

HOW WE FACED DOWN AN INVASIVE PLANT, WATER CHESTNUT, THAT THREATENED THE RIDEAU RIVER

Volunteers pulled together (literally) to stop European water chestnut from taking hold in the Rideau Canal

Peter Melvin was ready when the call came. He knew his favourite stretch of the Rideau River well, and he'd seen the changes in the familiar floating plants on the water surface.

"There's a spot, near where I live, where I've fished 'muskie' for a long time. I do a fair amount of fishing in my kayak and I had noticed some plants there growing like a mat. And I wondered, where did the heck did this come from?"

Those plants were an invasive species, European water chestnut, [discovered on the Rideau River](#) by DUC in 2014. DUC, the [Rideau Valley Conservation Authority](#) (RVCA) and the [City of Ottawa](#) quickly joined forces to arrest its spread.

"Often when we're managing invasive species, eradication is not a feasible end goal," says [Kyle Borrowman](#), DUC's program coordinator for European water chestnut.

"However, with early detection and swift action, there is hope to eradicate local outbreaks of European water chestnut."

The following spring, RVCA put out a call for volunteers to help remove the plants—by hand.

"I realized the plants were getting quite thick and not good for the muskellunge there," Melvin recalls. "Then I received the request for help and it included a picture of water chestnut. I recognized it right away."

Volunteers hand-pulled invasive plants in the Rideau Canal

Melvin joined conservation staff and about 20 volunteers who put in 49 volunteer-hours hand-pulling the plants from a 1,000-metre area near the [Black Rapids Lockstation](#), part of the [Rideau Canal National Heritage Site](#).

"They had a bunch of canoes and some larger boats," he says. "Off we went with two people to a canoe. In a canoe, you're closer to the water and can reach in to grasp the plants. It's like pulling out a big salad. You pull them up gently out of the water and carefully avoid the sharp nut at the bottom. As the canoes filled up with plants, the larger boats would take the plants to shore."

In July and August 2015, the volunteer parties removed 2,700 kilograms (5,900 pounds) of plant material from the river.

That's about the weight of a half-ton truck and trailer!

The following June (2016), eight volunteers—including Melvin—logged 24 hours clearing about 10 acres (40,000 square metres) of river. By 2017, boatloads of plants were down to basket-loads.

Inspections of the area in 2018 uncovered some single plants and clusters along the west shoreline and in shallow waters south of the Black Rapids lock.

“Our volunteers have been instrumental in removing these plants,” says [Chelsey Ellis](#), RVCA’s [City Stream Watch](#) coordinator. “Thanks to their efforts, we’ve seen a dramatic reduction in the number of plants in the Rideau River from year to year. But we need to remain vigilant going forward.”

Water chestnut seeds spread quickly

European water chestnut, an annual plant that propagates by seed, has the potential to spread rapidly. Swift action is crucial because stopping the seeds stops the population growth.

The plant was introduced in Massachusetts in the late 1800s as an ornamental plant. But it is so fast-growing that it can cover formerly open water with dark vegetation, blocking out sunlight and reducing oxygen that is needed by aquatic wildlife. The seeds, or nuts, have sharp spines that are painful to grasp or find underfoot.

“Water chestnut could easily spread through the Rideau Canal, from Ottawa to Kingston to the lakes and rivers connected to the system,” says Borrowman. “That’s why DUC and RVCA will continue monitoring and removal tactics that address both the surface plant and the seed bank below to prevent future outbreaks.”

Keep watch on shorelines and shallow bays in eastern Ontario

Aquatic invasive species are an ever-growing environmental and economic threat to Ontario.

The plant has also been found in the Ottawa River (Voyageur Provincial Park), the Greater Cataraqui River (Kingston), and near Wolfe Island in Lake Ontario.

“Our water resources need looking after, and that’s a big job,” says Borrowman. “If we all keep an eye on shorelines and shallow bays for this invading plant, we just might be able to stay ahead of it.”

Let’s work together to rid our waterways of uninvited guests. If you spot an invasive species, contact the toll-free Invading Species Hotline at 1-800-563-7711, or visit [EDDMapS Ontario](#) to report a potential sighting.