ADIRONDACK LIFE

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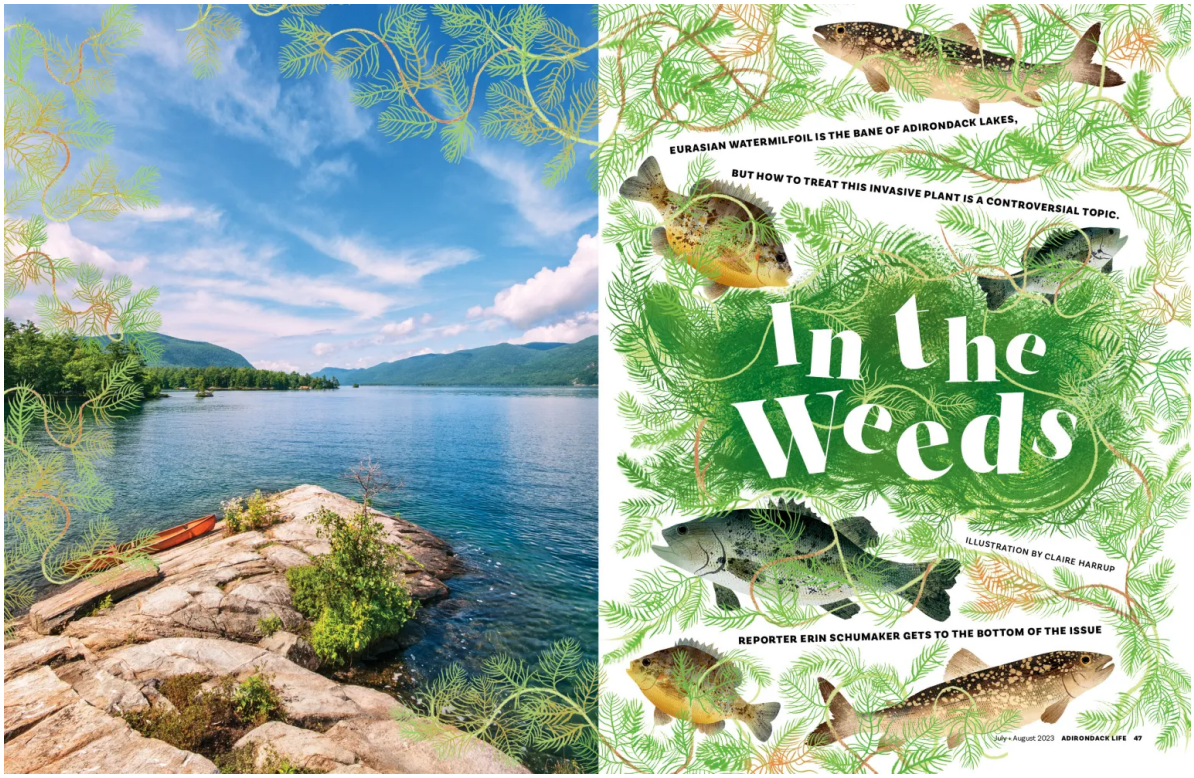
# In the Weeds: The Fight Against Eurasian Watermilfoil

*by Erin Schumaker | August 2023, Nature and Environment*




Photograph by Carl Heilman II; illustration by Claire Harrup

Huletts Landing, Lake George. Clear water laps at the docks as I wait for Tom Conrad, owner of Huletts Landing Marina. The trees are bare and there are pockets of snow in certain shadowy corners, but it's sunny and unseasonably warm for April in the Adirondacks. Save a lone fishing boat that drifts by with its motor off, the lake is empty. From the edge of the dock, I can see

straight to the sandy bottom. As Conrad drives around the lake, he describes a spring night he spent watching smelt run under a full moon in his early 20s. He was so taken that he moved to Huletts Landing full time. We stop to watch a dark cloud of the tiny fish running through a stream near his house, where he lives with his young family.

He points to the other side of the marina, which faces the bay. It's murkier on this side and while I don't dip my feet into the freezing water, the bottom looks squishy, even slimy. "By the fall this will all be grown in," Conrad says, gesturing to his corner of the bay.

The spring thaw also brings warmer waters, which happen to be the preferred habitat of an invasive aquatic species that's sparked a vigorous debate on Lake George. It's pitted lake protection organizations against one another and fueled a lawsuit against the state-appointed Adirondack Park Agency (APA) over how to handle it.

The culprit behind the drama: Eurasian watermilfoil.

We all want to protect our lakes. But who gets to decide how we do it?

Like any good story, the facts depend on who you ask, but in my telling, this one starts with Dave Wick, of the Lake George Park Commission.

Wick thought he'd found a promising solution to Lake George's Eurasian milfoil problem, which was getting so bad in some areas that tried-and-true methods such as hand-harvesting were no longer working. Lakes in New Hampshire, as well as nearby Minerva Lake, had seen success with ProcellaCOR, an herbicide approved by the EPA in 2017 and by the New York Department of Environmental Conservation in 2019 that mimics plant hormones to target milfoil, and Wick wanted to give it a try.

"We spent so much time and money beating back all of these sites," Wick says. "People will say, 'Milfoil isn't a problem on Lake George, I never see it.' That's because we spend a half a million dollars every year on it."

He jumped through the required hoops, he says, and got approval from the APA, but before long found himself on the wrong side of the Lake George Association and Waterkeeper Chris Navitsky, whose missions, like Wick's, include protecting the lake.

The Lake George Association and Navitsky were so concerned about the plan, about unforeseen harm to the lake's ecology and what they felt were unanswered questions about the potential impact of the herbicide, that they sued the APA to block it. A State Supreme Court Justice ruled in their favor in March, finding that the APA had acted "arbitrarily and capriciously" by not holding a public hearing before approving the use of ProcellaCOR.

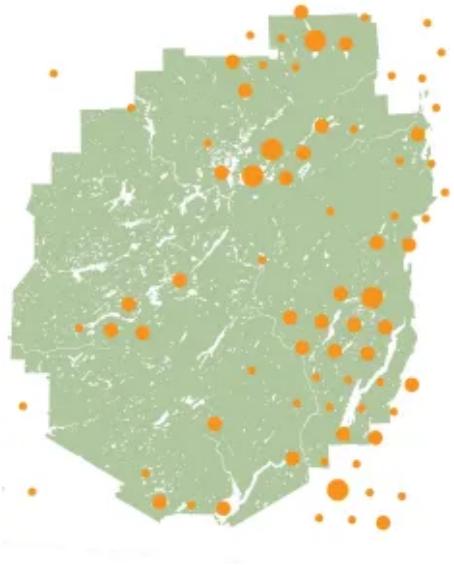
The battle in the courts hinges on procedure and transparency, but the discussions playing out in camps and town halls across the park—far beyond Lake George—may be more relevant to

how Adirondack residents perceive the problem, and ultimately envision solutions to it.

**Eurasian Milfoil Versus the Adirondack Park**

Eurasian watermilfoil is thought to have entered the US on a ship ballast more than half a century ago and has been the bane of the Adirondacks since it was first reported here in 1979.

Since then, it has spread to at least 65 other water bodies in the park and every year it spreads to a few more, according to the Adirondack Park Invasive Plant Program (APIPP), which surveys lakes in the park for invasive species.



Eurasian watermilfoil data from www.imapinvasives.org. The larger the circle, the more confirmed observations.

“It looks like a feather,” says Brian Greene, aquatic invasive species coordinator at APIPP, when I confessed that despite swimming in Lake George every summer for as long as I could remember, I wasn’t sure if I’d ever seen milfoil.

While the Adirondacks has native weeds, including native milfoil species, Eurasian milfoil can be recognized by its distinct clusters of four feathery leaves whirled around a pink or reddish stem, and blunt leaf tips that look like their edges are cut. In late summer, when milfoil flowers, pink buds sometimes poke out above the waterline.

Nonnative plants and animals aren’t inherently a problem, and a number of them coexist with native ones in the Adirondacks (including Conrad’s smelt). Invasive species are the nonnatives that harm the local ecosystem, usually by outcompeting and crowding out native species.

While its feathery leaves look delicate, milfoil’s effect on the environment is anything but.

Beneath Adirondack lake surfaces, there’s a dynamic ecosystem, with hundreds of species of native plants and pondweeds, underwater grasses and freshwater ferns. “When an invasive species comes in, it throws off that balance,” Greene says.

During the summer, milfoil grows about an inch a day, pulling nutrients from the soil at the lake’s bottom as it moves toward the surface. When the plant dies each year, those nutrients are released back into the water column. Pumping extra nutrients into the lake can throw off its ecological balance, impacting water quality and even feeding harmful algal blooms.

Left untouched, milfoil forms dense mats, trapping water and sunlight on their large surface area, driving down oxygen levels and artificially increasing the water temperature.

Since propellers get tangled in stems, it's hard to motorboat through a weed mat; dense enough clusters can make kayaking, canoeing and swimming less enjoyable.

"Once it gets into a lake, it can become a real problem to lake users," Peter Tobiessen, biology professor emeritus at Union College, writes in his book *The Secret Life of a Lake: The Ecology of Northern Lakes and their Stewardship*. "Just imagine your favorite lake with impenetrable masses of weeds growing in all areas shallower than 15 feet!"

Since tourism and second-home ownership drive the Adirondack Park's economy, the cost of ignoring milfoil is significant.

Research published in the journal *Ecological Economics* found that Eurasian milfoil "significantly and substantially" affected lakefront property values in Vermont. Other studies show diminished property values on lakes with milfoil, from upward of six to 19 percent, depending on how bad the infestation was. (In a more pleasant finding, the presence of loons on Adirondack lakes is linked to increased property values.)

But how to protect lakefront investments is a trickier question.

**Lake George Charts Its Own Course**

A single winding road connects Huletts Landing's tight-knit families to Route 22, and to the outside world.

Helena Rice spent summers at her family's camp there for as long as she can remember, and even one winter in the boathouse as a newlywed, chopping wood and pulling water from a hole she and her husband cut in the ice.

When the bay in front of her family's camp was identified as one of two ProcellaCOR treatment areas, Rice volunteered to represent her family in the lawsuit against the APA.

While there are patches of milfoil in her bay, she says, the water is deep and the weeds haven't gotten in the way of swimming, boating or fishing. While Rice is concerned about putting an herbicide into the water she drinks and waters her garden with, she's more worried about the unknown. The Huletts Landing community has been protecting the lake for more than 100 years, she explains, and neither Lake George, nor her community, is the place for an experiment.

"It's hard for some people to understand," Rice says, adding, "Lake George is my church. It's where my family is buried. We have a graveyard. My ancestors are there. It's more than just a summer house or a vacation spot. It's deeper than that."

Across the park, Tobiessen is obsessed with his own Adirondack lake.

Tobiessen has a camp on Sacandaga Lake (not Great Sacandaga Lake reservoir, he notes), which he's been intensively studying and sampling since 1980. As a biologist and lake steward,

Tobiessen is well acquainted with Eurasian milfoil. Thus far, 1,600-acre Sacandaga Lake has avoided the invasive weed, even as nearby lakes report infestations.

“We’re crossing our fingers,” Tobiessen says. The community has worked hard to keep out milfoil, including dividing the lake into segments and patrolling its shores, then reporting back on suspicious weeds they spot. Tobiessen runs an early summer education program to teach members how to identify Eurasian milfoil and other invasives.

“You just don’t want to get it in your lake,” Tobiessen says. “If it does, you want to find it early. If you find it really early you can control it and get it out of there.”

Minerva Lake has passed the point of early detection. The lake’s had milfoil for decades, and even after spending more than a half-million dollars on the problem, the town was still contending with thick beds of the weeds on the 80-acre lake. Diving costs had become unsustainable, according to town supervisor Stephen McNally, and increasingly, workforce shortages meant divers were hard to come by.

In 2020, Minerva became the first Adirondack lake to use ProcellaCOR on its waters, with encouraging results so far. After two milfoil-free years, a few plants popped up last fall, which the town plans to remove using divers.

McNally, who is now bullish on ProcellaCOR, says he fields three calls a week from towns in the area looking for advice on how to fix their Eurasian watermilfoil problems.

In late April, he served on the expert panel in Lake Luzerne, where residents had gathered to talk about ProcellaCOR. The informal meeting, held in the converted bowling alley that’s now the town hall, was nothing like the contentious discussion over Lake George’s future playing out in local newspapers and other media. In Lake Luzerne, no discernible dissent followed a series of presentations from experts and local officials in favor of ProcellaCOR.

Questions from the dozen or so attendees were largely logistical or technical: Would there be restrictions on swimming? (No.) How long would the results last? (Three years, most likely.) Could milfoil become resistant to ProcellaCOR if multiple treatments were needed? (Not in a cold state like New York.)

**An Agonizing Decision**

When it comes to battling milfoil, Bill Harman has seen it all.

Harman has led SUNY Oneonta’s Biological Field Station on Otsego Lake, just outside of the Blue Line, for more than 50 years. The control strategies he’s seen in action include hand-harvesting with diving teams, herbicides, lake-bottom mats, mechanical harvesting, dredging lakes, draining lakes, and even introducing weevils, moths, midges and caddis flies to see if herbivores could keep the milfoil population down.

There's no silver bullet, he says, and a good lake manager should have a diverse arsenal of techniques to pull from.

Amy Smagula, who makes those decisions in New Hampshire as part of the state's Department of Environmental Services, says picking the best treatment methods for milfoil can be difficult. "There are a lot of variables," she says. "It's an agonizing decision to try to parse it all out, but you just try to do what seems most logical and effective."

But the stakes are high, since "people get kind of twisted around these issues," Smagula says. She's seen families broken up over milfoil. "One wanted treatment, one didn't," she says. "It's definitely contentious. People have their opinions."

At 44,586 acres, New Hampshire's Lake Winnipesaukee, which is a drinking water source for some residents, might be the best parallel to Lake George. Winnipesaukee moved forward with a plan that involved ProcellaCOR treatments on a town-by-town basis and has been monitoring the treatments for the last two years, Smagula says. Their reports indicate that the herbicide typically clears the water column within 24 to 48 hours and hasn't been detected in any drinking water sources. According to the state, there's no evidence that ProcellaCOR is harmful to people or aquatic animals and it has almost no impact on other plants.

Modern herbicides are the most direct and effective technique for dealing with milfoil in Harman's opinion, but he doesn't begrudge those who don't feel comfortable with them. Those kinds of concerns are valid, he says, after all, the herbicides people grew up with "killed everything under the sun."

The specter of chemicals like DDT and Roundup popped up in the public comments to the APA opposing ProcellaCOR and in my conversations with people who love the Adirondacks, including with my family and friends. Roundup has been embroiled in safety lawsuits for years. Fears over DDT—which the EPA banned in 1972 because it was hurting birds and fish—helped spark the modern environmental movement.

"Nobody knows what happens when you have products and they haven't been around for 100 years to know all of the results," Harman says. "There may be something uncomfortable happening in the future that nobody's aware of right now. "

We can't see into the future. Instead we collect the facts and make a decision on the best possible evidence available. "You can never say that something is 100-percent safe," Tobiessen says. "You never know, and you sort of hold your breath."

**Erin Schumaker is a health and science reporter who lives in Brooklyn. She grew up in Saratoga Springs, spending summers at her family's camp on Lake George. Her work has appeared in *Politico*, *HuffPost*, *The Guardian* and *New York Daily News.***

## By the Numbers

**1979: First report of Eurasian milfoil in the Adirondacks**

**1985: Lake George reports Eurasian milfoil**

**65: Adirondack water bodies with Eurasian milfoil**

**13% of the 483 Adirondack water bodies APIPP monitors have Eurasian milfoil**

**25 to 50: Tons of milfoil harvested from Lake George annually**

**$500,000: Estimated yearly cost of hand-harvesting Eurasian milfoil on Lake George**

**6% to 19%: Estimated decline in lakefront property values among lakes with milfoil infestations**

*Sources: APIPP, Ecological Economics, Resource and Energy Economics, Land Economics*

## How to help

- **Always clean, drain and dry your boat and equipment before launching in a new water body.**
- **Join APIPP's Lake Protectors program to learn how to identify, survey and record data about aquatic invasive species on your lake.**
- **Encourage your community to participate in a lake monitoring program. (APIPP partners with lake associations and community groups to create milfoil control plans and track their progress.)**
- **Learn more about milfoil at adkinvasives.com, particularly if you own waterfront property. The more people who are involved and knowledgeable, the better.**

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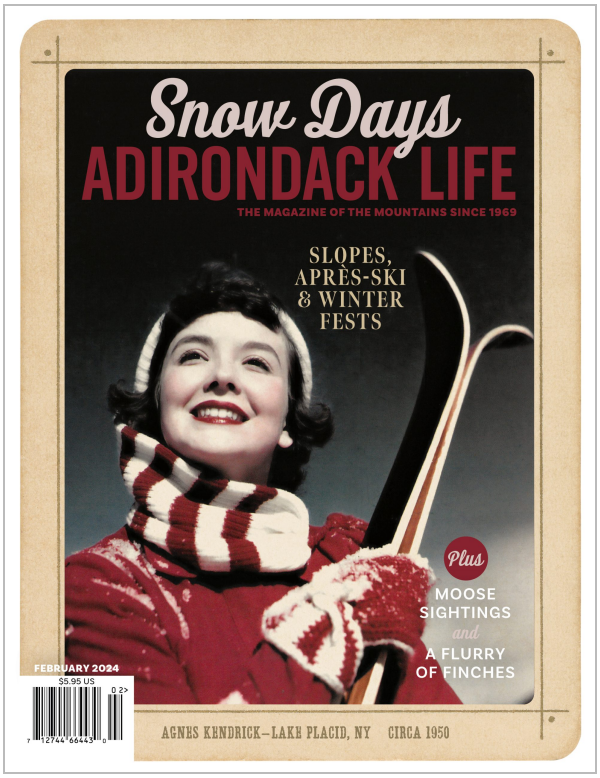


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