





Family Jewels

Families farm the sea in response to the fisheries collapse, preserving their rural, coastal lifestyle

by Erin Johnson

Johnny Flynn is the CEO of a family business. His working day begins between seven and eight in the morning. The daily commute across the bay, where he oversees staff, deals with suppliers and handles production, takes 10 minutes (11 or 12 if there's traffic). At his family's home in the evening, as with any household, the telephone rings most often for the kids, but it also doubles as a back-up business phone. Customers who call are often greeted by his wife, Mary Jane, or one of the three children—Ellen, 13, Thomas, 11, and Sarah, 9—who take orders like any sales clerks at corporate headquarters. The company's start-up marketing strategy, back in 1995, consisted of having a dozen hats produced with the company name inscribed on front.

The Flynn's family business in Souris, PEI, is farming, but they grow neither potatoes nor grain; nor do they breed cattle. They are among an

All in a day's work: Sarah Flynn creates an Inukshuk-like reflection while surveying her family's oyster beds.

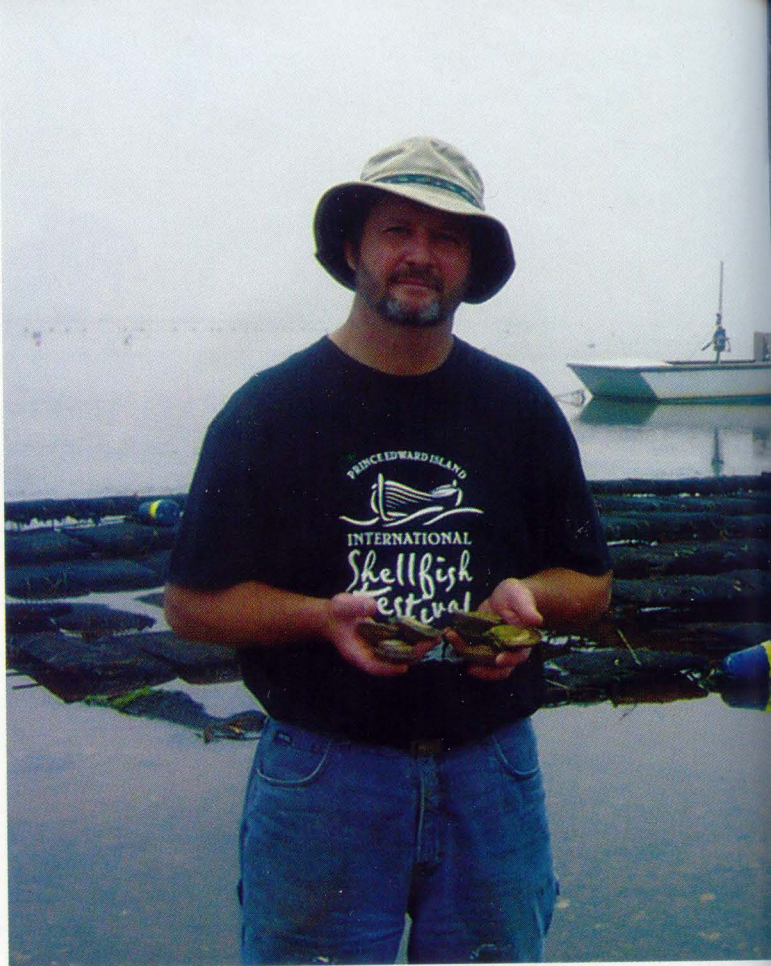
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expanding class of oyster farmers who nurture their crop in unforgiving waters, precipitated by the over-harvesting of wild oysters and the closure of the cod fishery. In the past 10 years Island landings—number of pounds of oysters farmed and harvested from the wild—have doubled, from less than three million pounds per year to six million; more than 1,000 Islanders are now involved in farming and processing oysters, mussels, scallops and their ilk—a business otherwise known as shellfish aquaculture.

Like any new business, the start-up of an oyster farm can be a strain. Johnny compares his initial struggle in developing Colville Bay Oysters to a start-up business in the Christmas tree or blueberry industry. "You just have to keep working at it," he says. In the beginning, he took advantage of government start-up financing that allowed matching dollars against his family's own seed capital. Richard Gallant, manager of the aquaculture section for the PEI Department of Agriculture, Fisheries, Aquaculture and Forestry, says the government has delivered a number of programs over the years to stimulate development in aquaculture.

"Oysters are a fairly challenging species to grow in quantity," he says. "There has been government programming to support the

"You have to put a lot of time and effort into figuring out what works," says Johnny Flynn, at right. Like all farmers, Johnny's schedule is dictated by the seasons.



Cleaning up the sea cages

Integration of shellfish farming and finfish aquaculture may hold a partial solution to environmental degradation

Among the growing list of environmental concerns with finfish aquaculture—growing huge numbers of fish (mainly Atlantic salmon) in a tightly restricted space—are the potentially damaging nutrients introduced into the ecosystem from unconsumed fish meal, and the large volumes of feces. Lobster fishermen are particularly concerned about the impact.

Researchers are now envisioning an aquaculture system where nothing is wasted and the environmental footprint of this burgeoning industry is at least reduced. In an ongoing project at St. Andrews Biological Station in New Brunswick, an integrated aquaculture project funded by AquaNet (Canada's Research Network in Aquaculture)

has been examining the feasibility of growing mussels and seaweed with salmon together in a sustainable manner. Researchers, students and industry partners are now considering how to apply the technique on a commercial scale.

"The whole project is premised on the need to be more efficient in the marine environment," says Shawn Robinson, researcher for the Department of Fisheries and Oceans.

Phase one of the project began two years ago and was hailed as a tremendous success. On the mussel side of the research, Terralynn Lander, a PhD student from the University of New Brunswick, found that during a four-month period the mussels



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oyster sector, such as technical assistance, marketing and equipment."

Despite the assistance, Johnny's company didn't have much to sell in the first few years and he earned what he terms nothing to minus nothing. "You have to put a lot of time and effort into figuring out what works at a site," he explains. Business has picked up over the past five years, however—selling oysters to local restaurants. But because there's so much competition on the Island Johnny has also begun to ship his oysters to Montreal, Toronto and the United States.

The most productive site of Colville Bay Oysters is a five-hectare lease in West Souris. The plant—a one-and-a-half-storey shingled building that's 12 metres long and seven metres wide—he describes as being "no bigger than what we need." This plant lies just metres from the high-tide mark and is federally inspected, allowing the company to ship oysters outside the province.

Like all farmers, Johnny's schedule is dictated by the seasons. Spring means collecting seed for growing next year's crop. From

growing near the salmon cages were one centimetre larger than mussels 500 metres away. This suggests the mussels were taking in the organic particles from the leftover pieces of food given to the salmon.

Similarly, phase one found the seaweeds growing in close proximity to the salmon cages grew 46 per cent more biomass than other seaweed, indicating the seaweed is feeding on the salmon's inorganic and dissolved nutrients, such as nitrogen and phosphorous.

"Integrated aquaculture is a different concept because you want to balance the system," says Thierry Chopin, professor at the University of New Brunswick. "The price of salmon is what it is and getting new sites is not easy, therefore, we have reached a time where there is a need to diversify."

In phase two, the group is trying to show that in addition to being environmentally friendly, the set-up is cost effective—the products taste good and people will eat them. "The biological data are there, but now we need to convince the industry with an economic/social demonstration," says Thierry.

"I think this is feasible," says Shawn. "The cost of additional material is incremental. If it gets into diversification and solves environmental problems, then I think they (the aquaculture industry) will go for it."



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It's a busy schedule for the entire family, and a lifestyle that, despite its challenges, Johnny says is immensely rewarding.

May to August, the delicate and fragile tiny new oysters require intensive care. The 600 French tables (long steel structures suspended off the bottom, in which the oysters are cultivated) each hold five plastic mesh bags, and each bag contains as many as 2,000 oysters up to five centimetres in length. As the oysters grow they require more space, which involves splitting the bags and grading by size.

In September, raking up and packaging the oysters for market begins. The harvest methods Johnny uses are traditional. Colville Bay Oysters owns two dories for harvesting—one, a four-metre traditional white dory and the other, a flat aluminum barge up on pontoons. Old-fashioned throngs, long poles with grips that grab a bunch of oysters in a scissor-like action, are used to rake up the oysters. "We like to do things slow and cheap," laughs Johnny.

"You're always trying to work with Mother Nature even if she works against you," he adds.

In fact, farming oysters is in itself a form of working with nature, albeit human nature—it began in the 1900s to offset the over-harvesting of wild oysters. "When oyster farming first began the principle was to replace a natural resource that was becoming endangered," says

Philip Drinnan, a former oyster and fish grower who has been involved in the industry since he was a teen working for his Welsh scientist father, Roy Drinnan—one of



Johnny and Sarah take a moment out to enjoy a freshly plucked oyster.

the pioneers of the industry.

"We did what we traditionally do and turned to farming to replace what is being lost in the wild."

"It began with seed production, and then taking oysters and putting them on a bed to grow," says Philip. "Now, the economics of oyster farming are more viable."

The other factor contributing to the increase in shellfish farming is the decrease in cod fishing: the oyster farm is in part a response borne out of economic necessity

"We did what we do traditionally, and turned to farming to replace what is being lost in the wild."

after the closure of the cod fishery. Before launching Colville Bay Oysters Johnny was a fisherman, and still fishes lobster in May and June. "I've been lucky," he says. "The

lobster fishing income kept us afloat through the first couple of years."

Being both a fisherman and an aquaculturist is a trend Richard Gallant says is becoming more common. "We're seeing more and more of people doing both," he says. "It kind of spreads out their effort, so they don't have all their eggs in one basket."

Like fishing, "aquaculture is carried out in coastal communities," he says. "Many involved live and reside in coastal communities, thereby creating important jobs and wealth in small rural economies. As a province we are supportive of that."

Back in Johnny's boardroom with a view, the atmosphere is pretty casual. With only four employees to help out, the children pitch in as much as they can around school, hockey, skiing and other commitments. It's a busy schedule for the entire family, and a lifestyle that, despite its challenges, Johnny says is immensely rewarding. "It's been a long, hard struggle," he says, "but I think it's getting easier."

"We want to keep doing what we are doing, trying to provide a good product." 