

# Dark Harbour project a new approach in salmon recovery

Barb Rayner

GRAND MANAN

**D**ark Harbour, on Grand Manan, is probably best known for its dulse, but now it is also the site of a unique wild salmon recovery project.

Hundreds of salmon smolts are currently being reared there for release this fall.

"The Dark Harbour site has been described as a conservation sea farm and that might be the first time that has happened in the world," said Corey Clarke, manager of the Inner Bay of Fundy Wild Salmon Recovery Project and ecologist team leader with Parks Canada at Fundy National Park.

"There is no doubt in my mind this is a great story. We started work in Dark Harbour after a lot of effort by Cooke Aquaculture and the village of Grand Manan.

"The whole story of Dark Harbour is an interesting one because it is the next chapter in a program we have been working on with the aquaculture industry for the better part of five years."

He explained that the Atlantic salmon population in the Inner Bay of Fundy, which includes about 40 rivers from Saint John around to the New Minas Basin, has declined drastically and in early 2000 was determined to be in danger of extinction.

"They leave our rivers and don't come back. DFO led recovery action on this in the early 2000s and they continue to do that. We went and collected some fish as they were going downriver and took them to Mactaquac."

In the Live Gene Bank Program at Mactaquac, Clarke said, "We collect fish from the wild and they go into captivity then they are either released or spawned and we release the offspring to go back to the rivers.

"We keep doing this life support system because they keep not coming back from the ocean but seem to be surviving okay in the rivers. We are still not seeing any returns coming back from the ocean."

After monitoring fish released from the live gene bank, Clarke said it was determined that wild exposure was really important to these salmon and it seemed like the earlier they were released to the wild the better they survived.

"We took that knowledge and said how would you maximize the time in the wild if that is good? Could we make the animal



Submitted photo

**A special salmon farm has been established in Dark Harbour, Grand Manan, where hundreds of smolts are being grown for release into the Inner Bay of Fundy rivers.**

do well enough so it comes back from the ocean?

"We thought the best thing would be to release adult salmon we would produce from smolt that had only wild exposure. The problem with that is that it costs a lot of money to grow fish to adult size in a hatchery."

The aquaculture industry was approached and asked if the smolts could be raised in sea cages. Clarke said the industry designed special cages to hold a few hundred of these wild fish to grow them to adult size then they were put back in the rivers.

"We started doing that in 2011. They were grown in a sea cage on an operating farm in the Bay of Fundy. We have grown fish on Deer Island, Back Bay and Grand Manan.

"After achieving this success we asked the industry if they would be interested in doing this again. They said that to do this right we should do this on a dedicated site with a farm, boat and pen and someone dedicated to growing these fish."

The idea to use Dark Harbour came from Cooke Aquaculture, said Clarke, and the company approached the village to ask if they would consider allowing wild fish to be grown there.

"Grand Manan loved the idea of having the village part of this project. Cooke Aquaculture said they might be able to work at the Dark Harbour site as long

as the province would approve a special lease to grow fish there... and the province granted a lease for rearing wild fish."

The Dark Harbour site is being managed by Cooke Aquaculture's Jenn Hutchison with support from the company's saltwater production manager Matthew Ingersoll. GMG has designed and built special containment systems for the wild fish while Shoreland Transport makes sure the fish are safely moved.

"The first fish coming out of Dark Harbour will come out this coming fall. So far, it has been an excellent place to grow fish. We have seen excellent survival at this site. There are only wild fish there."

The Dark Harbour project is generating a lot of interest, he said, and it is being considered in Nova Scotia for the national park in Cape Breton as well as on the Miramichi River in the face of alarming declines in salmon numbers.

"The Dark Harbour site is special because it is a dedicated site for rearing wild fish. There will never be more than 10,000 fish there. Cooke Aquaculture has customized existing sea cages to make smaller compartments.

"The real hope is that we can demonstrate a model that works, publish it and they will provide the proof on whether this is a viable method. If it works, the hope would be that other river groups that have populations in trouble can collect some smolts, approach the aquaculture industry

and maybe there could be multiple populations there (in Dark Harbour).

"It takes a lot of people. All of these groups are working together and the result is that, in October, we put over 400 adult salmon from Dark Harbour back into the rivers."

There are a number of players involved in the project - Department of Fisheries and Oceans, the Department of Agriculture, Aquaculture and Fisheries, Fort Folly First Nation, Cooke Aquaculture, the village of Grand Manan, the Atlantic Canada Fish Farmers' Association, Parks Canada, the Huntsman Marine Science Centre and UNB.

Clarke said the wild fish are held for a couple of months and tested at the HMSC to make sure they do not bring in any diseases.

He said UNB PhD student Kurt Samways is doing his post doctorate on the effects of putting these fish back in the river.

"The reason we are doing this is for the recovery of a species at risk. These fish are almost extinct in our rivers. The unexpected benefit of putting them back in the rivers is the excitement they might generate."

At Fundy National Park, people can become a biologist for the day and snorkel over a pool with a couple of salmon in it.

"This has created a lot of awareness. The kids show up for the release and they go wild. There has not been fish in these rivers for 20 years."

## St. Stephen plans winter carnival fun for March break

Kathy Bockus

ST. STEPHEN

**S**t. Stephen will host a winter carnival during March break.

Mike O'Connell, the town's director of recreation and parks, said the week of March 7-12 has been designated as winter carni-

val time in St. Stephen and a number of activities are planned for the whole family to enjoy.

Most of the events planned will take place at the Garcelon Civic Center, although the Ganong Nature Park has been booked for a sliding day where participants will also have a chance to enjoy hot chocolate and cookies.

Depending on the amount of snow in the municipality at the time, there will be snowman-building contests for the younger kids and perhaps a sculpture contest for the teens and adults along the waterfront.

A talent show is planned in the civic centre's upstairs meeting room one evening.

O'Connell said people who want to perform are asked to register by contacting him at 466-7707 or by contacting the civic centre.

A time for cosmic skating will be scheduled and another, larger "swim in" is planned. "It's like a drive in movie at the pool," explained O'Connell.

He said the Canadian Red Cross will also offer a one day baby-sitting certification course during the week for those 12 years and older.

A complete events schedule with times, dates and locations is being finalized.

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