

Pymatuning Reservoir

Crawford County

Spring 2019 Trap Net Survey



The biggest Walleye captured in 2019, a 29 in. female

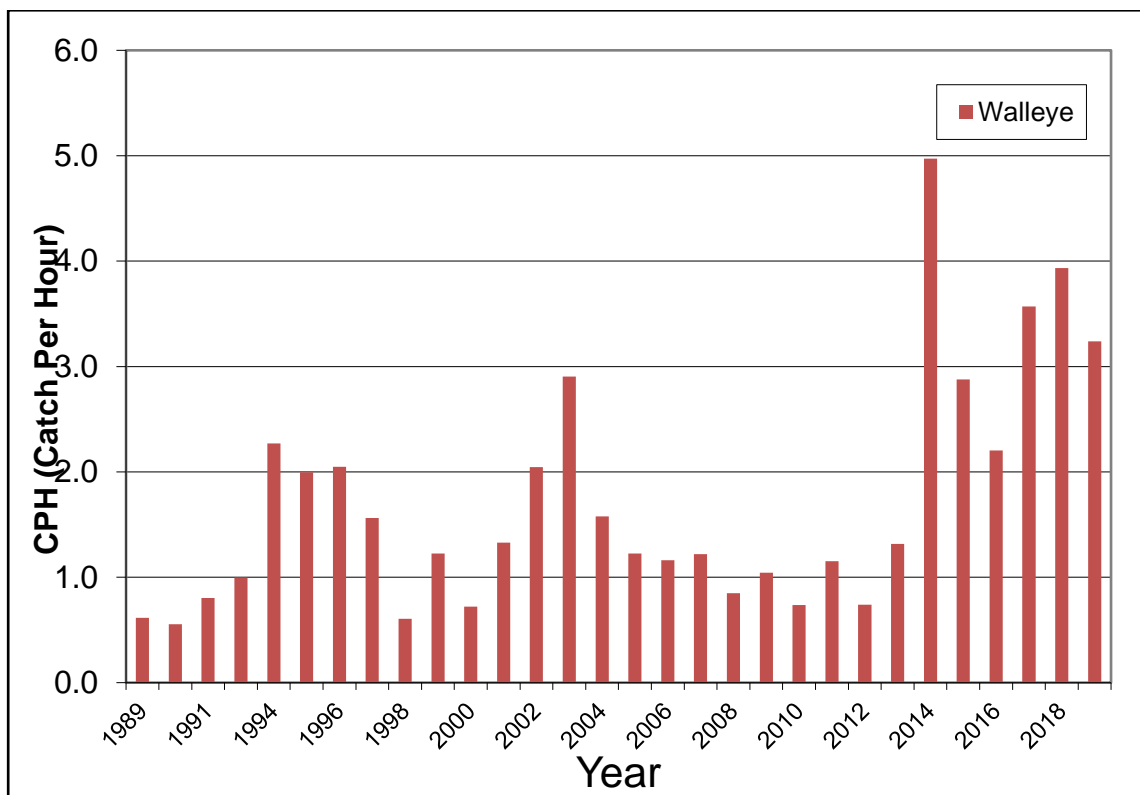
Fisheries Management Area 1 performed our annual survey of the Walleye population in Pymatuning Reservoir between March 25 and April 5, 2019. We completed 44 overnight sets totaling 1018 hours of effort. Surface water temperatures ranged from 3 to 6°C (37 - 43°F).

We captured a total of 3,296 Walleyes ranging in size from 7 to 29 inches. The size distribution of the 2019 sample is presented in Table 1. The 2019 survey produced catch rates of 75 Walleyes per net and 3.24 Walleyes per hour. The 2019 Walleye catch per hour (CPH) is compared to all historic surveys since 1989 in Figure 1. The 2019 Walleye catch rate declined from 2018 but was still the 4th highest since 1989. The average size Walleye this year was approximately 19 inches.

Table 1. Length frequency distribution of our 2019 Walleye sample.

Size Class (inches)	Number of Walleyes Caught
7	3
8	5
9	18
10	10
11	7
12	2
13	13
14	48
15	86
16	172
17	503
18	504
19	583
20	541
21	411
22	206
23	92
24	31
25	24
26	19
27	13
28	2
29	3
Total	3,296

Figure 1. Comparison of trap net catch rates for Walleyes in Pymatuning Reservoir, 1989 – 2019.



Despite the high abundance of Walleyes in 2017, our office received numerous complaints about the poor catches of Walleyes by anglers. We attributed the relatively poor fishing to the much higher than normal abundance of forage we saw during our 2017 trap net survey. Gizzard Shad, Alewives and Spottail Shiners were all well above their long-term averages of relative abundance. Total abundance of these primary forage species was down in 2018, and subsequently, Walleye fishing improved substantially. In 2019, our trap net catches for all three species declined further from 2018 and were substantially lower than the near record high abundance in 2017, suggesting that Walleye fishing should remain good in 2019. This forage base provides excellent growth and survival rates for all the predators in Pymatuning Reservoir.



Main forage species (l to r); Gizzard Shad, Alewife, Golden Shiner and Spottail Shiner

During these trap net surveys, we measure all sportfish and count all other fish. Table 2 presents all species captured in 2019, the number captured and their respective size ranges (if measured).



A couple of nice Crappies

Table 2. Species and size ranges captured by trap nets in Pymatuning Reservoir in 2019.

Species	Number caught	Size range (inches)
Walleyes	3,296	6 - 28
Black Crappies	159	2 - 14
White Crappies	13	9 - 11
Bluegills	108	2 - 8
Pumpkinseeds	21	2 - 7
Yellow Perch	2,518	3 - 12
White Bass	2	15 - 16
White Perch	2	4 - 10
Channel Catfish	370	8 - 29
Brown Bullhead	223	2 - 15
Yellow Bullhead	38	4 - 13
Largemouth Bass	5	6 - 18
Muskellunge	52	26 - 45
Bowfin	6	Counted Only

Quillback	330	Counted Only
Golden Redhorse	1	Counted Only
White Suckers	250	Counted Only
Common Carp	234	Counted Only
Emerald Shiners	1	Counted Only
Gizzard Shad	1,917	Counted Only
Alewives	1,519	Counted Only
Golden Shiners	66	Counted Only
Spottail Shiners	855	Counted Only
Creek Chub	1	Counted Only
Logperch	2	Counted Only
Total	11,989	

While the average size of Black Crappie in 2019 was impressive, abundance declined substantially from 2018 likely due to the high harvest during the spring and summer of 2018. All Crappies are now managed with a 9-inch Minimum Size Limit and a 20 per day Creel Limit. Our trap net catch of Bluegills also saw a substantial decline from 2018.

Conversely, our trap net catches of Yellow Perch have steadily increased over the last four years producing our 2nd highest total catch rate ever for Yellow Perch in 2019. The majority of the Yellow Perch sample (55%) was 6 inches or less, suggesting that they play an important role in the forage base. The next largest segment of the Yellow Perch catch was between 7 and 9 inches at 32%. Only 13% of the catch was equal to or greater than 9 inches, sizes preferred by anglers.

Channel Catfish still provide an excellent fishery. The Muskellunge population remains in good shape and angler reports suggest targeting them is productive. Many anglers targeting other species report catching small Muskellunge, which bodes well for the future.



Our biggest Musky of 2019, a 45-inch female

AQUATIC INVASIVE SPECIES in PYMATUNING RESERVOIR

As most people are aware, in late summer of 2017 a large number of Common Carp died at Pymatuning Reservoir. Testing by the University of Minnesota Invasive Species Research Center confirmed the Carp mortality was the result of Koi Herpes Virus (KHV) infection. The source of the virus in Pymatuning Reservoir remains unknown and this was the first occurrence of the disease in Pennsylvania. KHV effected only Common Carp and Koi. We expected more Common Carp mortality in 2018, but it didn't occur. However, we again observed sick, dying and dead Carp in April 2019. Samples of sick Carp were collected and sent to the lab for testing. Test results revealed another virus specific to Common Carp and Koi has been introduced to Pymatuning Reservoir, Carp Edema Virus (CEV). Overall, Carp mortality from CEV has been much lower than KHV.

At substantial costs, efforts by Pymatuning State Park and the Crawford County Conservation District to control the invasive plants Hydrilla and American Lotus are ongoing.

White Perch appear to be established in Pymatuning Reservoir with the capture of 2 more individuals in 2019. The individuals were from different year classes, suggesting that White Perch are reproducing in the lake. We can't repeat it enough; Please clean all your gear between fishing trips, especially when you are heading to a different water. And please leave the stocking of any and all fish to the Pennsylvania Fish and Boat Commission and the Ohio Division of Wildlife.

Fisheries Management Area 1