NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish, Wildlife and Marine Resources, Bureau of Fisheries, Region 8
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Dear Angler,

Thank you for returning your 2018 Keuka Lake angler diary. This is the 51st 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, referenced to the code number on the cover of your diary, a summary of 1968 through 2018 catch statistics, your 2018 diary, and, if needed, a new diary for the 2019 season. If you need additional diaries throughout the year 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 target 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.

In 2018, anglers caught a total of 1,215 salmonines, an increase over recent years. Sixty-one percent of the total catch was from one diary cooperator. Nearly 99% of all salmonines caught were legal sized, with anglers averaging 1.7 hours to catch a legal salmonine. Catch rates improved from 2017 but were identical to 2016 catch rates. For comparison, diary cooperators on Canandaigua and Seneca Lakes' averaged 1.4 and 4.5 hours, respectively to catch one legal salmonine this past year. This catch rate is more in line with recent results from Keuka Lake, however it continues to signal an unbalanced predator/prey relationship in the lake. Additionally, 97% of all salmonines caught were lake trout, once again indicating that rainbow and brown trout, and Atlantic salmon contribute little to the overall cooperator catch in the lake. Although we recently cut both brown trout and Atlantic salmon stocking to reduce predator competition on a stressed forage base, negative impacts to anglers' catch should not be noticeable until the 2019 angling season.

A total of 1,175 lake trout were caught, with 95% being legal-sized. Length and weight of lake trout kept averaged 20.8 inches and 2.7 pounds. June, July and August accounted for 65% of all lake trout caught. Fifty-four percent of legal sized lake trout were released, similar to recent years. The lake trout population in Keuka Lake continues to be sustained entirely by naturally reproduced fish.

The catch of both Atlantic salmon (N=10) and brown trout (N=5) were poor and similar to catches throughout the last decade. As a result of a significant decline in the alewife forage base in Keuka Lake and poor returns in the angler catch, both brown trout and Atlantic salmon stockings were last stocked in 2017. The future of these stockings will be dependent on future forage abundance and lake productivity measurements.

A total of 25 rainbow trout were caught, all by one cooperator. All were legal sized with 18 being harvested. No clips were observed on all 25 rainbow trout that were caught. Therefore, all rainbow trout caught were naturally reproduced. Fingerling stocking, which began in 2010, does not appear to be contributing to the adult spawning population. Beginning this year, 2019, yearling rainbow trout will be stocked into Cold Brook in the spring. In Catharine Creek, there has been an approximately 25% return on stocked yearlings. We will continue to monitor the rainbow trout population through the diary program and annual spring electrofishing to see if stocked yearlings increase our return rate. This year spring rainbow trout survey on Cold Brook will be March 22 beginning at 10:00 AM.

If you will recall last year we were pursuing several management actions to address concerns regarding the forage base collapse, primarily alewives, and its subsequent impacts on the coldwater fishery. One of the actions was to reduce predatory pressure in the lake by eliminating the annual brown trout and Atlantic salmon stockings. As mentioned earlier stocking was discontinued in 2018. Additionally, we were pursuing options to try and reestablish a native forage fish, the cisco, which tend to thrive in nutrient poor conditions and have a better chance to survive with reduced alewife and smelt populations. Fortunately, through cooperation with United States Geological Service (USGS) and Cornell University, we were able to stock 98,000+ cisco young of year in October 2018. Thirty-nine of these fish were implanted with radio tags. Receivers have been placed at various locations throughout the lake to track movements of these fish throughout the year and provide estimates of survival of stocked cisco. These receivers are anchored on the bottom of the lake and nylon rope is attached to each one to aid in retrieval process. Moving forward the plan is to stock 80,000 ciscoes over the next several years providing fish are available. We have plans to continue with the radio telemetry research. In addition, we can use your help. If you happen to catch a cisco or notice one in a fish stomach, please freeze it and contact us at 585-226-5343 as soon as possible and arrangements will be made to collect it. All stocked ciscoes have been marked prior to release. Utilizing specialized equipment, USGS will be able to determine if the fish has been stocked or wild. It is important to note that it is not feasible to indefinitely stock forage fish to maintain a predator population. Although stocking is planned to continue for several years, the goal is to establish a self-sustaining cisco population, and if unsuccessful, will be terminated.

DEC is currently 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, including Keuka Lake. Public meetings to present the plan as well as receive public comments toward the management direction of the Finger Lakes will occur during 2019. You will be contacted once draft plans are finalized and public meetings scheduled. Additionally, this summer we will once again be assessing the lake trout and forage population as well as being directly involved with the ongoing cisco research. We will also be assessing the black bass and yellow perch populations for the first time by sampling at night utilizing electrofishing gear in late spring/early summer. Other agencies and organizations continue to monitor water quality and lake productivity and we will be incorporating this data into our management plans.

As a reminder, we have started a Warmwater Diary Program for Seneca, Keuka, and Canandaigua Lakes. Historically, the warmwater fishery in these lakes has not received much attention. We are interested in anglers fishing for either largemouth and smallmouth bass, northern pike, chain pickerel, walleye, yellow perch, and panfish species. If you target these species and are interested in participating in the program or know other anglers that may be interested, please contact us at 585-226-5343. Initially we would like to record trips targeting warm/coolwater species in a separate diary. Other facets of the program remain the same.

As you can see, we are planning to spend a lot of time on Keuka Lake in 2019. The information we collect will be important as we try to understand the changing dynamics of the Keuka Lake fishery and develop a biologically sound plan moving forward. Your cooperation with the diary program continues to provide important information utilized in understanding the current state of the Keuka Lake fishery.

Thank you for your continued cooperation and good luck fishing during the 2019 season.

Good Fishing,

Brad E. Hammers
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Table 1. Summary of 2018 Keuka Lake angler diary trips

Angler	Days Fished	Angler Trips	Angler Hours	Avg Trip (hrs)	Caught				Kept				Legal Salmonids Caught	Hrs to Catch Legal
					LTC	BTC	RTC	LLS	LTK	BTK	RTK	LLS		
271	1	3	12.00	4.00	3	0	0	0	3	0	0	0	3	4.00
355	7	7	10.12	1.45	12	0	0	0	11	0	0	0	12	0.84
371	10	13	31.50	2.50	6	0	0	0	6	0	0	0	6	5.25
386	22	22	34.83	1.58	14	0	0	0	11	0	0	0	12	2.90
435	8	11	16.25	1.56	1	0	0	0	0	0	0	0	1	16.25
446	2	4	16.00	4.00	7	0	0	0	6	0	0	0	6	2.67
447	24	28	58.00	1.99	3	0	0	0	0	0	0	0	3	19.33
462	9	9	13.75	1.53	0	0	0	0	0	0	0	0	0	
481	23	23	32.67	1.42	15	0	0	1	14	0	0	1	16	2.04
486	1	1	3.00	3.00	4	0	0	0	2	0	0	0	2	1.50
487	1	1	5.00	5.00	3	0	0	0	3	0	0	0	3	1.67
511	5	5	13.00	2.60	2	0	0	0	1	0	0	0	2	6.50
526	17	27	47.50	1.74	20	0	0	0	14	0	0	0	20	2.38
547	2	6	35.25	5.88	39	0	0	0	21	0	0	0	39	0.90
565	1	3	20.25	6.75	10	0	0	0	5	0	0	0	7	2.89
595	2	6	35.25	5.88	33	0	0	0	11	0	0	0	32	1.10
699	1	3	21.00	7.00	5	0	0	0	5	0	0	0	5	4.20
702	18	23	56.50	2.24	42	0	0	0	18	0	0	0	41	1.38
705	2	4	7.00	1.75	3	0	0	0	1	0	0	0	3	2.33
713	25	25	50.67	2.03	87	0	0	0	57	0	0	0	75	0.68
714	51	51	96.00	1.88	43	0	0	0	5	0	0	0	43	2.23
721	104	277	1044.75	3.69	723	5	25	9	259	3	18	7	742	1.41
722	6	7	14.75	2.17	5	0	0	0	4	0	0	0	5	2.95
725	6	9	26.00	2.83	17	0	0	0	13	0	0	0	16	1.63
730	3	5	10.00	2.00	1	0	0	0	0	0	0	0	1	10.00
738	2	2	4.00	2.00	2	0	0	0	0	0	0	0	2	2.00
33	**403**	**648**	**1940.78**	**3.09**	**1175**	**5**	**25**	**10**	**508**	**3**	**18**	**8**	**1162**	**1.67**

Table 1 (cont). Summary of 2018 Keuka Lake angler diary trips

Angler	Days Fished	Angler Trips	Angler Hours	Avg Trip (hrs)	Caught				Kept				Legal Salmonids Caught	Hrs to Catch Legal
					LTC	BTC	RTC	LLS	LTK	BTK	RTK	LLS		
743	18	18	45.75	2.54	20	0	0	0	11	0	0	0	20	2.29
776	14	24	60.50	2.32	8	0	0	0	1	0	0	0	7	8.64
878	6	12	43.00	3.58	8	0	0	0	5	0	0	0	6	7.17
891	2	3	9.00	3.00	4	0	0	0	0	0	0	0	4	2.25
908	6	10	44.50	4.33	24	0	0	0	17	0	0	0	17	2.62
958	3	3	5.00	1.67	4	0	0	0	0	0	0	0	4	1.25
966	1	3	18.00	6.00	7	0	0	0	4	0	0	0	7	2.57
33	**403**	**648**	**1940.78**	**3.09**	**1175**	**5**	**25**	**10**	**508**	**3**	**18**	**8**	**1162**	**1.67**

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

			TOTAL SALMONIDS[1] KEPT				AVE LENGTH OF FISH KEPT (IN.)[2]				AVE WEIGHT OF FISH KEPT (LBS.)[3]					
YEAR	TOTAL FISHING TRIPS	AVE HOURS/ TRIP	LT	RT	BT	LLS	LT	RT	BT	LLS	LT	RT	BT	LLS	# HOURS TO CATCH LEGAL SALMONID[4]	COOPERATORS
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

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