The Oneida Lake Bulletin

Fall 2021

www.oneidalakeassociation.org

Where are the Walleyes?

by John Harmon, OLA President

For the past few issues of the Oneida Lake Association Bulletin, we have had the pleasure of announcing and discussing the great news that our lake now boasts over one million adult walleyes. We even asked you to picture this quantity by imagining a million walleyes lined up fin-to-tail. This line would stretch from the Bridge to the Beach—four times! So why have we heard so much grumbling about how difficult it has been to get fish in the boat? We have heard such reports from weekend anglers as well as seasoned veterans and charter professionals. Yes, of course, there are a number of you who can boast Instagram worthy catches, but that doesn't seem to be a widespread experience.

As always, the OLA looks to the science and data to try to shed some light on the topic. We began by contacting Randy Jackson, Senior Research Associate at the Cornell University Field Station on Shackleton Point. The university researchers track angler catches through their annual creel surveys. Dr. Jackson began by stating, "All gear catches so far are consistent with a walleye population at high density, so I do not think your experiences are attributable to there not being walleye out there." He continued by saying, "Targeted walleye catch rates were down this summer, but still above what we consider to be an excellent fishery. In fact, 2019 was a record-breaking year for catch rates. We were unable to do creel surveys in 2020 due to covid, but I can understand disappointment comparing 2021 to 2019. However, our data indicate a healthy fishery.

"Our data in the past have shown angler catches are much more sensitive to the amount of natural food available than the number of walleye available. It is still too early to use our indices on young perch and goby. All signs indicate that goby densities are as high or higher than we've seen before, and the lake continues to provide a decent number of young perch. In addition, walleye diets have been dominated by mayfly in the last couple of years, a rich source of food that used to shut down fishing back in the day." (See our related article on mayflies on Page 4). Dr. Jackson concluded his thoughts by summarizing, "My guess is that walleye are not hungry, and, therefore, are harder to catch."

Dr. Jackson then turned his attention to smallmouth bass. "Smallmouth bass catches have been down for several years. That may be due in part to most signs indicating a population decline. We do not have enough data to analyze Smallmouth catch rates the way we do walleye. The timing of this decline is roughly consistent with the disease outbreak back in 2017. The decline in catch rate for bass is also consistent with the arrival of gobies into our waters. Largemouth bass, on the other hand, have suffered neither the disease nor population declines." The OLA thanks Dr. Jackson for his continued study of our fishery.

This assessment seems to match the experience of one of Oneida's premier charter captains, OLA Director Tony Buffa. He states "It seems for every good catch, I'm punished the next time out with a not-so-good catch. Yesterday's angler's



OLA member Jerry McDowell finds a beauty aboard Capt. Buffa's charter.

paradise is today's wasteland! We were replete with fish marks yesterday, and, today, not a fish mark on the graph." Captain Buffa offered his own explanation, based on his extensive experience. "Walleyes, much like humans, seek comfort and food. If the environment is less attractive, they move. If the food moves, they move. In the spring of 2021, a scarcity of forage kept the 'eyes moving, and it was difficult to pin them down, day in and day out. I did a lot of hunting to do a little fishing. Then, by mid-June, we were amidst a Mayfly hatch that seemed *(Continued on page 3)*

President's Message

Well, that was some late August flood, wasn't it? I've lived on the lake for over thirty years, and I've only seen water that high one time, back in the early 90s. Of course, it was a challenge for us all. I pulled out thirty feet of my dock with the wood tops, but I kept in 64 feet of aluminum rolling dock. That section remained under water for three days. I tied one corner to my boat hoist and another to my neighbor's hoist. That kept it from rolling in the waves. Depending on the wind direction, the water just crested my seawall, but never touched the lawn, thankfully.

After a few days of sunshine, the water slowly began to recede, at first anxiously slow, and then it swooshed down about eight inches in a single day. Whew!

Now that it's over, I look back on the event with a great sense of pride and thankfulness for all of the acts of neighborliness that I witnessed. First, your Oneida Lake Association kept a close watch on the situation. I fielded numerous calls and emails asking what we are going to do about the water. What can we do to get the lake closed to boat traffic? Of course, the OLA has no jurisdiction over either of those outcomes. Our role, however, was to assist our members by supplying as much helpful information as we can. So we sent out an email to all of our members for whom we have a good address. We alerted them to the situation; we explained that we had been in direct contact with representatives from the Canal Corporation; we provided links to report lake hazards; we requested that boaters respect everyone's property; and we provided phone numbers to receive water level updates. In short, we tried to fulfill our role of pushing out as much helpful information as possible. [Be sure to provide us with your email address so that we can contact you in the future].

Not only did OLA step up to do its part, I witnessed many acts of personal courtesy and kindness throughout the ordeal. For example, early on, the rising waters caught a few neighbors off guard. At least two jetskis went drifting by our docks. We quickly recognized where they belonged and returned them to their owners. On the Saturday following the storm, my neighborhood was buzzing with activity, as a number of shoreline residents scrambled to pull out their docks, move their jetskis closer to shore, and raise their boat hoists, often to their upper limits. There was a spirit of camaraderie and helpfulness throughout the day.

Soon we heard that the law enforcement agencies surrounding the lake closed it down to boat traffic. For the most part, Oneida mariners cooperated. Yes, there were a few defiant boaters who boasted that no one was going to tell them what to do. But here, in the Lower South Bay, it was unusually quiet during the first few days of the ban. There were plenty of folks on the socials posting their updates, and warning others of floating debris that they had spotted. Runaway docks seemed to be quite common, as well as a few untethered boats that made their way around the lake. I heard plenty of stories about how good Samaritans helped retrieve these UFOs (Un-manned Floating Objects). Even Mother Nature seemed apologetically cooperative during the highest reach of the flood. It was sunny for a few days, with very little wind.

On the one windy day that we had, my next-door neighbor was sitting on his deck with friends when they spotted a flare shoot up from Loftus Shoals. He quickly set out in his little Boston Whaler to see what was up. When he arrived on scene, sure enough, it was a couple on a jetski who became stranded due to an intake clogged with seaweed. The stiff winds kept them from paddling back to shore. And, though they came equipped with a flare, neither of them had life jackets! My neighbor fastened on a ski rope and gave them a tow back to solid ground. Waiting for them on shore were some rescue personnel. They were about to head out, but they saw that my neighbor had the situation well under control. Well done!

All in all, though it was a great challenge for all of us, this high-water event brought out the best in us. I know that you, too, witnessed plenty of acts of courteousness, neighborliness, and even bravery. I'd like to think of that as the Oneida Lake Way!

John Harmon

John Harmon, President OLA www.OneidaLakeAssociation.org president@oneidalakeassociation.org

The Oneida Lake Association, Inc. Founded in 1945

The Bulletin is published by the Oneida Lake Association, Inc., so that its members may be informed regarding the activities of the association. The Oneida Lake Association, Inc., was organized in 1945 to restore and preserve the natural resources of Oneida Lake and its environs.

Officers

| President | John Harmon |
|----------------|----------------|
| Vice President | Gina Duggleby |
| Vice President | William Girvan |
| Vice President | Warren Darby |
| Treasurer | Lance Vella |
| Secretary | Gina Duggleby |

Board of Directors

| Terms Expiring April 30, 2022 | |
|-------------------------------|-----------------|
| Patricia Cerro-Reehil | Michael Scanlon |
| Warren Darby | Kurt Snyder |
| John Harmon | Matt Snyder |
| William Lints, Jr. | Lance Vella |

Terms Expiring April 30, 2023

| William Alexander | Rowland Hrywnak |
|-------------------|------------------|
| Ryan Asmus | Dr. Edward Mills |
| Mike Barretta | George Reck |
| Gina Duggleby | Bruce Schantz |
| | |

Terms Expiring April 30, 2024

| Anthony Buffa | William Girvan |
|-------------------|-----------------|
| Richard Colesante | Matt Kazmierski |
| Robert Cote | Greg Keener |
| Carl Ford | Bob Walczyk |

Oneida Lake Bulletin - Your Environmental Voice for Over Seventy-five Years

Walleyes -

(Continued from page 1)

interminable. Consequently, the bite took on a stubbornness that lasted the better part of three weeks." This summary comports well with the findings of the Cornell researchers. Captain Buffa concludes, "Be patient, we will soon be entering the Fall seasonal walleye bite which will make all of us forget the early season frustration."

OLA Director Warren Darby, also a veteran angler, with catches in the hundreds, was more succinct: "The walleye have full bellies. They won't even bite unless they're ticked-off!"

Another colleague at the Cornell Field Station, Research Support Specialist Tony Van De Valk, provided even more data and analysis. He shared the preliminary creel survey results from this year, as well as some anecdotal information that may help paint a clearer picture.

"This year, our creel clerk conducted 523 interviews at three launches during the months of June and July. This approach results in us missing anglers that live on the lake or keep their boats at marinas. Your guess is as good as mine as to how that effects our estimates of catch rate, but if I had to guess, I'd say they likely have more knowledge of the lake and its fisheries, so I bet our reported catch rates are a little lower than what we would report if all anglers had the same likelihood of being interviewed. That's why we conduct whole lake creel surveys every five years, so that we can

To submit questions or comments about *The Bulletin*, contact editor John Harmon at jpharmon1@gmail.com



get a better understanding of the entire angling population. Regardless, anglers averaged 0.27 walleye per hour for all trips for both months. As Randy mentioned, these catch rates are considered to be 'good to very good' relative to other waters in New York State, even without data from anglers that keep their boats on the lake. The harvest rate, which is the one we combine with our estimates of angler effort to estimate total walleye harvest, was only 0.12 and 0.09 fish per hour for the two months respectively.

Harvest rate is almost always lower than catch rate because catch rate includes sublegal fish as well as legal fish that are released. But it's typically closer to the catch rate than what we observed this year, and this disparity is likely due to the factors mentioned above. Our clerk interviewed bass anglers that reported releasing multiple limits of walleye in an outing. We acknowledge recall bias can have an effect on their reported numbers, but these angler-generated data are the best numbers we have to work with.

"Targeted catch rates are typically a better barometer of the fishery. In a lake where most people are targeting walleye, you would expect catch rates for bass based on all trips to be low, and vice versa. This year, walleye were included as a target species in 60% of all interviews, and bass were targeted in 38%. Targeted walleye catch rates were 0.36 and 0.42 fish per hour in June and July, respectively, and smallmouth bass targeted catch rates were 0.47 and 0.37 fish per hour. These are considered excellent catch rates.

"The Board's concerns as I see it have to do with our estimates of the adult walleye population being similar between last year and this year, yet anglers you've been in communication with indicate much lower success rates this year. There are a couple issues that can come into play here. First, as Randy mentioned, angler catch rates on Oneida Lake have as much to do with prey abundance as they do with walleye abundance. As you likely recall from last year, walleye were skinny and, therefore, likely very hungry and easier to catch. Last year's estimates of prey abundance and walleye condition back this up unequivocally. We don't have this year's numbers of prey abundance and walleye condition in yet, but if there are more prey this year, then it makes sense that walleyes are more difficult to catch. That degree of difficulty is dependent on the amount of prey. Walleyes examined during the first half of the summer were feeding heavily on mayflies (see page 4), just like the good old days of the pre-1960s, which likely contributed to lower catch rates early on. We don't yet have a good indication of how this year's hatch of prey fish will affect the rest of the walleye season.

"The other issue we should discuss is this year's estimate of adult walleye abundance. In years that we conduct mark-recapture estimates, we have access to about the best estimate of a fish population one could ask for. We conduct these estimates every three years, so for between years (last year and this year) we rely on our estimates of recruitment and mortality to estimate the population. Both these estimates are much less precise than our mark-recapture estimates which results in less confidence in our adult walleye population estimate. One of the factors that helps determine our estimate of mortality is angler harvest. We get an estimate of angler harvest every year through our creel survey, except last year due to covid. As I said in my presentation at the annual OLA meeting, it was a real shame to not have last year's information because all conditions (high walleye population, low prey fish numbers and covid restrictions that may have led to more people fishing) were right for a huge harvest. So we are left to use previous estimates of angler harvest to predict this year's walleye population."

Although these estimates are the best we have, Van De Valk acknowledged that they likely under-represent last

Oneida Lake Bulletin - Your Environmental Voice for Over Seventy-five Years

2021 Mayfly Hatch

by Scott Shupe, former OLA Director

Hexagenia is the Latin (scientific) name for Oneida Lake's famous mayfly, also known locally as the eel fly. Some anglers are frustrated, while others are rejoicing at their abundance this year. Soft water walleye and perch fishing was tougher than what the hard water anglers experienced last winter. Our summer walleyes ate well, and they got fat. Perch, pickerel and pan fishing also was not robust. Likely they too fed well on mayflies.

Prior to 1970 the mayfly was the most noticeable invertebrate sustaining fish and fowl at critical early summer periods. 1920s photos from Cornell University and the College of Forestry's Roosevelt Wildlife Collection show shoreline windrows of carcasses a foot or more wide and a foot deep! As a kid, I recall dozens of them popping beneath my feet in the grass, and the lee side of camps were simply brown with sheltering adults. In bottom habitats, under ideal conditions (about 3-8 ppm dissolved oxygen and pH ranges of 6-8) perhaps 100 eel flies live in a square yard of lakebed. If you do the math on an 80-square mile lake, you can estimate the staggering number once supported in Oneida Lake-about 20 billion!

First a bit of biology. Adult mayflies live only for about 48 hours and don't have functioning mouths or digestive tracts. Their only goal in life is to mate and lay eggs. But the juvenile mayfly spends two years mucking around in the lakebed, eating detritus to grow, while trying to avoid being fish food. The mayfly requires high dissolved oxygen in the benthic (bottom) muds harboring their eggs and larvae. There is a limnological connection, for dying algae, carcasses, and other organic material settles to the bottom. Generally, lake water temperatures stratify with warmer waters at the surface and colder water at the bottom which prevents oxygen-rich surface water to mix to the bottom. The processes of decay on the bottom – termed Biologic Oxygen Demand – extract the dissolved oxygen from the benthic waters. In Oneida Lake, high wind breaks down this stratification. If calm

weather continues for a month, the bottom waters of Oneida Lake will go anoxic (lacking oxygen).

Living creatures, if motile, can move up or into shallower waters. Others, like the mayfly larvae, suffocate. T. Jacobsen evaluated bottom sediments collected between 1956 and 1964. While chironomid midge populations rose, mayfly numbers plummeted. This was well before the 1972 Federal Water Pollution Control Act, later revised as the Clean Water Act. Oneida, Ontario, Erie and hundreds of other waterways across the country were contaminated by high levels of nutrients as a consequence of industrial, municipal, and human waste disposal. Municipalities were required to install sewage treatment facilities subsequent to the CWA, and phosphorous was banned from detergents in 1973.

Five generations ago, Oneida Lake maintained robust populations of eel, cisco, pike, walleye, perch, and burbot. Such populations were sufficient to support commercial fisheries as well as recreational fisheries, and local industries related to the fishery and health of the lake ecosystem thrived.

Smoking guns of this era include periods of sustained drought in the mid-tolate 1960s, with diminished wave action leading to less frequent water column mixing and therefore exacerbated low dissolved oxygen in the lake. Lakeshore reliance on now outdated (yet still present in some areas) septic systems, and the absence of village wastewater treatment plants on Oneida's tributaries also contributed to the problem. DDT had not been banned during this time, and mosquito spraying with DDT was common around Oneida during this period. Overspray and drift probably affected emerging mayflies.

The demise of the mayfly adversely affected fish food. Remember the days of a ten-walleye limit? This was before mussel-induced water clarity that made fry more vulnerable and before the white perch invasion that introduced a new fry predator to the lake. But then the perchwalleye relationship numbers changed. Without abundant mayflies to feed all species and sizes of fish during the June-July period, big fish now ate more little fish.

Oneida Lake's total phosphorous level declined precipitously between 1961-67 (130-210 ug/L) and 1975 (~50 ug/L), showing a further significant downward trend by 1987. Current Total Phosphorus levels of 20-30 mg/l are half the concentration of the early 1970s. While dissolved oxygen in bottom waters showed no statistically significant trend during this period, following the zebra mussel invasion of the 1990s, dissolved oxygen has increased. The current suite of regulations has curtailed chemical and physical pollutants, but no such effort has retarded biologic pollutants. Finally, however, Nature has found a way to reintroduce the mayflies. If no invasive or climatic change occurs, their numbers may actually grow.

Perhaps the invasive mussels enhanced water quality and dissolved oxygen concentrations supported the survivability of the mayflies. But what about our latest invader? The researchers at Cormell Biological Station are evaluating the goby-mayfly relationship. Gobies do feed on these mayflies and with the high abundance of gobies in the lake in recent years, we may expect a decline, rather than an increase in mayflies. It may be that the burrowing behavior of mayflies makes them less susceptible to goby predation, even though the increase in gobies have resulted in declines in many other benthic invertebrates as well as in mussels. The Cornell Biological Field Station is exploring these interactions with experiments and analysis of the long-term data sets

(Continued on page 5)

Mayfly Hatch -

(Continued from page 4)

from Oneida Lake. Cornell is also evaluating the effect of changes in mayflies on diet and growths of important fish species in the lake, as well as the effect of the new invader, the spiny water flea, a predator on native zooplankton.

Lars Rudstam, director of the Cornell Biological Field Station at Shackelton Point and professor of natural resources, adds: The increase in mayflies is very interesting and represents a new phase in Oneida Lake. Cornell is evaluating why this increase is occurring at this time. We are looking at the importance of low oxygen levels, round goby predation and declines in quagga mussels as possible direct or indirect effects that could explain the resurgence of mayflies. Experiments by our intern Christian Baran in summer of 2021 showed that round goby feed on mayfly larvae, but the effect of the presence of quagga mussels was inconclusive. Quagga mussels could provide refuge from round goby predation or compete with mayfly larvae for food. Perhaps the current lower quagga mussel numbers are at levels where both dead shells and live mussels are protecting mayfly larvae without serious competition for food resources. This work will continue this winter and next summer.

Mayflies also provide alternative food for walleye, perch and white perch during the vulnerable period when young of these species are present in the water column (June and July). We are investigating whether survival of young fish has increase as a result of the abundant mayfly hatch at that time, and whether the diet of larger fish now includes more mayflies. Cornell is also evaluating the effect of declining quagga mussel populations on the ecosystem as a whole, as well as the increase in spiny water fleas that provide both prey for fish and are themselves predators on zooplankton.

The round goby is another important change in the lake that affects the whole ecosystem. Round goby act as prey for the major predatory fishes and cormorants, as vectors of chemical contaminants, and as predators on bottom invertebrates. Preliminary data suggest that gobies are consumed by both walleye and perch, and that their presence does not increase biomagnification of contaminants. The data also suggest that they cause declines in bottom invertebrates, and that they cause declines in other small bottom fish. Stay tuned for more information.

BSJFOL

by Bill Girvan, Past President of the OLA

Over the years Oneida Lake has been a very positive and important part of many lives and families in so many ways. Numerous members of the Oneida Lake Association can attest to the good life our wonderful lake has provided. One very interesting story is of an OLA member whose lifestyle focused on his fishing experiences during his life span which fell just three weeks short of 94. When you spend a lot of time fishing on your favorite body of water, getting all that fresh air and fun, sharing time in your boat with your good friends and family, plus eating lots of tasty Walleye and Yellow Perch fillets, that is a healthy lifestyle! Such was the case for Edward Joseph Leskoske of Syracuse.

You have to really admire an angler who owned his own fishing boat, motor, and trailer before he ever owned a car! He knew that if he had his boat, then all of his friends would have to drive over and pick him to go fishing. Back in those, days prior to World War 2, not many anglers around Oneida Lake owned their own boat.

As most of us know there are some very gifted anglers that are very focused and seem to catch fish more consistently than others. As Ed's son John stated, his dad had the touch and patience, and he knew how to catch fish. It didn't really matter what he used or where he was sitting in his boat. Ed's favorite lures were 1/4 oz. White or Black Buck Tail Jigs. Sometimes he would switch to a Brown Jig. He like to finesse the fish by imparting action into his slower presentations. He had the feel! Walleye were his favorite species to target, followed close by Yellow Perch. Although he also enjoyed catching Smallmouth Bass, he didn't spend as much time trying to catch them.

Ed was one of many Oneida Lake anglers of his era to use a calendar to log in all of his fishing entries. This interest-



Edward Joseph Leskoske

ing practice allowed him to have accurate records of his catches, weather conditions, and other anglers in his boat that day. Also, his Calendar Logs allowed him to make comparisons weekly, monthly, and year-to-year. It also helped build up

(Continued on page 6)

BSJFOL—

(*Continued from page 5*)

his confidence, providing data that gave him a very good idea about what was happening with fish populations on the lake. Those Fishing Calendar Logs also were great teaching tools that he shared with his children as he passed on his fishing knowledge and passion.

Another skill passed on to his children was how to fillet fish. The total fishing experience was a family leisure activity for everyone in the Leskoke family. All the fish cleaning and filleting was handled by Ed's children. His wife Kathleen was the chef who cooked up all those tasty fish.

Everyone enjoyed eating their fair share of Oneida Lake Walleye and Yellow Perch. These feasts happened quite often as numerous fishing trips took place both in Ed's boat and also during the winter's ice fishing season. He used a combination of tip-ups and jigging with a Swedish Pimple tipped with a Perch Eye. His biggest Walleye ever caught at Oneida Lake was 271/2" which is a true trophy from his favorite body of water. What a fantastic legacy!

Fishing on Oneida Lake was a positive lifestyle for Ed. He was proud that he was a longtime member of the Oneida Lake Association. Although the OLA knew him as Ed, he had a nickname that he truly loved, "Bull Sh*t Jake from Oneida Lake," or BSJFOL. When he passed away three weeks before turning 94, he was buried in his jacket with his nickname "BSJFOL" embroidered on his chest area. During the last few years of his life Ed was no longer able to make it out on the lake to fish, but his sons would stop by with their catches to show their Dad and fill him in on that day's trip, keeping him in in the loop.

OLA Member Edward Leskoske lived a great life, spending a major part of it fishing on Oneida Lake. His family and fishing buddies always looked up to him. Even today his children have many fond memories of their Dad, BSJFOL. Special thanks goes out to Ed's son, John, for sharing his father's life with us.

Please read below for some of John Lesokske's first-hand memories of his legendary father.

Fishermen's Mass

My dad used to tell me about going to the Fishermen's Mass at Assumption Church down on Salina Street. The

mass started at 5 a.m. and was over at 5:30 a.m., because the priest knew the men and boys attending were anxious to catch the early trolley out to the lake. It also might have been because the priest was a fisherman as well! Right after church my grandfather, Fred Leskoske would give dad a nickel or maybe a dime and off he would run to the corner store to buy penny candy, and if he got a dime he'd have enough for a box of Cracker Jacks.

Buoy 123

One time my brother Tommy, my mom and dad, and I were fishing for perch down at Buoy 123 on Oneida Lake. I was about 8 years old so the year would be 1960. It was a beautiful summer day, not much wind and the perch were biting. Dad had the wire basket over the side, and it was almost full so we really did not need any more fish. The bite slowed down a bit so Tommy got the long handle landing net and put it down into the water in back by the transom. The water was very clear, and you could see a school of perch circling. Of course, they scattered when the net came down, but Tommy said, "wait...just wait... they'll be back." Sure enough, the perch did come back and weren't bothered by the net. Tommy stood up and swooped the net towards the surface and there were three huge jack perch in the net. Mom told Tommy to let the fish go but dad said, "No he caught them; he should keep them." Mom gave dad the "look" but dad



persisted, and the three perch went into the almost full wire basket. Although Tommy netted some more perch, mom insisted he let them go. I learned something that day from my big brother– patience. Something everyone needs and something I will be ever grateful for.

World Series at the Yacht Club

I remember the time

dad and I went fishing in October 1964. We listened to the World Series on his transistor radio while we fished. Dad was a life-long Yankees fan, and that day the Cardinals had Bob Gibson pitching. He said his team was in trouble since Gibson was a "hurler" and the Yankees had trouble hitting against him. The afternoon was sunny and warm, and the perch were biting. We were throwing a black bucktail jigs on about a six-foot leader. Tied above the jig were two maroon hackle files, each on its own 18-inch line. It was a chore to cast but it was worth it because when the perch saw it, Bang! Wow, that was fun! Although we caught plenty of perch that day, much to my dad's chagrin the Yankees lost, 5 to 7 and Gibson pitched the whole game. Dad was disappointed, but I recall him saying "That's ok, since that guy Gibson pitched one hell of a game." I also think some of the sting of the loss was tempered by all the perch we caught.

Switch places?

I remember dad fishing in the front of the boat and his buddy of 60 years, Gordon McIntyre, fishing in the back. Dad would be catching, and Mac wouldn't be doing anything. Dad would say, "Hey Mac, you want to switch places? There seems to be more fish up here." Every now and then Mac would take the bait and switch places. Once in the back of the boat, dad would cast once or twice and ... Bang! he would have a fish on. Then he'd laugh like a son of a gun.

The Ecological Rhythms of Oneida Lake

by Alexandra Mantilla

Have you noticed that the hottest days of summer bring along with them the accumulation of seaweed along the shores of Oneida Lake with its pungent smell permeating the air? And the way in which the temperature drops as summer merges into fall and with it, the walleye emerge at the shores following the baitfish seeking warmer waters? These are just two examples of seasonal observations from local community members of Oneida Lake. We can use observations such as these to inform and build an Ecological Calendar.

Professor Kassam's Research Group of Cornell University, in conjunction with The Cornell Biological Field Station at Shackleton Point, has been collaborating with the Oneida Lake community since 2015 to build a better understanding of the ecological relations that people have with the Oneida Lake Watershed. We are researching how people utilize the environment for subsistence, recreation, and other activities to better navigate anticipated ecological changes through the use of an Ecological Calendar.

Ecological Calendars are a system of keeping track of time through the observation of seasonal and environmental shifts in our surrounding habitat. Indicators such as the opening of a flower, the emergence of an insect, the arrival of a migratory bird, the breakup of ice in rivers and lakes, or the position of stars

a migratory bird, the breakup of ice in sali rivers and lakes, or the position of stars men

Cornell students Alexandra Mantilla and Hayley Tessler assisting with field data collection on Oneida Lake.

in the sky can help situate us in time and let us know when to conduct a certain activity. Such activities include when it is time to start fishing for walleye, time to start foraging for certain mushrooms, or when it is safe to begin ice fishing.

This past summer, my research focused on the angling community because of the lake's rapidly changing ecology, projected increase in water temperature, and the lake's role as a highly valuable resource for food and recreation to those living in the watershed. I interviewed a total of 20 community members ranging from charter captains, bait and tackle shop owners, competitive tournament anglers, NYS DEC Employees, OLA members, and recreational anglers. Individuals responded to questions surrounding their experiences fishing on Oneida Lake as it related to their area of interest and expertise. For example, ice fishermen were asked about the indicators they might use when deciding when it is safe to go out on the ice, while competitive bass fishermen were asked questions about how they prepare for tournaments. The majority of participants had lived on the lake for 20+ years and had been fishing since childhood.

In the next step of the research, I plan to conduct a more thorough analysis of the data during this fall semester. Some salient points that were mentioned numerous times in interviews included the

> shortening and unpredictability of the ice season. Participants also mentioned that they observed greater fish populations, but the fish themselves have been smaller in size on average compared to the past

> The use of certain plant species, such as milfoil and lily pads, were popular among bass fisherman to predict locations for fishing sites. Water temperature was a key indicator



Alexandra Mantilla and Hayley Tessler assisting with fish sampling at the Cornell Biological Field Station.

for all fishermen to determine where fish would be and at what time of the year. A handful of people relied on community interactions, whether through Facebook groups, local bait and tackle shops, or neighbors to gather information on daily lake conditions, fishing tips, and general observations.

As the research continues into the fall, the goal is to further investigate the indicators that were frequently mentioned using scientific data. From these data, I will construct an ecological calendar that will later be verified and edited by the original participants of the study. The calendar will then serve as a community resource that is ever-changing in synchrony with the environment and the community it serves. The hope is that the calendar can be used as a resource in schools and other educational spaces for people of all ages to learn about the Oneida Lake Watershed.

Oneida Lake has already experienced many ecological changes including the introduction of round gobies, zebra and quagga mussels, and it will continue to do so as we live in a time of increasing climatic variation. It is important that we preserve the knowledge that is held among the people of Oneida Lake to better understand and adapt to the environmental shifts that are to come in the near future.

Alexandra Mantilla is a sophomore at Cornell University studying International Agriculture and Rural Development.

Oneida Lake: A Place to Call Home

By Drs. Jennifer Arnold and Stephen Oswald

Oneida Lake is a place to call home for people, fish, and wildlife. Its productive waters have been monitored by scientists from Cornell University for over 60 years, making this lake one of the best characterized waters in the world.

One aspect of this work is the longterm monitoring and research on the Common Tern: a small waterbird that migrates from Peru each year to breed on Oneida Lake. Despite their name, Common Terns are disappearing in inland North America. They are listed as Threatened or Endangered throughout the Great Lakes region. Oneida Lake is one of the key sites where this bird is still holding its ground.

Common Terns are known to have nested on Oneida Lake since the first records made in the late 1920s. Historical data indicate around 300 nests were regularly laid at Oneida Lake in the 1930s. Since the 1970s, Cornell University has conducted annual monitoring and research on Oneida Lake's terns, most recently led by Dr. Milo Richmond, until his retirement, and then by Dr. Paul Curtis. Over the last four years, our research team from Penn State University has collaborated on this DEC-funded project



with Paul Curtis, to bring insights from research on Common Terns elsewhere in North America.

Nesting numbers of terns on Oneida Lake increased in the mid-1980s and have fluctuated to around 400 pairs for almost 50 years. The past decade, however, has proved challenging for Oneida Lake's terns because the islands on which they nest have been progressively eroded and occupied by other waterbirds.



For the first time in recorded history, they successfully bred in large numbers at Willard Island.

In 2021, terns hedged their bets by nesting on two islands. For the first time in recorded history, they successfully bred in large numbers at Willard Island. They also nested on their traditional island, Little Island, but with a lot of pressure from nesting gulls. Terns at this site were skittish and slow to settle in until the gulls finally gave up in mid-June. By then, however, most terns were successfully established on Willard Island instead. Willard poses several challenges for nesting. It is prone to over-wash during summer storms and is composed of mussel shells with no vegetation, which leaves any hatchlings exposed to the elements. Fortunately, we were able to provide wooden shelters that the chicks instantly took to, reducing their vulnerability.

Despite these challenges, terns did quite well, fledging nearly 300 chicks on Willard in 2021. Birds at Little Island met with less success when a Black-crowned Night Heron began visiting the colony and predating eggs and chicks. Even so, close to 75 chicks fledged. The large number of fledglings from these two islands

mark a great success for terns on Oneida Lake following several years of very poor productivity due to storms and predation. This summer, you may have noticed fenced enclosures on each island and colored rocks marking nests. Combined with regular island visits, these devices allowed us to obtain a detailed measure of success for individual nests as well as an understanding of the factors driving it. This information revealed that, despite the many chicks fledged, average reproductive success per nest was below that needed to maintain regional populations in the long term. It also highlighted the impact that nesting density, heat, storms, and predators have on this important breeding population. Moving forward, we are also interested in the role terns play within the lake ecosystem, their diet, their movements within the lake, and the areas they use for feeding.

This information will help us to hone ongoing management to keep Oneida Lake a place where birds, people and other wildlife can continue to call home.

OLA 75th +1 Annual Meeting: Impressions

By OLA Director Tony Buffa

On Wednesday, April 28, the day that your board of directors of the Oneida Lake Association chose to hold its 76th annual meeting via ZOOM and simulcasted on YouTube, will forever be etched in my memory as a seminal and historic moment for all involved (planners, presenters, zoomers and viewers). We now have a presence on YouTube that has served as a medium to deliver our Annual Meeting message in perpetuity. I am proud and honored to be a forty-plus year director of this organization, which over its existence has served to keep the public, its members, elected officials, law enforcement, DEC and affiliated Oneida Lake researchers apprised of any environmental concerns that have implications both good or bad for the lake's wellbeing.

None of us can predict with certainty the path that the current Coronavirus Delta Variant will take. Rest assured that the OLA will never again cancel an Annual Meeting. Thanks to social media, technology, and the OLA Board's willingness to learn and participate in disseminating information via the digital aqueduct, we are now all connected, if not proximately then at least remotely.

Kid's Corner

The Many Shades of White!

You probably already know that many animals rely on their color to safely blend in with their surroundings. This is called camouflage. Brown mice, spotted fawns (young deer), striped snakes, and grey squirrels all use their color to hide from danger.

Many birds, however, take a different approach. For example, many of the birds who live on Oneida Lake prefer the color white!

How many of these white birds can you spot before they begin to fly south for the winter? Try using the checklist below. Write to us and let us know how many of these white birds you spotted. Tell us your favorite! **president@oneidalakeassociation.org**



Terns

Terns are small, graceful birds who swoop over the

lake looking for small fish. They quickly dive to grab a fish that happens to be near the surface. Look for a bright white body and an orange beak.



Egrets

These bright white birds are always a special sight! Look for long

legs and a long, sharply pointed beak. You will see them wading in shallow water, gracefully tip-toeing as they look for fish.



Herring Gulls

These gulls are one of the most common birds

on the lake. They eat . . . just about anything! Their diet includes fish, frogs, eggs, and almost any food that people leave behind. Look for a large bird that often hunts in groups. Fun fact: Gulls often get whiter as they grow older. So the grayish, brownish ones are young, while the bright white ones are the adults.

Walleyes -

(Continued from page 3)

year's harvest, which would result in an over-estimate of this year's population. Van De Valk concluded, "It's possible that the walleye population this year is lower than what we predicted, and that disparity would be largely dependent on how much higher the walleye harvest last year was than previous years, which we have no way of knowing. Fortunately, we have another mark-recapture estimate scheduled for next year that should shed some light on the effects of harvest this year and last year, which should keep us on track in our efforts to monitor the adult walleye population."

Once again, we are fortunate to fish on a lake that receives so much research and monitoring. The OLA thanks these researchers for sharing their data. More importantly, we are pleased to pass that information on to our members. Regardless of your catch rate, your Board of Directors wishes you a safe and enjoyable time on the water!



Swans



These beautiful birds are another Oneida Lake favorite. Can you tell the difference between a Trumpeter Swan and a Mute Swan?

Both are beautiful birds. Mute swans have a curved neck and an orange beak. Trumpeter Swans have a straight neck and a black beak.



Bald Eagle

Although this is not a white bird, it is a very

special find on our lake. It does have a bright white head, so it sort of fits in this group. If you think you spot one, make sure that there is no white on its belly or its wings. If you see white there, it's probably an osprey. Fun fact: Bald Eagles don't get their white head until they are five years old!

Oneida Lake Bulletin - Your Environmental Voice for Over Seventy-five Years



Located in

43 North Marina

32 Weber Rd, Central Square, NY 13036

We are now a sailing and kayaking store focusing on

sales, service and rentals







We rent Hobie Mirage kayaks, Eclipses and Standup paddleboards by the hour, 4-hours, 24 hours, weekend and week





The Oneida Lake Association thanks Borio's Restaurant for its many years of wonderful service on the lake. Great food. Great view. And a Great Family. We wish you the best!



REPORT TAGGED STURGEON

Sturgeon in Oneida Lake and nearby waters may be tagged. Biologists at Cornell University and NYSDEC need your help to track these fish. Yellow tags may be attached at the base of the dorsal fin. If you catch a tagged sturgeon, please write down the number on the tag and length of fish, release the fish immediately, and call Cornell University at (315) 633-9243 or contact NYSDEC at (315) 785-2262 as soon as possible.





Capt. Tony Buffa's Fishing Charters Lake Ontario, Oswego, NY Oneida Lake, Lakeport, NY





Salmon, Trout, Walleye & Bass Boats: 31' PennYan & 28' Offshore Email: capntony@twcny.rr.com www.captaintonybuffafishingcharters.com April through November Call for reservations (315) 427-2278





Please support our advertisers!

Oneida Lake Bulletin - Your Environmental Voice for Over Seventy-five Years





Please Support Your Advertisers