

# Highlights from the 2025 Profile

## Historical Depth Meets Modern Insight

From the Atlantic salmon runs once harvested by Indigenous Haudenosaunee nations to the bustling canal and resort era of the 19th century, Oneida Lake's human story is intertwined with its ecological one.

Postwar development, canal construction, and damming transformed the shoreline and altered the lake's hydrology, setting the stage for the challenges — and research — that define today's lake.



Photo courtesy of Peter Rompf

## A Changing Ecosystem: Climate, Clarity and Competition

**Climate Impacts:** Since 1975, summer water temperature has risen by 4°F, while winter ice cover has shortened by about 30 days. These changes affect everything from oxygen levels to fish behavior.

**Water Clarity and Nutrients:** Oneida Lake has always been a shallow, highly-productive lake. French voyagers called it “le lac vert,” or the green lake. Water clarity has greatly improved since the 1980s due to phosphorus control and filter feeding by non-native zebra and quagga mussels.

**Invasive vs. Native Species:** Invasive zebra and quagga mussels, round goby and spiny water flea have reshaped the food web, while native mayfly resurgence may lead to better survival of both young walleye and yellow perch.



Photo courtesy of Ralph Wakeman

## Fisheries: From Historic Lows to Highs

Walleye and yellow perch anchor the lake's reputation as a premier fishing destination.

**Walleye:** Reduced to historic lows, their population rebounded due to the combination of stocking programs, creel limits, and cormorant control. This top predator is a favorite of fishermen year-round.

**Yellow Perch:** This is the most abundant fish, with a population that has increased after decades of fluctuating numbers. Young yellow perch provide food for predators while adult perch provide another great fishery, especially for ice fishermen.

**Bass and Sturgeon:** Interest in bass fishing has increased in recent decades, and lake sturgeon — once nearly extirpated — are growing larger, more numerous, and naturally reproducing, thanks to a 30-year restoration effort.

## Birds, Wetlands and Watershed Health

Birds, like bald eagles, ospreys, and threatened common terns, nest on the mainland and protected islands. Wetlands, like Cicero Swamp to the south, the Toad Harbor – Big Bay area to the northwest, and the Sylvan Beach area to the east, act as natural filters and buffers — though development continues to threaten these vital zones.

Water level regulation, nutrient runoff, and increased urbanization — particularly around growing communities like Cicero — continue to shape the watershed's health and welfare.

## Why This Matters Now

Oneida Lake is more than a recreation spot or research site — it's a bellwether for freshwater ecosystems globally. With its mix of native and non-native species, shifting climate, and intensive monitoring, the lake reveals how lakes elsewhere may evolve under similar pressures.

Situated in Central New York, this 80-square-mile lake draws anglers, boaters, scientists and conservationists alike — each captivated by its rich history, ecological complexity and evolving story.

As New York prepares for new economic and environmental realities — including large-scale development projects like the Clay microchip plant — the fate of Oneida Lake depends on sound stewardship and informed public engagement.



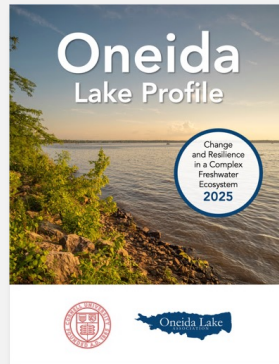
Photo courtesy of Richard Colesante

## Dive Deeper: Get the Full Report

The full 2025 Oneida Lake Profile is an essential read for:

- **Anglers and Outdoor Enthusiasts:** Discover how fish populations are managed and what the future holds for your favorite catch.
- **Educators and Students:** Explore a real-world case study in limnology, climate science, and conservation.
- **Policy Makers and Planners:** Understand the implications of land use, development, and water management on a critical natural resource.
- **Environmental Advocates and Citizens:** Learn what's at stake — and how you can help protect this irreplaceable lake.

The 2025 Oneida Lake Profile, jointly produced by the Cornell Biological Field Station (CBFS) and the Oneida Lake Association (OLA), is both a celebration of scientific progress and a reminder of ongoing environmental challenges. This updated report chronicles decades of research and change, from ancient glaciers to the latest invaders altering the food web.



Support the stewardship of Oneida Lake.

Led by a dedicated board of directors, the OLA works collaboratively with numerous partner organizations, including the CBFS, to protect the fisheries, wildlife and natural resources of Oneida Lake.

Let's ensure this extraordinary lake thrives for another 70 years — and beyond.

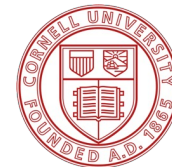
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Photo courtesy of Kate Chick Anyon



For 70 years, Oneida Lake has served as a natural observatory for one of the world's most comprehensive freshwater ecosystem studies.

Change | Resilience | Stewardship