

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, Bureau of Fisheries, Region 8

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Dear Angler,

Thank you for returning your 2019 Keuka Lake angler diary. This is the 52nd anniversary of our volunteer angler diary program on Keuka Lake, one of the longest programs in the state. Enclosed is a summary of your personal catch information, a summary of 1968 through 2019 catch statistics, your 2019 diary, and, if needed, a new diary for the 2020 season. If you need additional diaries, please contact our office.

A REMINDER: Please follow the directions that are found in your diary book. Unfortunately, we have had to delete trip records because of incomplete information.

- Remember to enter both your starting and ending time for each fishing trip. **We cannot use data from trips without start and end times.**
- Please indicate the species you are primarily fishing for.
- Record the appropriate code "C" if you keep the fish and "R" if you release the fish in the column marked "C/R".
- Only rainbow trout have fin clips. Please be sure to write no mark over the fin pictures to indicate that you observed the fins and none were clipped. Leaving it blank means that you did not observe the fish for fin clips.

Total catch of salmonines increased once again to 1,656, even as the total number of trips declined to its lowest level ever. One diary cooperator accounted for 58% of the total catch. Legal-sized fish represented 88% of the catch. Anglers averaged only 1.2 hours to catch a legal salmonine, similar to rates experienced in 2013-14. For comparison, diary cooperators on Canandaigua and Seneca Lakes' averaged 1.5 and 4.7 hours, respectively to catch one legal salmonine this past year. Although this could be considered an excellent catch rate, it continues to signal an unbalanced predator/prey relationship in the lake. Additionally, 99% of all salmonines caught were lake trout. Stocking of both brown trout and Atlantic salmon were eliminated in 2018 to reduce predator competition on a stressed forage base. Catch of these species will continue to decline, however within at least the last decade, their contribution was <5% of the total catch.

A total of 1,648 lake trout were caught, with 88% being legal-sized. Length and weight of lake trout kept averaged 20.2 inches and 2.6 pounds. July and August accounted for 56% of all lake trout caught. Sixty-one percent of legal-sized lake trout were released, slightly higher than recent years. The lake trout population in Keuka Lake continues to be sustained entirely by naturally reproduced fish.

Only four rainbow trout were caught by diary cooperators. 2020 will be the second year that yearling Finger Lakes strain rainbow trout will be stocked in Cold Brook. Previous surveys showed that stocked fingerling rainbow trout were not contributing to the adult population. Few rainbow trout continue to be caught in the lake and those that are have been wild fish. Hopefully yearling rainbow trout, by being larger than the fingerlings, will avoid predation by brown trout in the stream and lake trout when they return to the lake.

In 2019, DEC conducted several surveys including our standard lake trout netting, forage fish assessment, and first ever warmwater survey. Additionally, DEC, in cooperation with

United States Geological Service (USGS) and Cornell University, continued efforts to restore cisco, a native prey species.

Preliminary information from the standard lake trout netting showed an increase in the number of lake trout collected compared to 2016. Size classes <15 inches were abundant and should provide excellent fishing in the future. Overall condition looked good, however it appears that mysids, or freshwater shrimp are sustaining both young and adult lake trout. Sculpin were the most abundant fish species consumed by lake trout. No alewives or smelt were found in stomachs or collected in these nets providing evidence that these populations remain low.

Based on results of the forage assessment, the forage population, primarily alewives, are slightly increasing but still appear to be in low abundance. Nearly 70% of all alewives were collected from four sites, therefore schools of alewives, though present, are not equally distributed throughout the lake. When compared to other recently surveyed western Finger Lakes using similar sampling protocol, Keuka Lake alewife catch per unit effort (number/net night) remains well below other lake estimates. One cisco was collected during this survey.

The cisco restoration plan is continuing with an additional 94,500 stocked in 2019 bringing the total over two years to just under 195,000. Preliminary results from the tagging study suggest that survival is approximately 5%. In cooperation with USGS and Cornell University, we will continue to stock approximately 80,000 cisco annually. Attached is a flyer providing additional details on the cisco restoration program. Please note that we will have buoys out this year marking the location of the receivers.

During the warmwater survey, primarily directed at smallmouth and largemouth bass, a total of 1,065 fish representing 20 species were collected or observed. Yellow perch were the most numerous species caught (52%) followed by smallmouth bass (22%), rock bass (8%) and largemouth bass (5%). Overall, catch-per-unit-effort (CPUE) of smallmouth bass was higher than 71% of New York lakes of similar size. CPUE for quality and preferred size groups of smallmouth bass were higher than 86% of other New York Lakes. Initial response to the warmwater diary cooperator program was poor. We are still trying to recruit cooperators fishing for warmwater species. If you fish for warmwater species such as bass, walleye, pike, pickerel or perch, please consider participating.

If you recall, last year I indicated DEC is developing a Finger Lakes Management Plan which will outline the overall management direction for the Finger Lakes as well as lake specific goals and objectives. The draft plan is nearing completion. Public meetings to present the plan as well as receive public comments toward the management direction of the Finger Lakes should occur during 2020. You will be contacted once draft plans are finalized and public meetings scheduled. In addition, a Keuka Lake State of the Lake meeting, similar to the one that was held in 2017 will occur sometime in late summer early fall. All cooperators will be notified by mail once date and location are determined. In addition, we will hold a volunteer diary keeper meeting.

If you have any questions about Keuka Lake, please feel free to contact me. Thank you for your continued cooperation and good luck fishing during the 2020 season.

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**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
KEUKA LAKE TROUT AND SALMON FISHING DIARY SUMMARY**

YEAR	TOTAL FISHING TRIPS	AVE HOURS/ TRIP	TOTAL SALMONIDS ¹ KEPT				AVE LENGTH OF FISH KEPT (IN.) ²				AVE WEIGHT OF FISH KEPT (LBS.) ³				# HOURS TO CATCH LEGAL SALMONID ⁴	COOPERATORS
			LT	RT	BT	LLS	LT	RT	BT	LLS	LT	RT	BT	LLS		
1968	1521	3.7	2088	3	3	-	17.9	-	-	-	2.0	-	-	-	2.6	45
1969	1545	3.1	1919	11	-	-	18.2	-	-	-	1.8	-	-	-	2.3	44
1970	1231	3.4	1306	2	-	-	18.3	-	-	-	1.9	-	-	-	3.1	38
1971	953	3.1	974	6	-	-	19.2	-	-	-	2.4	-	-	-	2.9	31
1972	396	3.3	378	2	-	-	19.5	-	-	-	2.7	-	-	-	3.5	21
1973	626	3.3	590	12	-	-	20.8	19.3	-	-	3.1	3.1	-	-	3.4	22
1974	823	3.4	724	23	-	-	22.4	21.0	-	-	3.7	4.0	-	-	3.7	42
1975	1383	3.6	1356	73	3	-	21.6	17.3	-	-	3.7	2.4	-	-	3.4	48
1976	1294	3.8	1293	81	1	-	21.5	18.9	-	-	3.5	3.0	-	-	3.5	49
1977	1218	3.5	702	78	3	-	21.0	19.8	-	-	3.3	3.8	-	-	5.1	42
1978	1211	3.4	893	166	4	-	20.4	17.8	-	-	3.0	2.6	-	-	3.8	45
1979	1265	3.4	921	194	4	-	20.6	18.4	-	-	3.3	2.9	-	-	3.4	43
1980	1609	3.6	1307	144	2	2	20.0	17.6	-	-	2.9	2.7	-	-	3.3	48
1981	2118	3.3	1498	211	59	22	20.0	17.7	14.7	18.7	2.9	2.6	2.0	2.6	3.1	70
1982	2677	3.1	1913	135	147	55	20.8	18.3	17.7	18.1	3.3	3.0	3.1	2.6	3.3	72
1983	2246	3.2	1313	128	200	100	21.8	19.1	18.8	20.3	3.9	3.1	3.9	3.4	3.5	61
1984	1772	3.4	1070	142	132	41	20.4	19.2	18.0	18.7	3.1	3.1	3.2	2.6	3.8	60
1985	1578	3.3	1359	71	82	114	21.5	19.0	17.5	17.5	3.8	3.3	2.7	1.8	2.8	54
1986	1229	3.2	1027	36	36	61	21.3	17.1	18.3	17.4	3.5	2.0	3.2	1.6	2.9	44
1987	1194	3.1	1125	31	25	40	20.9	17.7	19.2	18.4	3.3	2.8	3.8	2.8	2.6	41
1988	1574	3.0	1410	36	132	212	20.5	18.6	17.8	18.6	3.2	2.9	3.1	2.5	1.9	48
1989	1789	3.4	1490	86	339	146	20.8	18.2	18.1	21.6	3.4	2.6	3.0	3.8	2.0	70
1990	1814	3.0	1572	43	183	17	20.5	19.0	17.8	18.7	3.1	2.9	2.8	3.0	1.9	70
1991	1887	3.2	1503	57	102	58	20.6	19.4	19.1	18.3	3.1	3.2	3.3	2.4	2.1	64
1992	1895	3.2	1174	37	87	31	20.7	19.1	17.8	17.9	3.2	2.8	2.6	2.1	3.1	73
1993	1722	3.4	1273	32	62	29	19.8	19.5	17.4	17.3	3.0	3.3	2.6	1.8	2.6	68
1994	2160	3.2	2215	23	164	68	19.5	17.2	17.8	16.2	2.7	2.1	2.6	1.4	1.5	76
1995	2342	3.5	2285	28	158	95	19.7	19.7	18.7	18.3	2.7	3.3	3.3	2.2	1.7	81
1996	1633	3.2	1564	19	46	7	19.8	19.6	19.7	20.3	2.7	3.5	4.2	3.5	1.7	73
1997	1627	3.0	1789	9	48	22	20.7	20.3	19.5	17.6	3.0	3.0	3.6	2.1	1.7	74
1998	1510	3.3	1459	37	76	65	21.2	16.8	19.9	18.9	3.2	1.9	4.0	2.5	2.1	60
1999	1214	3.1	1031	12	28	20	21.1	18.9	18.7	18.8	3.2	2.8	3.7	2.5	2.3	62
2000	1065	3.1	994	8	15	17	21.1	19.3	20.6	18.9	3.1	3.3	3.4	2.5	2.0	54
2001	1271	4.0	1461	6	22	17	21.9	19.7	20.2	19.9	3.4	2.0	3.4	2.6	2.1	51
2002	919	3.8	1188	11	12	28	20.7	16.7	19.0	20.8	3.0	1.8	2.4	3.5	1.7	43
2003	797	2.9	731	0	10	13	19.9	-	24.1	22.7	2.6	-	6.7	4.5	1.3	43
2004	556	2.8	476	1	3	5	19.6	-	-	22.2	2.4	-	-	4.2	1.2	37
2005	461	3.1	566	5	5	11	20.6	22.4	17.2	18.3	2.6	4.6	1.3	2.0	1.3	31
2006	462	3.0	376	2	7	8	19.9	24.0	21.6	20.1	2.5	-	5.4	3.1	1.3	23
2007	516	3.1	443	0	0	3	19.8	0	0	23.0	2.6	0	0	5.5	1.7	24
2008	440	3.0	405	1	4	1	20.6	21	19.0	18.0	2.6	-	3.0	2.5	1.7	22
2009	731	3.9	720	2	2	4	19.7	-	24.3	19.0	2.5	-	7.8	2.9	2.0	28
2010	632	3.1	746	7	1	11	20.9	22.6	17.0	19.4	2.9	3.1	2.5	2.5	1.3	29
2011	663	3.3	741	5	3	3	20.3	24.2	26.0	21.0	2.7	-	6.8	-	1.4	36
2012	671	3.7	1008	9	1	1	20.6	23.1	27.5	20.5	2.7	6.5	12.5	-	1.1	35
2013	910	3.4	1280	12	0	1	20.1	20.1	-	18.0	2.6	2.3	-	2.0	1.2	36
2014	783	3.2	849	9	1	4	20.6	21.8	22	18.5	2.8	3.5	-	1.6	1.6	36
2015	678	3.7	459	2	9	1	20.3	21.5	18.4	21.0	3.1	-	2.1	-	2.5	36
2016	689	3.5	632	2	10	13	20.5	23.5	22.5	21.3	2.6	-	5.0	3.3	1.7	34
2017	722	3.5	500	7	6	4	19.9	23.4	24.0	22.3	3.5	2.6	4.2	2.6	2.3	37
2018	648	3.1	508	18	3	8	20.8	22.3	23.0	21.0	2.7	8.2	-	2.5	1.7	33
2019	397	3.0	565	3	2	1	20.2	24.0	26.0	23.0	2.6	4.0	-	3.5	1.2	33

- 1 Salmonids = Lake Trout – LT; Rainbow Trout – RT; Brown Trout – BT; Landlocked Salmon – LLS
- 2 Average Length of Fish with Recorded Weights;
- 3 Average Weight of Fish with Recorded Lengths;
- 4 Includes Legal Salmonids Released

Table 1. Summary of 2019 Keuka Lake angler diary trips

Angler Hrs to Catch	Days	Angler	Angler	Avg Trip	Caught				Kept				Legal Salmonids	
	Fished	Trips	Hours	(hrs)	LTC	BTC	RTC	LLS	LTK	BTK	RTK	LLS	Caught	Legal
352	8	13	42.50	3.00	25	0	0	0	6	0	0	0	25	1.70
355	14	14	24.27	1.73	27	0	0	0	21	0	0	0	27	0.90
371	7	8	15.33	1.90	6	0	0	0	5	0	0	0	5	3.07
386	24	24	30.50	1.27	22	0	0	0	21	0	0	0	21	1.45
396	1	3	5.25	1.75	0	0	0	0	0	0	0	0	0	
447	8	9	16.00	1.69	0	0	0	0	0	0	0	0	0	
462	12	12	19.00	1.58	1	0	0	0	1	0	0	0	1	19.00
481	23	23	28.50	1.24	16	0	0	2	13	0	0	1	18	1.58
487	3	6	12.50	2.08	14	0	0	0	11	0	0	0	14	0.89
511	2	2	6.00	3.00	2	0	0	0	2	0	0	0	2	3.00
526	15	20	34.50	1.68	9	0	0	0	7	0	0	0	8	4.31
547	1	3	19.50	6.50	17	0	0	0	10	0	0	0	17	1.15
565	2	5	32.50	6.50	17	0	1	0	11	0	1	0	15	2.17
595	2	6	35.25	5.88	39	0	0	0	11	0	0	0	39	0.90
699	1	2	14.00	7.00	12	0	0	0	8	0	0	0	12	1.17
702	5	6	17.75	2.55	8	0	0	0	2	0	0	0	8	2.22
705	1	2	3.50	1.75	3	0	0	0	0	0	0	0	3	1.17
713	37	37	86.25	2.33	183	0	0	0	56	0	0	0	165	0.52
714	53	53	88.50	1.67	73	0	0	0	0	0	0	0	73	1.21
721	79	215	840.00	3.84	953	1	2	1	262	1	1	1	796	1.06
722	4	5	13.00	2.63	4	0	0	0	3	0	0	0	4	3.25
725	4	7	20.67	3.02	14	0	0	0	11	0	0	0	13	1.59
730	2	3	8.00	2.75	2	0	1	0	2	0	1	0	3	2.67
738	2	2	4.00	2.00	1	0	0	0	1	0	0	0	1	4.00
743	15	15	35.50	2.37	10	0	0	0	7	0	0	0	10	3.55
33	397	586	1729.77	2.97	1648	1	4	3	565	1	3	2	1460	1.18

Angler Hrs to Catch	Days Fished	Angler Trips	Angler Hours	Avg Trip (hrs)	Caught				Kept				Legal Salmonids	
					LTC	BTC	RTC	LLS	LTK	BTK	RTK	LLS	Caught	Legal
776	10	17	75.50	3.55	7	0	0	0	4	0	0	0	6	12.58
878	6	12	40.50	3.38	34	0	0	0	29	0	0	0	29	1.40
908	6	9	41.50	4.58	19	0	0	0	15	0	0	0	15	2.77
927	13	15	55.75	3.58	39	0	0	0	30	0	0	0	39	1.43
958	8	8	18.50	2.31	32	0	0	0	11	0	0	0	32	0.58
960	27	27	34.25	1.27	53	0	0	0	0	0	0	0	53	0.65
963	1	1	4.00	4.00	1	0	0	0	0	0	0	0	1	4.00
964	1	2	7.00	3.50	5	0	0	0	5	0	0	0	5	1.40
33	397	586	1729.77	2.97	1648	1	4	3	565	1	3	2	1460	1.18

ATTENTION: KEUKA LAKE ANGLERS AND BOATERS

When boating and angling on Keuka Lake this year, please be on the lookout for white buoys with fluorescent green flags throughout the lake. Solar-powered lights and reflective tape are attached to the buoys so they will also be visible at night. Up to 20 buoys will be located around the lake for two years as part of a research project.

The research project was initiated in 2018 as part of a cooperative effort by the New York State Department of Environmental Conservation (DEC), United States Geological Service (USGS), and Cornell University to study post-stocking survival and habitat use of cisco. Over the last two years, approximately 195,000 ciscoes were stocked as part of an experimental program to reestablish this native forage fish in Keuka Lake. Cisco were once abundant in the lake but have not been found since the mid-1990s. Since that time, lake conditions have become more favorable for cisco. A portion of stocked ciscoes have been implanted with small acoustic tags to track movements and survival of these fish. The buoys are attached to receivers placed on the lake bottom in waters generally more than 90 feet to pick up signals from the acoustic tags as cisco swim by. These receivers are anchored to the bottom of the lake. Interfering with the acoustic equipment will jeopardize research results.



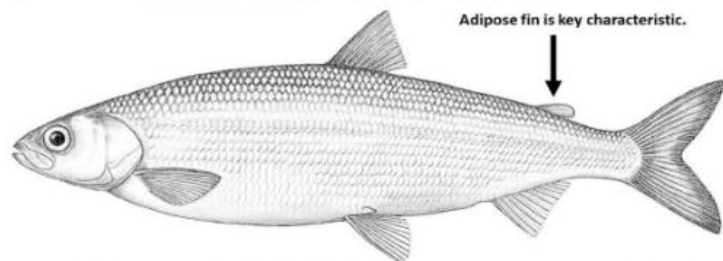
Anglers, please be aware that if you are fishing within 150 feet of these buoys, it is possible that fishing gear may get entangled in equipment used to anchor the buoys to the bottom.

In addition, if anglers catch a cisco or notice one in a stomach while cleaning your catch, please save it and contact DEC at 585-226-5343, or USGS at 315-730-0096.

Arrangements will be made to collect it. Information provided by this research will be utilized for future management decisions in Keuka Lake and other lakes throughout New York and the U.S. If you have any questions about this program, please feel free to contact us at the numbers listed above. Thank you for your cooperation.

Cisco Research

Please report Cisco catches to mchalupnicki@usgs.gov preferably with a picture, date, and location. Please keep carcass if possible.



Great Lakes
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