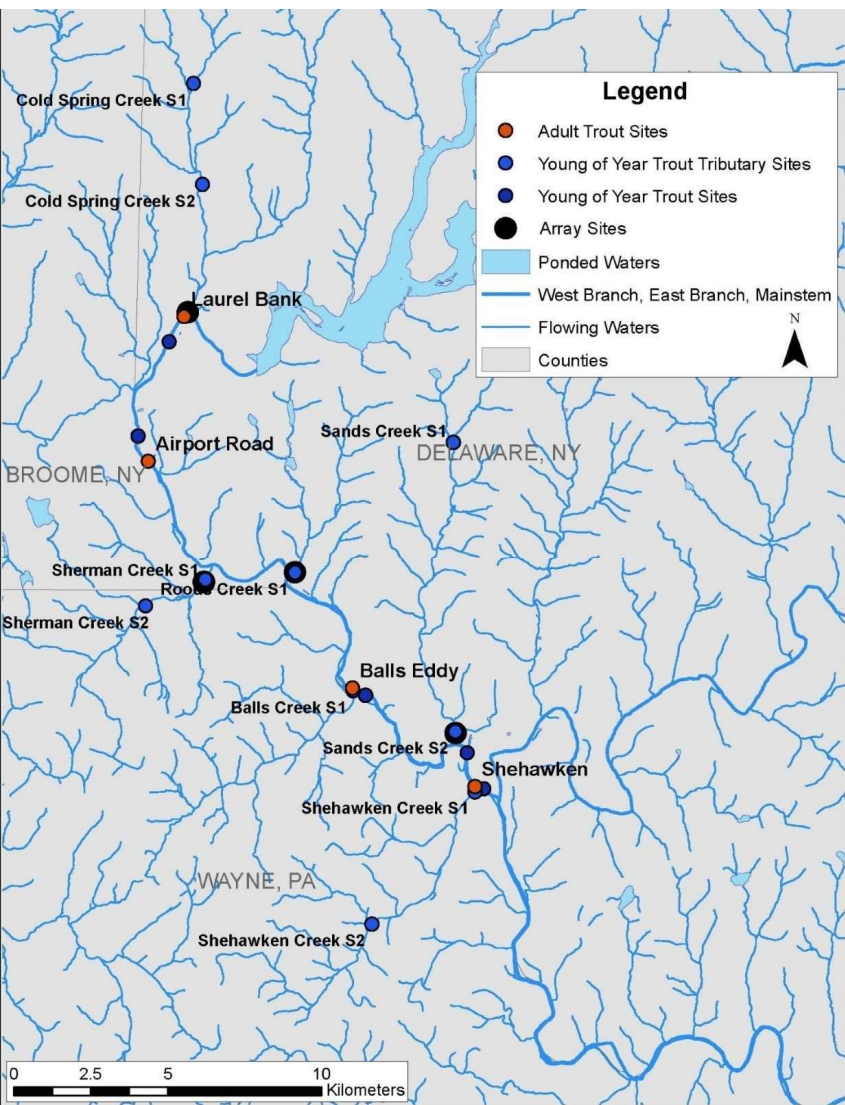
-  PFR
-  WBDR ANGLER COUNT REACH
-  WBDR YOY SITES



Angler Hours/Acre +95% Confidence Interval



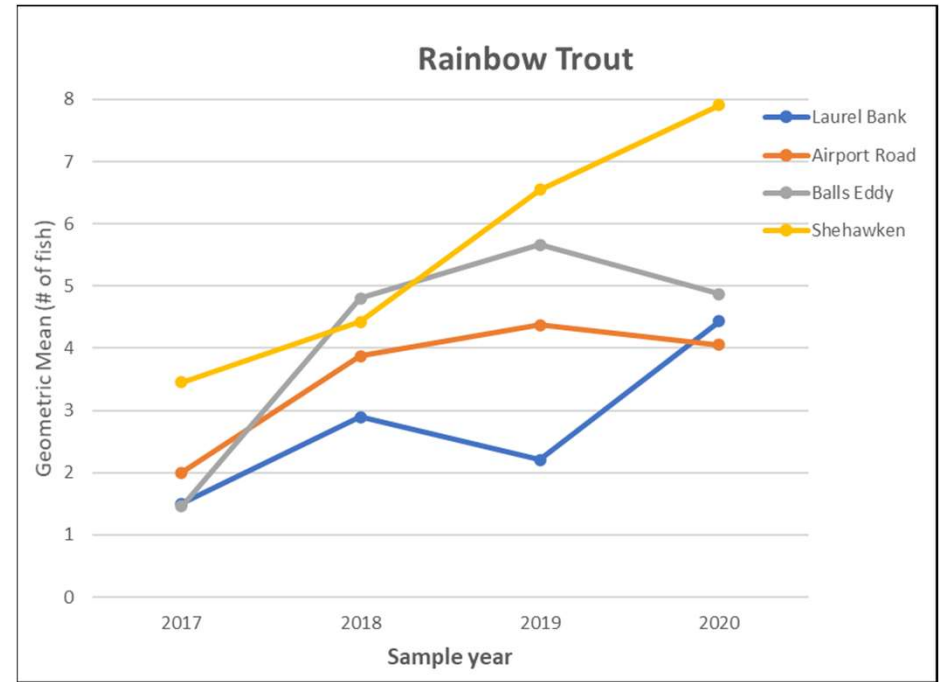
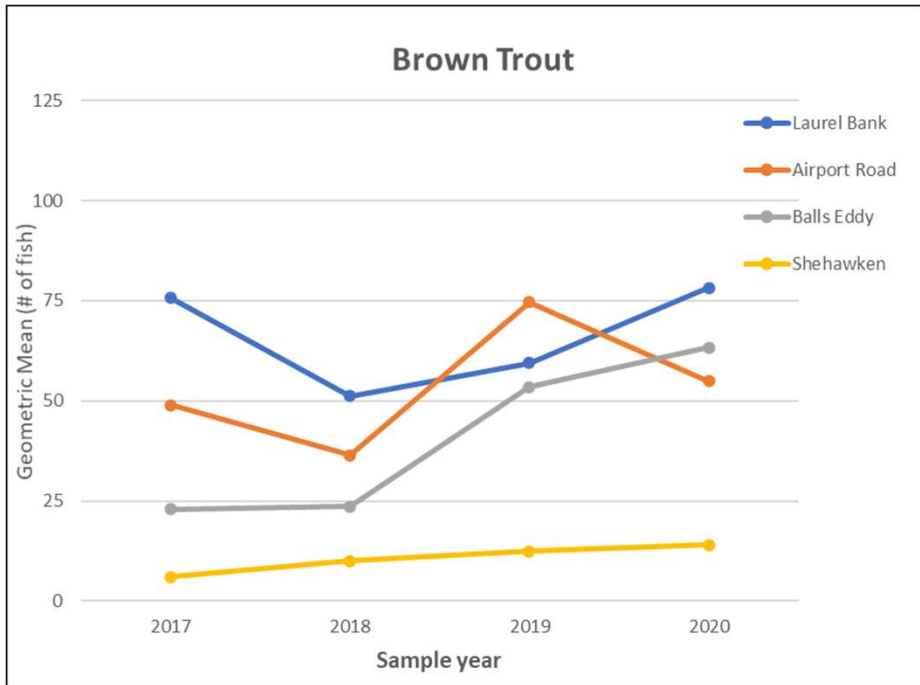
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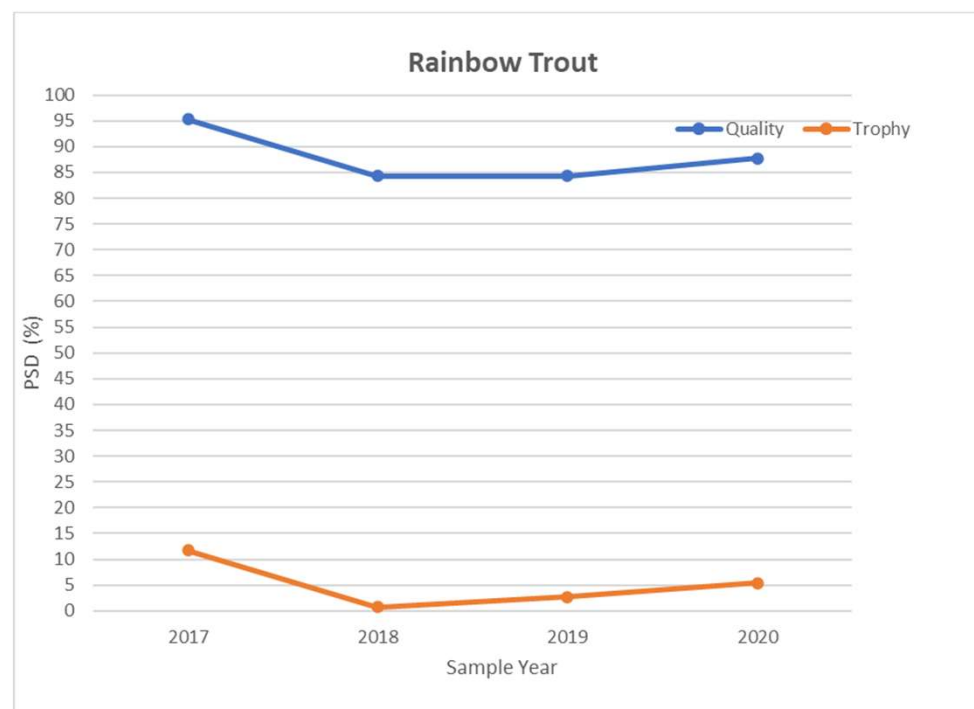
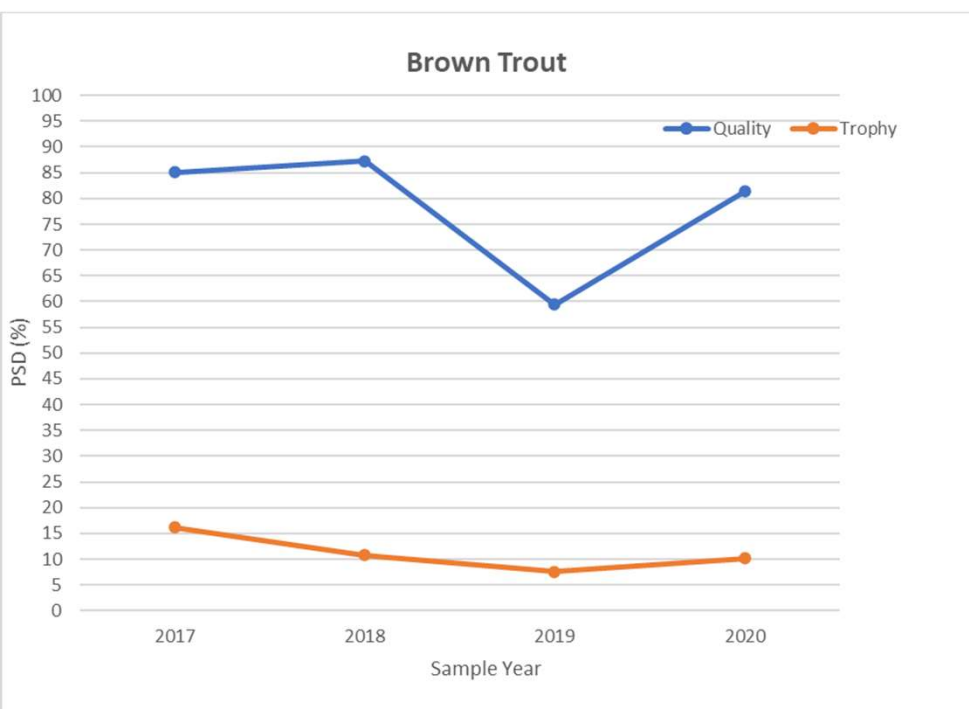
JFIP Electrofishing



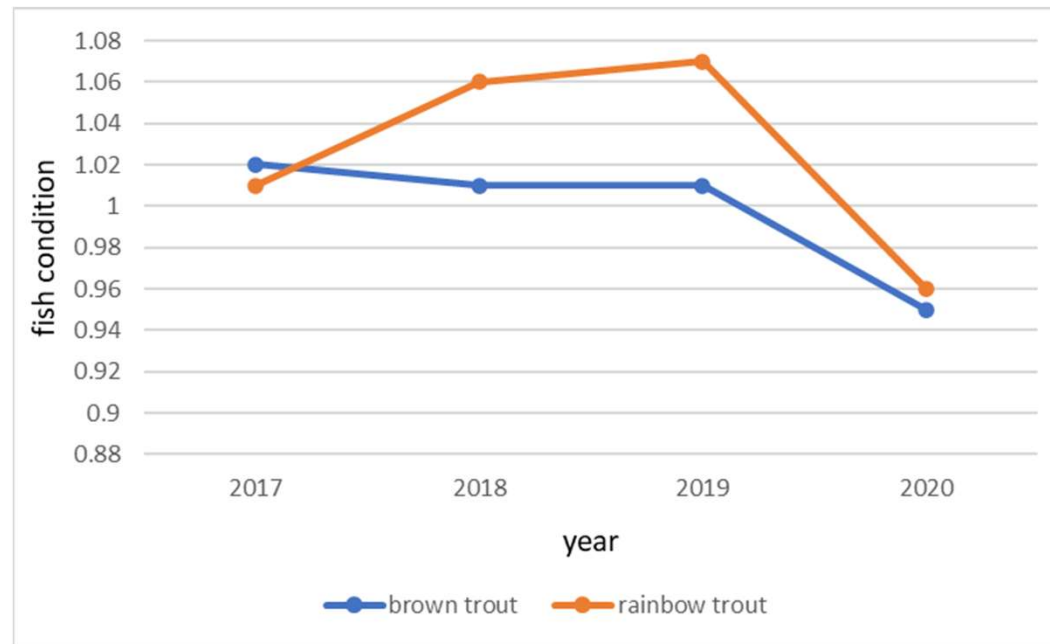
Geometric means of trout (total catch) by year at each night-time boat electrofishing site. 2017-2020



Yearly proportional stock density (PSD-Q) and relative stock density (RSD-T) of brown and rainbow trout from monthly night-time boat electrofishing site. 2017-2020



Average condition factor of trout (by year) in the West Branch Delaware River Tailwaters, 2017-2020.

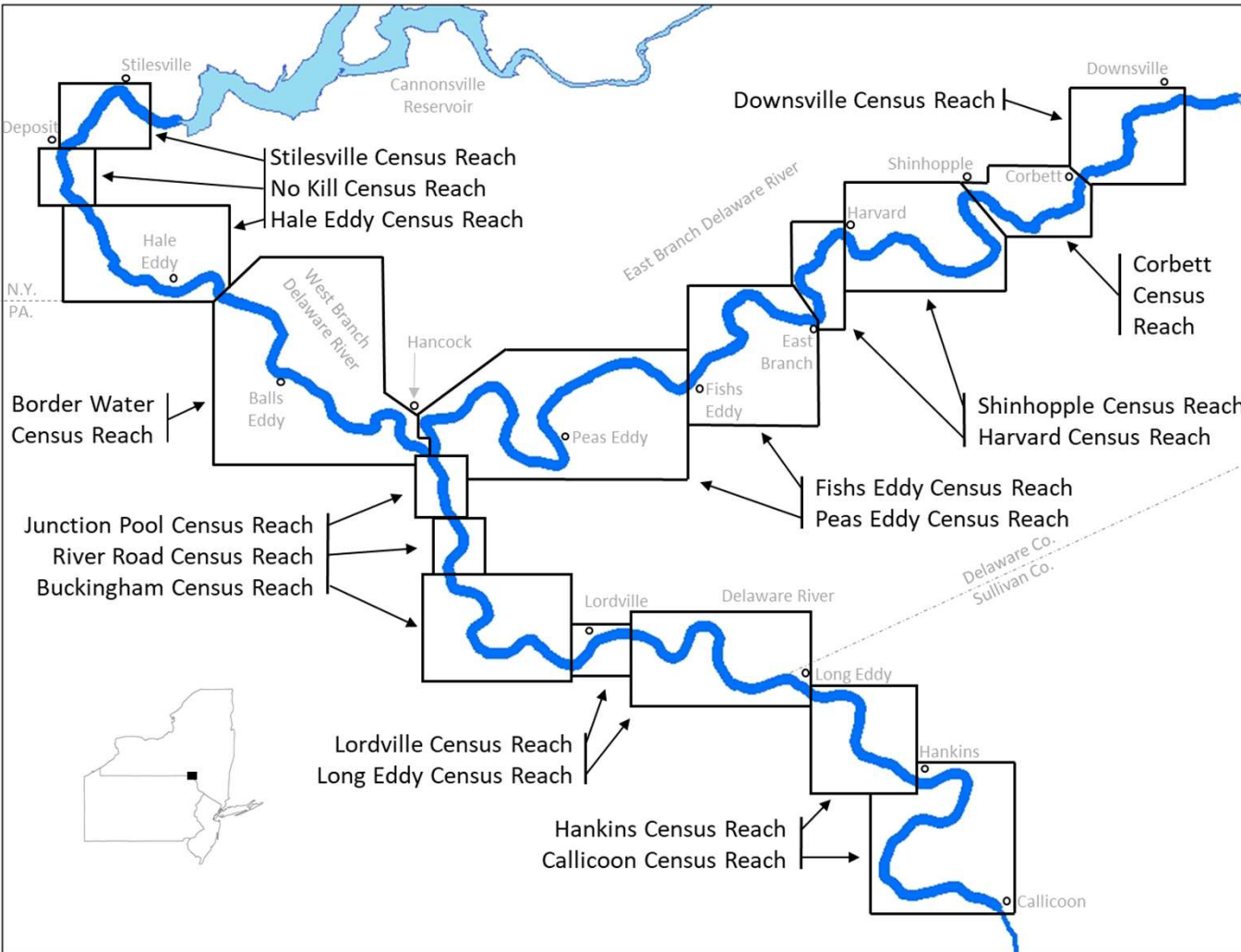


Site	Size	Brown Trout	Rainbow Trout
West Branch	Total	1089	53
	Young of year	1070	53
	Yearling & older	19	0
Balls Creek	Total	123	148
	Young of year	97	143
	Yearling & older	26	5
Cold Spring Creek	Total	500	134
	Young of year	439	112
	Yearling & older	61	22
Roods Creek	Total	306	45
	Young of year	217	36
	Yearling & older	89	9
Sands Creek	Total	445	313
	Young of year	389	290
	Yearling & older	56	23
Shehawken Creek	Total	265	126
	Young of year	204	122
	Yearling & older	61	4
Sherman Creek	Total	682	96
	Young of year	547	84
	Yearling & older	135	12

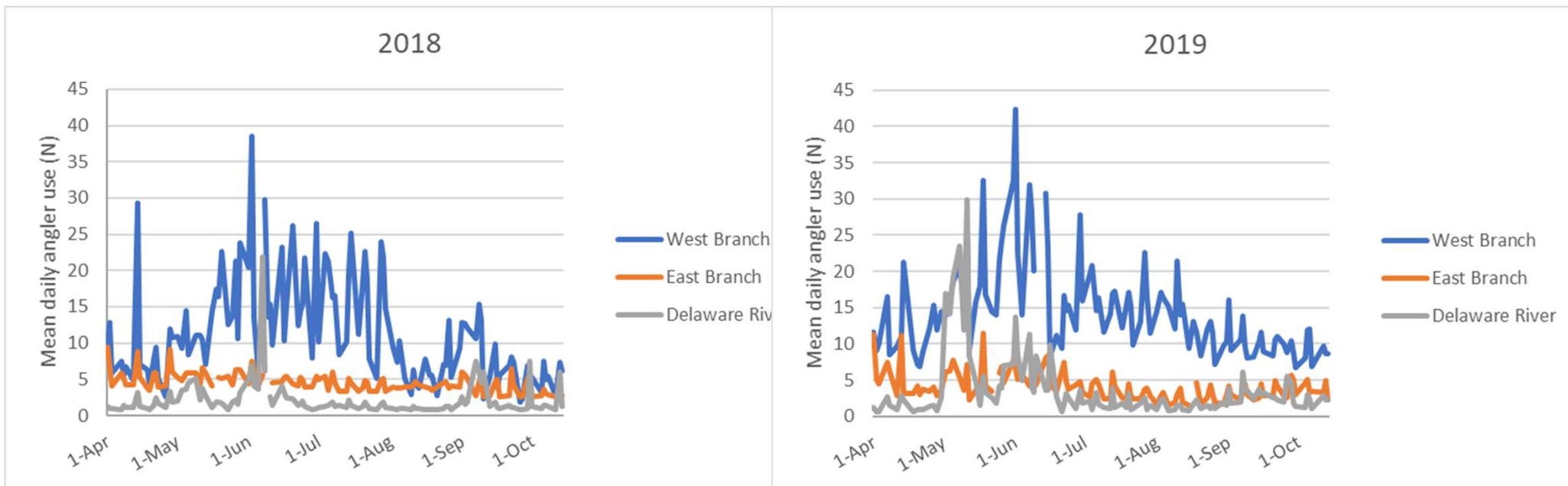
Total catch of brown trout and rainbow trout from day-time backpack July – October 2019.



Creel Survey 2018, 2019

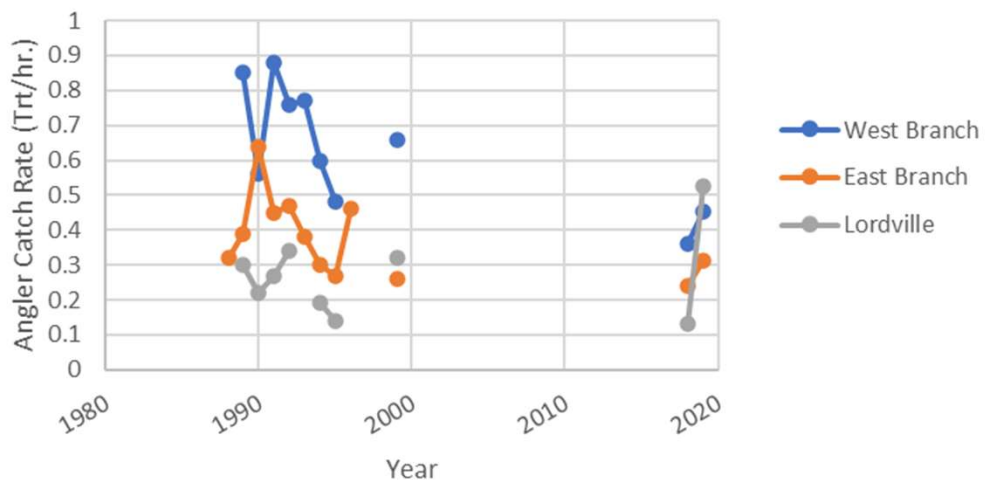


Mean daily angler use (N) by river within the Delaware tailwaters, 2018 and 2019

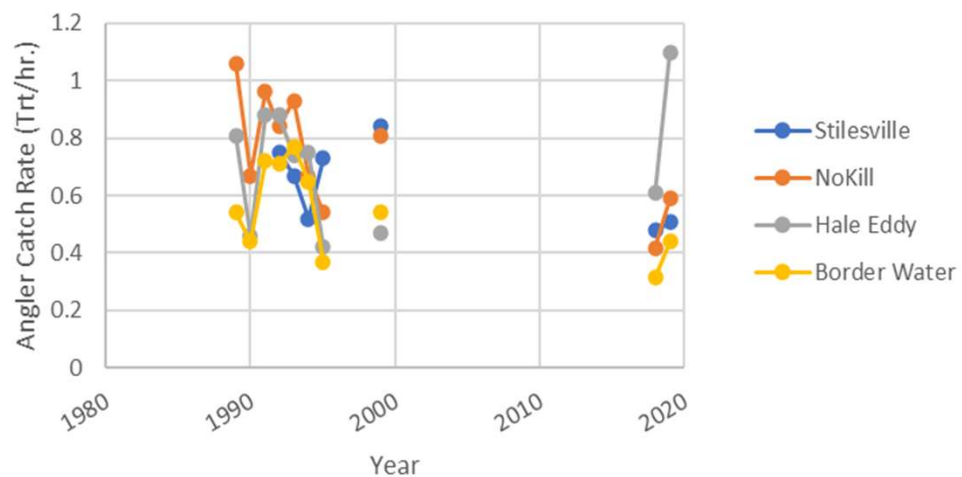


Catch rate comparison to historic data

Total Trout Catch Rate (WBT & WRT, combined)



Total Trout Catch Rate (WBT & WRT, combined)



PIT Tagging Study

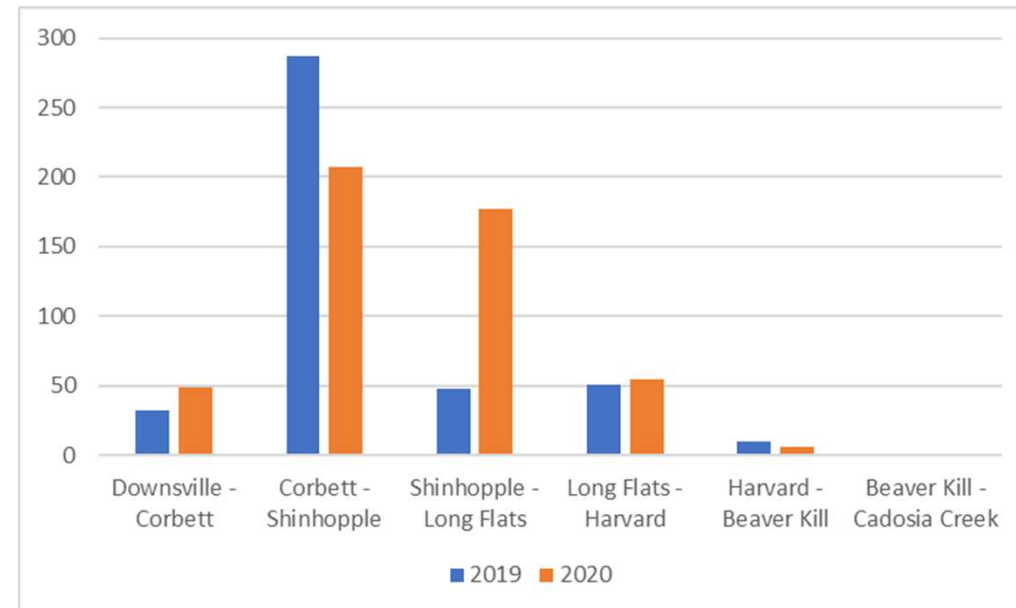
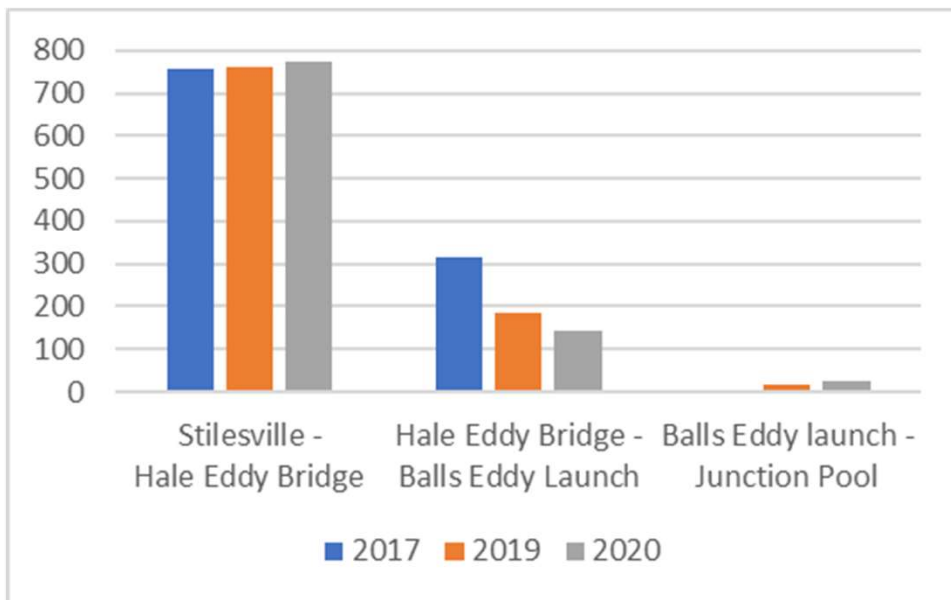


Frequency of recaptured PIT tagged trout in Delaware Tailwaters, 2019*

Water	# tagged	# recaps w/ tags	% recap	% movers	Tag Size	Notes
West Branch	917	76	8.29%	0.00%	12 mm	All at tagging location
West Branch	753	156	20.72%	1.28%	23 mm	All but two at tagging location
West Branch YOY sites	19	1	5.26%	0.00%	12 mm	All at tagging location
Sands Creek	61	14	22.95%	0.00%	12 mm	All at tagging location
Roods Creek	67	24	35.82%	0.00%	12 mm	All at tagging location
Sherman Creek	110	27	24.55%	3.70%	12 mm	All but one at tagging location
Cold Spring Creek	37	15	40.54%	0.00%	12 mm	All at tagging location
Balls Creek	26	4	15.38%	0.00%	12 mm	All at tagging location
Shehawken Creek	40	14	35.00%	0.00%	12 mm	All at tagging location
Total	2030	331	16.31%	0.91%		



Redd Counts: West and East Branches



Summary Statements

- Angling pressure up 2-3x from historic 1988-1997 data
- Catch rates low, harvest low, satisfaction high
- Fishery independent data shows high numbers of quality and trophy size fish
- Recruitment high with mainstems contributing more than expected
- Movement minimal
- Growth rates average, condition average, max age high

