



Oneida Lake Association
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Greetings!

WHAT'S UP?

Time to prepare for Autumn storms and freezeup

As the soft water season comes to an end, lakeside campers and homeowners are asked to ensure that their docks, hoists, and shoreline accoutrements are secured high and dry. Help keep the flotsam and jetsam out of our lake. Get docks, lawnchairs and other 'stuff' upland - well away from flood elevations and spring ice.

The special nuisance Canada goose season is open now, ending September 25. The general duck season on Oneida Lake starts October 5. Boaters are asked to refrain from running too close (w/in 150+ yards) of flocks of ducks (decoys), and hunters setting up in front of camps and houses are reminded to stay below/off the high water mark unless they have permission from the adjoining landowner. It is illegal for a hunter to shoot toward land, and it is illegal for non-hunters to harass lawfully set up waterfowlers.

WATCH YOUR LOCAL MEDIA FOR FAMILY EVENTS to be held SEPTEMBER 28

In May 1972, President Richard Nixon signed the first proclamation for National Hunting and Fishing Day, urging "...all citizens to join with outdoor sportsmen in the wise use of our natural resources and in insuring their proper management for the benefit of future generations." New York State is home to thousands of lakes and 70,000 miles of rivers and streams that offer exceptional fishing opportunities.. The upcoming **Free Fishing Days** are **September 28 (National Hunting and Fishing Day)**, and **November 11 (Veterans Day)**.

You have heard them all month in the evening, so this is what a tree frog looks like.

Credit photo to Scott Shupe



Oneida Lake Signs and Kiosks

We sure would like vandals to stop painting our expensive signs. If you know or see reprobates performing such acts, please report them to police.

Credit photo to Scott Shupe

9 Element Plan Status

OLA is still awaiting **NYSDOS's** action on the proposed Oneida Lake **9-Element Plan** (NEP). This plan is important to the future of Oneida lake, and is an important step in the Board's attempt to promote upland conservation measures influencing lake sedimentation. While not a drinking water supply, as are those monied plans of other lakes, the recreational value of our lake is quite significant to not only CNY but the state as whole.

OLA, with its concerns over erosion and sedimentation entering the State's largest inland lake, **urges town and county officials to become and remain vigilant.**

Planning, Zoning, Codes, and Highway department managers should be familiar with the following website. <https://www.dec.ny.gov/chemical/8694.html>

For the lay person, watch at field days and events on National Hunting and Fishing Day for copies of NYSDEC's brand new handout about runoff entering streams after rain storms.

READ THIS AND THINK IF THE LAKE HAS CHANGED ANY.....

These are excerpts from material that OLA Director, Past President Dr. Edward Mills put together when he was at Cornell and represents some points for discussion as used by Nicholas Will at the Oneida Dispatch in May of 2014.

1. Oneida Lake is a remnant of a much larger lake called Lake Iroquois, which was impounded by a glacier at the end of the Pleistocene era approximately 12,500 years ago (Karrow et al. 1961). When the glacier was melting, the level of Lake Iroquois was maintained by an outlet east of present day Rome, NY; consequently, the lake at one time in its geological history flowed into the Mohawk River system. As the glacier receded, drainage shifted westward into the Oswego River system, and the depression that remained was Oneida Lake. The first inhabitants of the Oneida Lake region were probably nomadic paleo-Indian hunters followed by the Archaic Indians

who existed from about 3500 to 1000 B.C. The final period of native culture involved nations of the Iroquois Confederacy including the Oneidas and Onondagas who lived in the Oneida Lake basin (Rayback 1966). The Oneidas called Oneida Lake "Tsrioqui" which meant white water presumably because of its rough white-capping waters. The Oneidas had a fishing village at the mouth of Wood Creek at what is now called Sylvan Beach where there was an annual salmon festival. Fishing was a cornerstone of activity in Oneida Lake at this time and has remained so to present day. An important milestone in the history of Oneida Lake that would eventually impact ecological history of the lake was the construction of the Erie Canal. The original Erie Canal was built in the early 1800s but did not pass through Oneida Lake. In 1916, the Erie Canal was diverted through the lake and became the New York Erie Barge Canal, resulting in a new connection between the Great Lakes and the Atlantic Ocean via the Oswego River. The opening of the Erie Barge Canal now provided a conduit through which non-native organisms could enter and become established in Oneida Lake's waters.

2. Nuisance blooms of algae, particularly common in the 1940s through the 1960s, prompted scientists to focus on phosphorus as a nutrient controlling algal abundance (Mills and Holeck 2001). Early efforts to reduce phosphorus loading to Oneida Lake began in the early 1970s and were linked to a water quality agreement between the United States and Canada that set target levels for phosphorus in offshore waters of each of the Great Lakes including Lake Ontario.

Since Oneida Lake's watershed was part of the Lake Ontario watershed, government funding to upgrade existing sewage treatment plants and to construct new ones became available. Consequently, millions of dollars were spent to reduce point-source phosphorus loading to Oneida Lake. In 1973, New York State banned the use of phosphorus in household detergents, further reducing phosphorus contributions to the lake. In addition, proper land management practices to reduce phosphorus losses were encouraged on agricultural lands in the Oneida Lake watershed. The success of these efforts to reduce phosphorus levels in Oneida Lake became evident by the late 1980s. At this time total phosphorus concentrations were reduced by nearly one-half of what they were in the late 1970s.

3. Early ecological studies conducted in Oneida Lake examined the benthic (bottom dwelling) community and its connection with the fishery (Adams and Hankinson 1916; Baker 1916, 1918). Baker's work in Lower South Bay is among the earliest quantitative studies of freshwater macroinvertebrates in North America. Baker found the molluscan fauna to be rich in both numbers of individuals and species. Harman and Forney (1970) revisited Baker's sites in 1967 and 1968 and found molluscan species richness was reduced by 15%. The decline in species richness was associated with the introduction of the faucet snail, *Bithynia tentaculata*. Species richness has been further reduced by 31% since 1968 with invasion of Oneida Lake by the zebra mussel (Harman 2000) and extinction of three unionid clam species; species richness of Oneida Lake's molluscan fauna has declined by 42% since 1917. Loss of biodiversity as evidenced in Oneida Lake is also a problem in terrestrial and aquatic systems worldwide. Such losses in Oneida Lake cannot be tied to chemical pollution from the watershed but are reflective of the impacts of exotic species introductions. A dramatic biological event occurred in the 1960s in the benthic invertebrate community that reflected degraded water quality conditions. Prior to the mid-1960s, the mayfly (commonly referred to as eel fly) was the dominant benthic organism (that emerged from Oneida Lake in vast numbers in the springtime and was an important food for fish like walleye. Densities of *Hexagenia* began to decline in 1959 (Jacobsen 1966) and the last mayfly was observed in the lake in 1968 (Clady and Hutchinson 1976). Coincident with the mayfly decline were widespread oxygen shortages that may have contributed to the decline of this important organism. However, low oxygen conditions may have been only one of several factors that led to the demise of the Oneida Lake mayfly including disease and chemicals like DDT and Dieldrin that were later banned from use. Chironomids, organisms more tolerant of low oxygen conditions, increased during the mayfly decline and later became the dominant benthic organism in Oneida Lake. A few large mayflies have been observed in Oneida Lake in the late 1990s but their recovery has likely been impeded by periodic site-specific low oxygen events in late summer and by heavy predation by fish on emergents in the springtime.

4. Throughout recorded history, fish (over 75 species identified in the 20th century) and fishing have played a significant ecological and socio-economic role in Oneida Lake and its surrounding watershed. To early settlers, Oneida Lake was an important water route to the western frontier, and fish provided an important food source (Mills et al. 1987). Before 1800, Native Americans took large numbers of Atlantic salmon and American eels. Eels remained abundant and were the most important commercial fish in 1915 (Adams and Hankinson 1916). Cisco were common, and chain pickerel, northern pike, and walleye were the most important piscivorous fish until the early 1900s. Of these predators, the walleye has remained the most abundant (Mills et al. 1987). Cultural changes in Oneida Lake contributed to the increase of the walleye population and the decline of other native species. Atlantic salmon were doomed to early extinction because of lumbering and agricultural practices that degraded tributaries. The decline in American eels followed the construction of locks and dams associated with the Barge Canal that prevented eels from migrating from Lake Ontario to Oneida Lake. The fate of the chain pickerel and northern pike was associated with the draining of the marshes which prevented spawning, and with the construction of the Barge Canal which, through the elimination of natural fluctuations in water levels, caused a decline in shoreline emergent vegetation - prime habitat for these fish. By the 1940s, walleye prospered and became the dominant piscivore. Yellow perch also thrived in association with walleye, and Oneida Lake became known as a walleye-yellow perch lake. In the 1950s, walleye populations exhibited substantial year-to-year variability, and concerns were raised about the sustainability of the fishery. Such high annual variability prompted New York State and Cornell University to conduct studies to monitor populations of both yellow perch and walleye and to assess factors leading to years of high and low recruitment. Since 1957, recruitment has been highly variable for both yellow perch and walleye; peak recruitment years have produced nearly six million yellow perch and nearly one million walleye. Since 1991, however, recruitment of both walleye and yellow perch has been poor....Adult numbers of walleye are currently around 500,000. The walleye decline has been associated with the decline in the fertility of the lake, increased water clarity associated with zebra and quagga mussels, and the rise of the double-crested cormorant.

5. Double-crested cormorants were first observed in Oneida Lake in 1984 and have been shown to have a significant impact on the lake's fishery. Breeding numbers in nearby Lake Ontario were low until the late 1970s due to organochlorine contaminants, particularly DDE, which resulted in severe thinning and breakage of eggshells and reproductive failure (Weseloh 1987). The combination of reduced contaminant levels augmented by good availability of fish and their protected status in both the U.S. and Canada led to dramatic population increases. Since 1984, numbers of cormorants in Oneida Lake have increased significantly, reaching a high of 365 pairs in the year 2000. In early August, migrating cormorants begin to augment the resident Oneida Lake population and their numbers peak around the last week of September and the first week of October. Then, the number of cormorants falls rapidly as the birds begin their migration southward. Approximately 1100 to 1700 migrants visited Oneida Lake in the years prior (1995-1997) to the inception of a USDA/APHIS and NYSDEC hazing program.

Double-crested cormorants have a significant impact on the Oneida Lake fishery. Adults eat up to a pound of fish per day and opportunistically feed on fish species such as walleye and yellow perch. Published studies by VanDeValk et al. (2002) conclude that cormorants harvest as many walleye and yellow perch as anglers. Loss of highly sought after walleye and yellow perch negatively impacts the economy of the Oneida Lake region. Other impacts of double-crested cormorants includes their denuding of vegetation of islands where resident birds nest (such as Wantry Island) and their competition for food and habitat with other colonial nesting birds such as the common tern (an endangered colonial nesting bird in New York State).

6. The Oneida Lake fishery is changing, and some species appear to be thriving while others are resurging. Smallmouth bass populations have been increasing for the last decade, and it is likely that a largemouth bass fishery will soon develop in the lake. Growth of young and sub-adult smallmouth bass has been outstanding, and angling for these fish has increased in recent years. Restoration of lake sturgeon is successful thus far; these fish are fast growing and are utilizing a wide range of

bottom-dwelling prey including zebra mussels and invertebrates (Jackson et al. 2002). Prior to the 1950s, Oneida Lake was the source of most emerald shiners (commonly known as Oneida Lake buckeyes) marketed for bait in New York State. The population collapsed in the early 1950s and commercial harvest was abandoned. A resurgence of native emerald shiners began in 1984 and numbers have been abundant in the 1990s. White perch invaded Oneida from the Mohawk-Hudson river system in the late 1940s and declined to low levels in the late 1960s and early 1970s. A resurgence of white perch with the onset of the 1977 year-class established this non- native fish as one of the dominant fish in Oneida Lake. White perch continue to be a dominant Oneida Lake fish.

The Oneida Lake watershed is at the northern extreme of the range of gizzard shad. This fish was first reported in Oneida Lake in the early 1950s (Dence and Jackson 1959), but was most likely present before that time. Wide oscillations in young shad have been documented in Oneida Lake with population explosions evident in 1954 and 1984. Gizzard shad and yellow perch are a major part of the walleye food base. Gizzard shad acted as a buffer for walleye cannibalism in the 1980s and early 1990s; strong year-classes of walleye occurred in 1987 and 1991 when young yellow perch numbers were low and young gizzard shad were abundant. Oneida Lake is at the northern temperature limit for adult gizzard shad and young are susceptible to die-offs in winter when water temperatures are low; climatic warming events could be an important factor influencing gizzard shad population dynamics in the future.

7. Throughout its recorded history, the fishery has played a significant role. The walleye and yellow perch fisheries have played a prominent role in Oneida Lake's history for nearly a century and we hope that these fisheries are resilient to human impacted environmental changes. No doubt Oneida Lake will abound with fish and the hope is that the fishery will reflect the desire of its stakeholders. Much of the uncertainty of the state of Oneida Lake, however, rests in unwanted "pest organisms", and their impact on the lake's food web. We are only now beginning to grasp the ramifications of zebra mussel induced water clarity events on the Oneida Lake food web. Further, secondary effects of zebra mussels and their facilitation of new invaders like round gobies and disease pathogens await us. We are witnessing biological changes in Oneida Lake that will change the course of its ecological history. Finally, we must expect ecological surprises in Oneida Lake's future as large scale environmental perturbations like global climate warming develop and as stakeholder demand for this resource increases.

The material above is likely more than you wanted but it does give you a sense of how the lake has changed ecologically.

Cleaning up the Lake

OLA Directors again ask for volunteers.

Rain or shine, OLA's semi-annual **HIGHWAY CLEANUP DAY** is Friday September 27. If you are available, please contact OLA Director George Reck at gkger3474@yahoo.com and plan on a 9 AM start.



Meet at the northbound I-81 exit onto Bartell Road. Volunteers and participating Directors will pick up highway trash on the off-ramp and then go to the Park-n-Ride to pick up trash along the angler access boardwalk beneath the I-81 bridge over the Oneida River inlet. Dress in long pants, a hat, sturdy shoes, and bring gloves; OLA will provide bags, hardhats, and safety vests.

Some of you have complained that you want to help with OLA's events, but cannot if we run them on weekdays. The Friday's on which we run weed pulls and trash pickup coincide with our Directors' days off. Feel free to pick up trash on your own, and pull any water chestnut when you see them on your days off.

Remember, a clean watercraft of any type, entering any NYS waterway, is the law!

ATTENTION HIGH SCHOOL TEACHERS

OLA's ENews editors would greatly appreciate your assistance. We would like to add a monthly feature that highlights contributions from your students. Here is an opportunity to integrate your STEM lesson plans with a real-world communication exercise. English, Science, Environmental, and Math classroom and extracurricular club lessons could be re-calibrated to produce student columns that will be seen by a couple thousand ENews readers. If you have thoughts and initiative to induce and produce lake-centric topics such as history, poetry, runoff calculations, regulatory applications, legislation, fishing, swimming, boating, biotic changes, or other topics affecting the lakeside interests, please contact us. **There must be a few talented youngsters in Chittenango, Verona, Central Square, North Syracuse, and Cicero schools who play on Oneida Lake** – and would like to share their stories!

Similarly, if there are **COLLEGE PROFESSORS** from Oswego, Hamilton, Morrisville, ESF, Cornell, MVCC, OCC, LeMoyne, and SU consider using the ENews forum to highlight research – past or future – that has bearing on the lake community.



This is a photo of the craft used by the team from SU-SUNY ES&F last July to perform seismic profiling of the sediments beneath Oneida Lake.

Credit photo to Tom Guifre

Remember that past issues of the OLA ENews are archived on our website, along with many Bulletins. Hard copy of all Bulletins are on the shelves of the Syracuse Onondaga County Public Library.

We are looking for helpers to go to the library and to scan the older issues for posting on our website www.oneidalakeassociation.org and helping us prepare for our 75th anniversary meeting next spring.

MORE HISTORICAL NOTES:

2000 BC – Lamoka Native American Culture entrenched in Oneida Lake region
1615 AD – First white man to see Oneida Lake may have been Samuel Champlain
1789 – Stevens at Brewerton is considered the first resident, then neighbor Dexter in 1790, Smith on Oneida Creek in 1792, and Jackson on Wood Cr. 1795
1794 – Vanderkemp was 1st north shore resident, then Bernhard and Scriba
1816 – NYS law allows drainage of swamps
1823 – Atlantic Salmon noted as still common by Erie Canal advocates exploring a route through Oneida Lake tributaries
1825 – The Erie Canal bypassed Oneida Lake going to Canastota, then in 1835 a side cut was made from Higginsville to Fish Creek.
1846 – First steamboat on the lake

1857 – First legislation passed to protect the fisheries of Oneida Lake
1890 – Anglers Association of Onondaga, formed by sportsmen angered over pollution and piracy of fishes in Oneida Lake, hired game wardens before NYS could fund them
1897 – State hatchery in Constantia dedicated primarily to walleye production
1915 – Adams & Hankinson perform 1st fisheries study for College of Forestry (ES&F)
1916 – NYS Barge Canal ran through the lake by diversion of the Erie Canal between Rome and Higginsville
1932 – *Parasites of Oneida Lake Fishes* published by College of Forestry for the Roosevelt Wildlife Annals
1942 – WWII-induced food shortages resulted in short duration of netting Oneida Lake's fisheries for non-game species
1945 – The Oneida Lake Association was organized and chartered "to restore and preserve the natural resources of Oneida Lake and its environs"
1957 – Dr. Forney starts CBRS's seminal walleye-perch predator-prey study
1962 – Walleye limit reduced from 15/day to 10 daily of any size
1969 - *Sterile Cuckoo* filmed partially at Sylvan Beach, landed Liza Minelli an Oscar nomination
1971 – *Limnology of Oneida Lake with Emphasis on Factors Contributing to Algal Blooms* published by NYSDEC for Phillip Greeson of USGS
1974 – Walleye limit reduced to 5 daily of fish 13" or longer
1984 – Cormorant populations begin to dramatically increase
1990 – Zebra mussels arrive, reaching high densities in 1992
1995 –Lake sturgeon (two-year-olds from Oneida Hatchery) stocked in Oneida lake
2000 – Once prevalent Cisco (Tulibee) gone from Oneida, along with American eels
2000 – Walleye limit is cut from 5 fish daily to 3 over 18" as one consequence of cormorant and zebra mussel changes to the lake ecology
2004 – Walleye size reduced to 15"
2004 - *Management Strategy for Oneida Lake and its Watershed* published identifying soil erosion and sediment reduction as a priority water quality improvement need for Oneida Lake and its watershed
2006 – Quagga mussel arrives, starting to displace zebra mussels
2007 - Oneida Lake website is launched www.oneidalakeassociation.org
199? – Walleye limit is cut from 10 to 3 as one consequence of cormorant and zebra mussel changes to the lake ecology
2013 – OLA Navigation Safety Map is produced and posted to the website
2013 – Round Goby show up, from the same region giving Oneida Lake the zebra and quagga mussels that now infest and America waterways
2016 - *Oneida Lake: Long-term Dynamics of a Managed Ecosystem and Its Fishery* published by AFS [source of some of these dates and events]
2017 – OLA begins ENews electronic monthly newsletter to Members and friends
2017 – OLA hosts Workshop on Nuisance Canada Geese
2019 – 130 pound Lake Sturgeon are found in Oneida Lake

Help OLA prepare for the 2020 75th Anniversary Annual Meeting.

If you have some other significant dates (e.g., when the Sylvan Beach Pier was fenced off, when Parks like Taft Bay, Verona Beach, Chapman Park were created, or when some personality did whatever, etc.) drop us a line.

If any of your co-workers, friends or family complain that they are not getting this ENews series, suggest that they check their spam filters or similar privacy protections.

We put effort into this newsletter for your benefit, but find that only about 50% of the folks who have provided an email for this purpose are actually opening the monthly dispatch.

If you have an avocation and interest in serving OLA, please reach out to one of the Directors. Our contact info is at our website.

Directors serve 2-year terms, meet once a month, and may spend 3-6 hours a month on OLA business.

Each Director must serve on at least one standing committee, volunteer for special events, and anticipate advancement to an officer's position.

The BOD currently has two Director vacancies.

Write out your avocational resume and send it along with a brief note outlining your experience and interests to any OLA Director, or to President@OneidaLakeAssociation.org

Member's **FISHING TIPS.**

Feel free to offer up some of *your* short hints, tips, and tricks.

For now, anglers will struggle as they attempt to lure fish away from the abundant schools of gizzard shad and other baitfish.

MEMBER QUESTIONS?

Remember that many of the frequently asked questions about the lake are posted with responses on the website.

Pay your dues, and HELP PROTECT ONEIDA LAKE!!!!

\$8 annually

Recruit your non-member neighbors and friends TO JOIN US!



Donate

Help OLA function. Memorials and contributions to our program are most welcome.

OLA is a 501(c)4 organization serving protection of the Oneida Lake environment.



[Website](#) [Who We Are](#) [What We Do](#) [How to Help](#)

OLA is a 401(c)(4) not-for-profit organization.

The Oneida Lake Association is a member of the New York State Conservation Council <http://www.nyscc.com/> and the New York State Federation of Lake Associations <http://www.nysfola.org/>.

Report environmental violations. Please remember to obey all laws, rules, regulations, and codes of ethics as they pertain to boating, fishing, hunting, and management of Oneida Lake and its drainage basin. Be civil. **1-844-DEC-ECOS (1-844-332-3267) or 1-800-TIPP DEC (1-800-847-7332)**

Edited by Scott Shupe and John Harmon.

Send us your notes and articles for use in future ENews!