

Court battles, conservation and a cornered market: rockweed industry in state of flux

a day ago by: Frances Willick



A rockweed harvester works near the mouth of the Gouldsboro Bay in Maine in this photo taken in 2015. (ROSEMARY LEVIN)

If you've lived in Nova Scotia for very long, you've probably seen it.

At low tide, the stuff clings in great, slimy, greenish-brown heaps to the rocky shoreline.

Sometimes it smells and is full of flies, and if you're caught unawares while swimming in it, well, it's the stuff of nightmares.

But there's gold in them slimy heaps — ecologically and commercially.

The humble rockweed fulfills a long list of ecological needs. The seaweed, which can grow to over two and a half metres and live for 15 years, helps maintain water quality, acts as a food source and habitat for many marine species and provides shelter from predators for juvenile fish.

It's also coveted as a commercial product and is used in nutritional supplements, fertilizer, cosmetics, livestock feed and both human and pet food.

Seaweed is big business. That's why it was at the centre of a recent lawsuit in Maine.

The case pitted Dartmouth-based Acadian Seaplants Ltd. against three waterfront landowners who claimed that they own the rockweed growing on their portion of the shoreline. Acadian Seaplants, in turn, argued that harvesting rockweed is akin to fishing — something the public has a right to do.

Last month, Maine Superior Court Judge Harold Stewart II ruled against Acadian Seaplants, stating that rockweed growing between the low and high tide marks belongs to the owner of the tidal flats where it grows. Harvesters must gain permission from landowners before they begin removing the rockweed.

Acadian Seaplants has already filed an appeal. Although the decision is stayed while the appeal unfolds, if the company loses, it could devastate Acadian's harvesting activities in the state.

The landowners' lawyer, Gordon Smith, told Local Xpress that if the company loses the appeal, it would have to acquire permission from each and every property owner before harvesting rockweed.

"In order to get the permission, that a harvester would need to harvest on a large commercial scale ... that would require a lot of individual landowner permissions," Smith said. "And the question of what is the fair price for that permission is an unknown right now."

Acadian Seaplants president Jean-Paul Deveau said he believes the judge made errors in his decision, which gave a "broad basis for us to appeal."

"The court will either decide one of two things: (it's a) public trust or it's a private landownership," Deveau said. "Effectively, if it's private landownership, it will, for all practical purposes, shut down the intertidal seaweed harvesting industry that exists. The impact on that can be monumental for the industry in the state of Maine."

Deveau was not as emphatic about the potential effect on his own business if he loses the appeal. He wouldn't disclose exactly how much of Acadian Seaplants' total rockweed harvest comes from Maine, but he described it as a "material" quantity.

"It's not enough for us to go and say, 'Wow, we have to scale back our operations.' I'd have to go and figure out, well, what are we going to do to make up that difference?"

Rockweed harvesting is booming in Maine.

A 2014 report on the state's industry found that the number of harvesters doubled from 29 to 59 from 2004 to 2012, and landings of rockweed rose almost five-fold, from about 1,350 metric tonnes to more than 6,500 tonnes during the same period. Last year, there were 134 licensed seaweed harvesters who netted almost 6,350 tonnes in total, of which rockweed comprised about 97 per cent.

While the quantity may sound impressive, rockweed sold at dockside is not a particularly lucrative crop. The value of those 6,350 tonnes was just \$468,105. But considering the seaweed's role in value-added products, it has a total estimated value of \$20 million in Maine.



Rockweed grows near Portuguese Cove. (RYAN TAPLIN / Local Xpress)

Maine's landings pale in comparison to the amount raked in off Nova Scotia's shores.

"It's huge," says David Garbary, a seaweed biologist at St. Francis Xavier University in Antigonish. "It's a huge harvest industry in Nova Scotia."

The bulk of the harvesting takes place in the southwestern region of the province, from around Shelburne to St. Marys Bay along the Acadian Shore.

In the summer, harvest boxes for rockweed can be spotted "on almost every wharf that you go by, every little fishing village," Garbary says.

On average, about 26,500 tonnes are harvested each year. That makes Nova Scotia's harvest more than four times the size of Maine's.

But the question being asked in Maine — who owns the seaweed? — isn't being asked in Nova Scotia.

Here, shoreline property owners can lay claim to everything on their land up to the high tide mark.

The Crown owns anything below that, including the seaweed.

It's the government, both federal and provincial, that is responsible for regulating the industry. The province issues exclusive leases to companies for designated portions of the shoreline that give them a monopoly on rockweed in that area. The federal fisheries department has regulatory authority outside of those provincial leases.

Harvesters must abide by the rules laid out in the provincial Fisheries and Coast Resources Act, which stipulates, among other things, that the harvest must not interfere with the regrowth of the plant or a sustained yield, and that harvesters must leave at least 12.7 centimetres of the rockweed above the holdfast, or root-like portion of the plant that is attached to the ocean floor.

But Garbary and other scientists aren't convinced that the current regulatory approach is the right one.

“Acadian Seaplants has been allowed to manage this resource and they are managing it in what they would say is a sustainable manner,” Garbary said. “Their proof of that is that they claim — and I have no basis for disputing the claim — that their harvesters go back to the same sites every year and they can harvest the same amount. So, from their perspective, they can claim sustainability, which is very positive.”

When asked about the sustainability of Acadian Seaplants’ harvesting methods, Deveau begins to sound a bit impatient. You can tell he’s been over this ground many times before.

“There are people out there who go, ‘This is not good.’ Please, people. Do your homework. You’re just saying that. ... Do some scientific work.

“We know unquestionably that we are taking every year less than the annual growth. What we’re doing is taking it and putting it to good use. So, generally, if you go into the areas where we harvest, most of the time you can’t even see the difference ... between a harvested area and a non-harvested area.”

He says Acadian Seaplants employs researchers who publish peer-reviewed scientific articles and who visit each harvest area every year to calculate how much rockweed can be taken.

“Because we know we’re taking less than the annual growth, because we know it’s essentially sustainable forever the way that we’re doing it, because we protect the habitat, I’m very, very proud of what our scientists, our company has been able to do,” Deveau says.

It’s certainly in the company’s interest to keep the rockweed healthy. If the seaweed doesn’t grow back, Acadian Seaplants can’t harvest it.

No one disputes that if certain regulations are abided by, the rockweed grows back. But some say it grows back differently.

Heike Lotze is a marine biologist at Dalhousie University who has been studying rockweed for more than 20 years.

She recalls one time when her mother came to visit and they went to the beach together. Lotze was examining seaweed in a rockpool near the water’s edge while her mother looked on.

“She was like, ‘Ugh, it’s all slimy.’”

Lotze offered a different interpretation: “No, it’s like an underwater garden.”

Lotze has snorkelled in rockweed beds in the Maritimes where the plants were two metres tall.

“It’s like going through a dense forest,” she said. “There’s a lot of critters in it and sometimes schools of little fish that hide in the surface area. It’s a really nice feeling. It feels like a forest. You feel the importance of this canopy structure. To me, they are really precious.”

But in Nova Scotia, the average plant is now only about one metre long, she says. Instead of rockweed trees, there are only bushes.

"It's like in forestry, when you cut trees or bushes, they grow in a different way, especially if you cut them again and again and again, than if you just leave them alone and you get an old-growth forest," Lotze says. "In terms of the rockweed beds, we don't have any old-growth rockweed forest left because everything has been harvested. So we don't completely know what the effect is."

And when you harvest rockweed, it's not just rockweed that's affected. More than 150 other organisms — including ducks, shorebirds, fish, lobster, mollusks, sponges, worms and algae — rely on rockweed. The impact on those species, some researchers say, isn't being taken into consideration by harvesters such as Acadian Seaplants.

"From an industry management perspective, I think Acadian Seaplants is doing a pretty good job," says Lotze. "From a single-species management perspective, which is how we manage most fisheries, they are doing a good job. But ... nobody's looking into the effect on other species that use the rockweed bed, so the ecosystem perspective isn't really covered."

Garbary agrees.

"The only thing that Acadian Seaplants is concerned about is that single species," he says. "Any resource, whether it's cod fishery or seaweed, as soon as you manage it for that single resource, you're probably screwing a whole bunch of other things. My concern is that no one has asked the question ... 'What really are the potential impacts of that harvesting?'"

Like Lotze, Garbary points out that there are some positives to Acadian Seaplants' harvesting operations in the province.

"I would say there's no question that since they've taken it over they've probably done a better job than the free-for-all that existed before that," he says. "We need this company because they employ people and they produce an interesting series of products. They're a born-in-Nova Scotia company that has actually done a lot of research. ... They are a Nova Scotia success story.

They need to be given credit for that. And yet at the same time, a lot of what they're doing is clearly self-interest, and only self-interest."

Deveau says his researchers have done a lot of studies on rockweed and other marine organisms. But he's willing to do more.

"If people have real concerns about a certain species, please, we'll co-operate and work with you to study it. We're not seeing anything that would concern us."

Even Fisheries and Oceans Canada has raised concerns about the rockweed harvest.

"There is insufficient information or analysis from industry or third-party experiments to determine whether (the harvest) rate is detrimental to the habitat value that rockweed provides to associated plants and animals," reads a 2013 science advisory report by the federal fisheries department.

The report recommends creating harvest-free zones in order to evaluate the impact on rockweed and the ecosystem. It also recommends changing the minimum length of the plant that must be left attached to the rock from 12.7 centimetres to 25.4 centimetres and examining whether seasonal closures would help protect the rockweed during its peak growth and reproductive times.

In a separate 2013 Fisheries and Oceans research document, a government scientist notes that "it is possible to argue that large-scale ... harvesting of seaweed constitutes a harmful alteration, disruption or destruction of fish habitat under the Fisheries Act."

And yet, those warnings and recommendations have not been incorporated into the provincial or federal Fisheries Act.

That's what bothers Garbary.

"The industry needs more oversight and DFO is not doing it."

Jeremy Boudreau knows rockweed inside out.

Boudreau has worked on the water since he was 15 or 16, first harvesting Irish moss and then turning his attention to rockweed a couple years later. "It's very physically demanding, there's no doubt about it," says Boudreau.

Harvesters stand in their boats and use hand rakes to cut and lift the seaweed into their vessels.

The harvest is tide-dependent, so days can be long. And the weather can sometimes make them feel even longer.

"One day you go out and it's plus 20 and it's like being on a lake and it's beautiful and it's scorching hot, and the next day you show up and it's blowing 35 and rainy and cold and windy, and you're wet all day long and cold and miserable."

Boudreau worked as a harvester for Acadian Seaplants for about 20 years while travelling back and forth from Nova Scotia to Western Canada, where he worked in the oil industry. But recently he heeded the call of home.

Boudreau and two others, Matthew Dugas and John Barkhouse, founded Maritime Rockweed Ltd. in Sheet Harbour on the Eastern Shore. The company began its harvesting operations last August and aims to rake in 2,000 tonnes this year. Eventually, Maritime Rockweed hopes to harvest 10,000 tonnes and build a drying and processing facility.

"The love for my province and love for the water, I wanted to try and start something down here," Boudreau said. "I see great potential in this industry ... and a lack of competition in the industry,"

That lack of competition rankles Boudreau.

Few people know exactly how much of the rockweed industry in Nova Scotia is owned by Acadian Seaplants. Citing "competitive reasons," Deveau would not disclose his company's total harvest quantities. A 2012 article published in a scientific journal said the company is responsible for about 92 per cent of the harvesting in the Maritimes.

Boudreau says Acadian Seaplants owns 100 per cent of the industry in New Brunswick and about 75 per cent in Nova Scotia.

Since Acadian Seaplants is primarily focused on southwestern Nova Scotia, Boudreau decided to look to the Eastern Shore to start his business. His harvesters have been working legally in federal waters, but Boudreau applied for four provincial leases covering the coast from Halifax to Canso in order to have exclusive access.

But once Maritime Rockweed submitted its lease applications, Acadian Seaplants submitted a counterbid. And now, the future of Boudreau's company is in limbo.

He says the lease that Acadian Seaplants bid on is the one with two-thirds of the rockweed on the shore. If Boudreau fails to get that lease, or any of the four he has applied for, he won't be able to harvest enough seaweed to run a viable business. His company would be "dead in the water," he says.

The provincial permits directory website for rockweed leases says the waiting period after applying for a lease is one to three months. Boudreau has been waiting for almost two years now.

He says when he calls the province to find out the status of his application, he gets "a bunch of excuses, bunch of runaround, bunch of dead-end roads."

"We feel bullied," says Boudreau. "There's no ifs, ands or buts about it. We're having a hard time getting government funding, government support, government anything. The Liberal government is all about trying to start new business. They talk about new entrepreneurs, bring jobs to the rural community. ... Here we are trying to start an industry in an area nobody was at, and bring some job creation of a natural resource to that particular area and we can't even get government support on that.

"We can't even have a chance to kick at the can. That's all we're after, is a fair shot at it."

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