

Otsego Lake Percid Survey (Survey #:418028)

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Otsego Lake is a 4,226-acre headwater to the East Branch of the Susquehanna River in Otsego Co., NY. Historically this two-story oligotrophic lake supported an introduced walleye population, but the species was rare in the lake until reintroduced from 2000-2014. Percid gill netting in the late summer followed to monitor the stocking program in random years. The purpose of this warmwater gill net survey was to sample for tagged walleye in cooperation with SUNY Oneonta to estimate the naturalized population of walleye in Otsego Lake in support of local graduate students (see Wells 2018).

A water chemistry profile was completed on Sep 18, 2018. Water temperature (°F) and DO—dissolved oxygen (mg/l) ranged from 74.0 and 8.3 at the surface down to 67.4 and 9.0 near the bottom in 40 feet of water (fow) with a mean of 72.3 and 8.8, respectively. Nets were set overnight (avg. 21 h) at 10 standard sites around the lake at depths ranging from 11-38 fow between September 18-20, 2018.

A total of 12 fish species were netted resulting in 586 fish captured in the survey. Yellow perch were the most numerous (277), followed by smallmouth bass (80), with rock bass and walleye with 72 each. Percid catch rates were impressive for yellow perch and walleye at 27.7 and 7.2 fish/net, respectively (Table 1). Additionally, >66% of the walleye were of quality or legal (≥ 15 in.) size and >77% of the yellow perch were of quality (≥ 8 in.) size. Adult walleye ranged from 15.4 to 21.8 in. and a maximum weight of 3.5 lbs., while yellow perch ranged from 5.4 to 12.8 in and a maximum weight of almost one pound (Fig. 1).

Table 1. Overall results from gill netting Otsego Lake, NY on September 18-20, 2018.

----- Numbers by total length category¹ -----

Fish Species	N ²	fish/net ³	YY/SY ⁴	≥Stock	≥Quality	≥Preferred	≥Memorable
Largemouth bass	4	0.4	1	1	2	0	0
Smallmouth bass	80	8.0	4	16	17	35	2
Walleye	72	7.2	0	20	35	13	0
Pumpkinseed	61	6.1	0	3	14	44	0
Chain pickerel	5	0.5	0	2	1	2	0
Bluegill	4	0.4	0	2	0	2	0
Yellow perch	277	27.7	0	77	56	124	20
Brown bullhead	3	0.3	0	0	0	3	0
Rock bass	72	7.2	1	30	17	23	1
White sucker	5	0.5	0	0	0	2	2
Redbreast sunfish	2	0.2	0	1	0	1	0
Common carp	1	0.1	0	0	0	0	1

¹Total length categories for various fish species; table excludes older immature and larger trophy fish categories.

²N—total number of individuals caught, ³fish/net—catch per net effort at 6 sites, ⁴YY/SY—young of year or spring yearling (age -1) fish

	Largemouth bass	Smallmouth bass	Walleye /Ch.pickerel	Bluegill / Pumpkinseed	Y. perch / Brown bullhead	Rock bass	White sucker
Stock	≥ 8 in	≥ 7 in	≥ 10 in	≥ 3 in	≥ 5 in	≥ 4 in	≥ 6 in
Quality	≥12 in	≥11 in	≥ 15 in	≥ 6 in	≥8 in	≥ 7 in	≥ 10 in
Preferred	≥15 in	≥14 in	≥ 20 in	≥ 8 in	≥10/11 in	≥ 9 in	≥ 13 in
Memorable	≥ 20 in	≥ 17 in	≥ 25 in	≥ 10 in	≥ 12/14 in	≥ 11 in	≥ 16 in



Large Centrarchids were abundant in the survey as 60% of the smallmouth bass were of quality or legal size, ranging from 12.0 to 18.4 in and a maximum weight of 3.4 lbs. (Fig 1). Rock bass and pumpkinseed comprised most of the remaining non-target species sharing similar catch rates to walleye (Table 1). One half of the rock bass were of stock (≥ 6 in.) size, while all but three pumpkinseed were of quality (≥ 6 in.) size. Five other species were not well represented in the survey (Table 1). No age (scale) data from this survey are available to report.

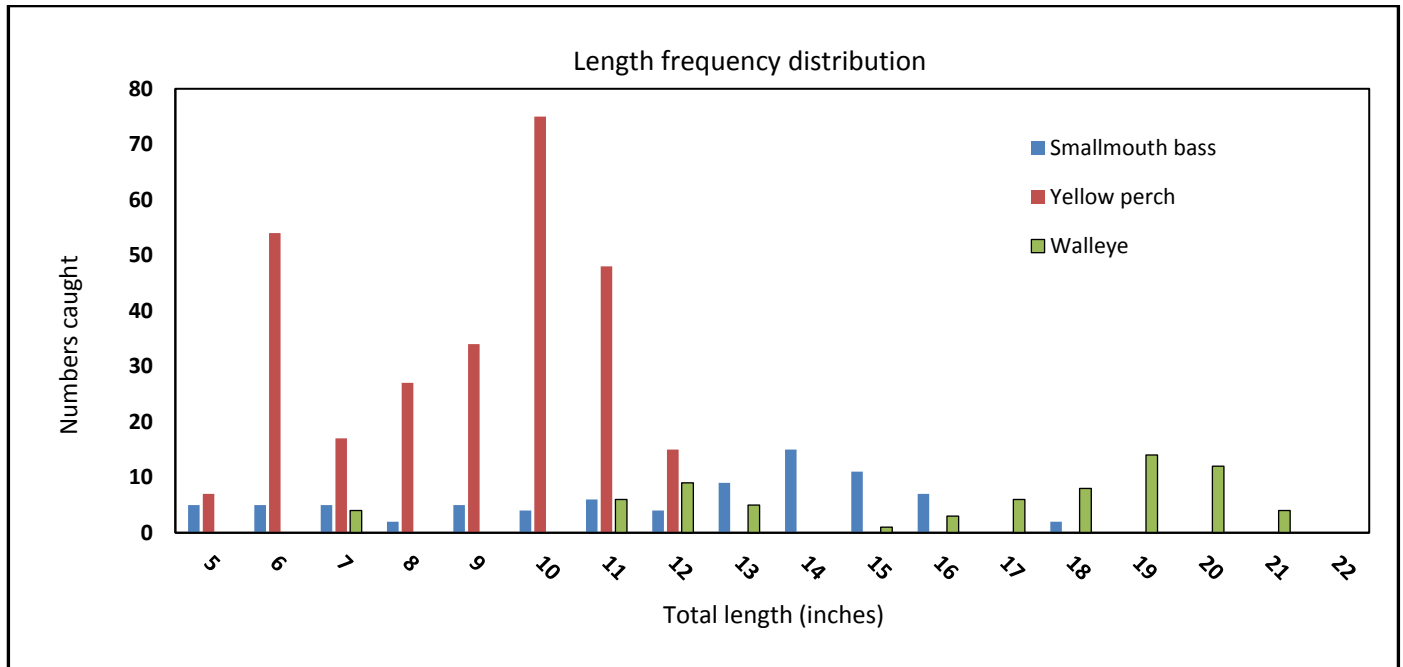


Figure 1. Gill netting results for three sportfish caught in Otsego Lake, NY on September 18-20, 2018.

In comparing the Percid nettings from September 2017 and 2018, results for walleye only slightly increased from 58 to 72 fish but the catch of yellow perch nearly doubled from 141 to 277. The impressive high abundance of large yellow perch indicates just how productive Otsego Lake can be for Percids with a recovered alewife-free zooplankton community (Wells et al. 2015). Furthermore, this increase of yellow perch is supporting a self-sustaining walleye population that appears to be growing with the long-term absence of alewife. Catch rates for walleye have steadily increased in the Percid nettings of 2013, 2017 and 2018 calculated at 5.8, 6.2, 7.2 fish/net, respectively.

Recaptures were much more productive in 2018 as well. A total of seven PIT (passive integrated responder) tags were found in walleye versus only two in the 2017 netting. Still, such a low recapture rate compared to nearly 1000 tagged walleye in the lake may indicate a larger walleye population than the ~5000-8000 estimates in previous years.

Interestingly, SUNY researchers from Oneonta and Cobleskill suggest wild recruitment may also be supported by lesser-known lake spawning walleye as gravid males have been found offshore at the north end of the lake in recent years. Like most popular walleye waters, fishing pressure and harvest can be high, especially during winters with safe ice. The Percid fishery in Otsego Lake is developing into one of the premiere hot spots in the Leatherstocking region of NYS and will continue to be managed under the general regulations providing quality year-round fishing opportunities for many years to come.

References

Wells, S.M, and H.A. Waterfield, and A.J. Reyes. 2015. Invasive species and native salmonids in Otsego Lake, NY, USA. *Poster first presented at the NY Chapter AFS mtg.* Lake Placid, NY. Feb 2015

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