



Canadian Plastics Industry Association FINAL REPORT
#DebrisFreeFundy Project
2018-2019

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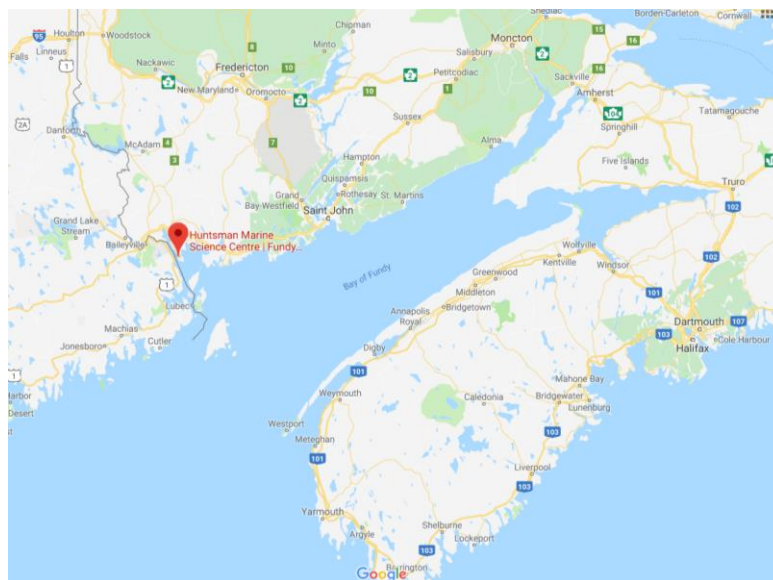
Background

The Huntsman Marine Science Centre (HMSC) is the leading marine science, research and academic institution on the East coast of Canada. Since 1969 HMSC has had over 1 million students participate in formal education programs. It is Huntsman's vision to design and deliver the highest quality marine research and education programs and to convey these to our communities in support of sustaining the marine environment and economy. Living in New Brunswick, and in Atlantic Canada in general, we're acutely aware of how vital the ocean is to both our livelihoods and our identities.

Our mission at Huntsman is to inspire stewardship through:

- The engagement of the community in the discovery of the oceans;
- The advancement of marine sciences through collaborative research and the development of innovative technical solutions for our public and private sector partners;
- The design and delivery of inspirational educational experiences.

Since 2015 the Debris Free Fundy Project (DFFP) has focused on strategies to keep marine debris out of the Bay of Fundy (BoF). With this work we have implemented the rope recycling project, which to date has kept over 3 tonnes of old and unwanted fishing rope out of the marine environment, as well as providing signage and education to fishing communities in southwest New Brunswick. Huntsman Marine Science Centre's (HMSC) business acknowledgement program has engaged local businesses in Charlotte County and encouraged them to make eco-friendly decisions in their daily operations, while pledging to limit their single-use plastic consumption. The Marine Debris Strategy Advisory Committee (MDSAC) is a group of multiple stakeholders that are developing a marine debris strategy in Southwest New Brunswick (SWNB). HMSC is successfully coordinating that committee, and facilitated the development of an updated strategy through meetings and a workshop in fall 2018. The outreach and awareness components to the DFFP have included participation in school programs, shoreline cleanups, media interviews, conferences and community engagement.



Project Location

The Debris Free Fundy Program (DFFP) ranges from St. Andrews to Alma, in Southwest New Brunswick (SWNB). Locations within this range include restaurants and tour companies that are a part of HMSC's business acknowledgement program; harbours that are a part of the rope recycling pilot project; organizations that are members of the MDSAC; and schools and communities that benefit from the outreach and awareness portion of the project.

Goal

The Debris Free Fundy Program is working towards reducing marine debris in the marine environment through input reduction of single-use plastics and removal projects, along with outreach and education.

Activities

The rope recycling pilot project began in March 2018 with the placement of four 4'x4' metal bins at four harbours in SWNB: Dipper Harbour, Beaver Harbour, Lord's Cove on Deer Island and Seal Cove on Grand Manan. Educational signage was posted with each bin, to encourage fishermen to use the bins to dispose of their old or unwanted rope. Additional signage at these harbours include notifications for fishermen and the community of where their other waste items and recyclables can be taken for disposal. The bins have been emptied of rope several times since the project's inception. To date over 4000 pounds of rope has been recycled from the bins at these harbours alone. Expansion of the project was done over the summer of 2018, based on requests from fishermen interviewed. For example, we attended a lobster fishermen's meeting through Fundy North Fishermen's Association, and we received some great feedback from fishermen that signage would prove very useful. Expansion included updated signage with information about the project at an additional 11 harbours between St. George and Alma: Stuart Town, Leonardville, Fairhaven, Blacks Harbour, Seeleys Cove, Boynes Cove, Five Fathom, Lorneville, Black River, St. Martins and Alma as well as expanding the pilot project with an additional 4 bins. These additional bins added to the previous 4 bins at 4 harbours, giving us a total of 8 bins at 5 harbours (one harbour has requested 3 bins, due to an overwhelming amount of available rope for recycling) so that now we have additional bins added to Dipper Harbour (one bin) and Back Bay (three bins). As a part of the project we also added a rope bin at the Fundy Discover Aquarium at HMSC, with signage about rope recycling to educate the 35,000+ visitors that came to the aquarium over the year.

Repurposed fishing rope weaving workshops started in the fall of 2018 and have continued monthly. They are geared at educating the community about the #DebrisFreeFundy project, and teaching participants how to do a series of rope weaving craft projects using old and unwanted fishing rope. We have found that these are an amazing way to reach members of the community that might otherwise not know about some of the work that we are doing to create a #DebrisFreeFundy. Projects varied with each workshop, including woven mats, festive monkey fists, baskets and other projects. Over 50 members of the community (also including some visiting tourists) participated with an age range of 8-80 years. (Picture in appendix of monkey fist project)

The Huntsman Marine Science Centre business acknowledgement program expanded in 2018, increasing the number of participating businesses. This program encourages local businesses to make eco-friendly choices in their daily operations, including limiting non-recyclable single-use plastics, recycling fryer oils or decreasing plastic packaging used. We have a few new businesses signed up as Supporting Partners with the #DebrisFreeFundy Program, giving us a current total of 20 partners. We are seeing our vinyl window stickers around town, and have had some really positive meetings with enthusiastic business owners and managers. As a part of the 2018 program we delivered business acknowledgement certificates and eco-friendly packaging sample kits to our #DebrisFreeFundy supporting partners. The kits included samples of items that businesses could try and test, that are compostable, recyclable or biodegradable. (Picture in appendix of the kits that we delivered).

During quarters three and four of the fiscal year, we coordinated and restructured the Marine Debris Strategy Action Committee (originally Marine Debris Strategy Advisory Committee [MDSAC]). We held the first MDSAC meeting since June 2017, with a dozen representatives from all levels of government, not-for-profit organizations, industry and other community groups. It was decided that Huntsman Marine Science Centre will coordinate the committee and continue to sit as the regional chair. The #DebrisFreeFundy Project work will contribute to the objectives of the MDSAC committee. In the last quarter of the fiscal year another 8 members have been added to the committee in an advisory role, expanded our reach of stakeholders to include multiple levels of government, First Nations, not-for-profit organizations, industry and academic institutions.

In November 2018 HMSC attended the Clean NS Clean Oceans Summit in St. Andrews, NB where 60+ stakeholders from the maritime region representing all levels of government, industry, not-for-profit organizations and First Nations gathered to discuss both regional and global strategies for marine debris and ocean health. Following up from the summit, HMSC to date sits on three working groups including education (surrounding marine debris), fishing gear (pre and post-use including topics of Extended Producer Responsibility [EPR] programs, disposal, ghost gear etc.) and also the single-use plastics group (focusing on reduction, recycling and projects such as the caps-on program in NS).

Shoreline cleanups were done throughout the funding period, within the Charlotte County area as well as further abroad. We participated in the 3rd Annual Great Fundy Coastal Cleanup organized by the Nature Trust of New Brunswick, as site leaders at one of the 20 sites around the Bay of Fundy. Targeted cleanups throughout the St. Andrews community were done throughout the summer and fall as well as organizing a cleanup with Cooke Aquaculture and Eastern Charlotte Waterways to clean up the shoreline in Lord's Cove, on Deer Island – recovering a great quantity of debris and saving it from entering the ocean. On September 6, we teamed up with local MP Karen Ludwig as part of a nation-wide community cleanup in Black's Harbour.

In October 2018 we attended the regional 2018 Harbour Authority seminar, organized by DFO for over 250 harbour authorities throughout Nova Scotia, New Brunswick and PEI. The Huntsman Marine Science Centre won our bid to do one of the plenary presentations, on Marine Debris & Waste Management, to over 200 regional harbour authorities. We also held a booth at the partnering forum, over 2.5 days, where we presented information on the #DebrisFreeFundy Project.

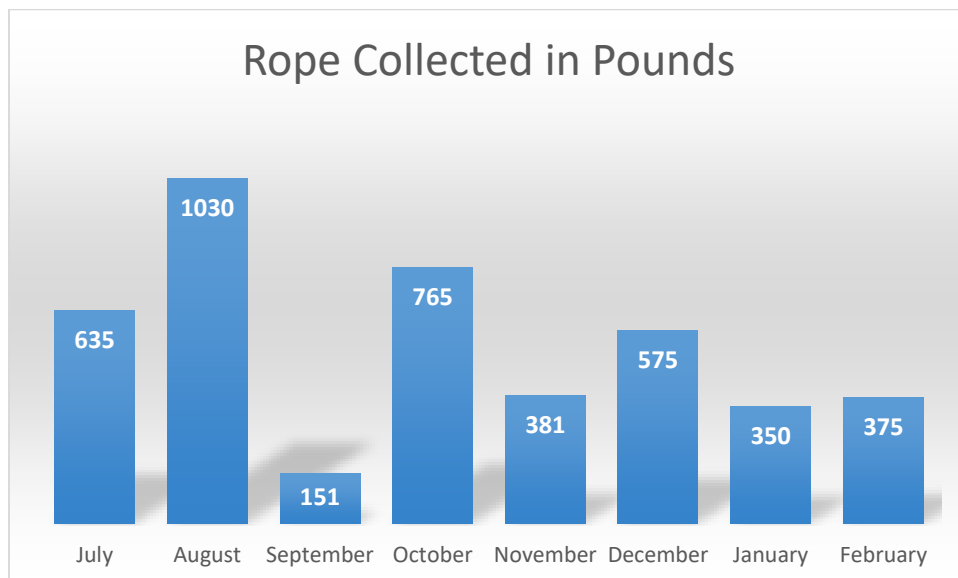
The #DebrisFreeFundy Project has been active in the press and media. We were featured on 4 CBC live radio shows (Fredericton, St. John, Newfoundland and Charlottetown), and also had an article in the St. Croix Courier about the rope recycling program. See a link to the St. John radio show here: <https://www.cbc.ca/player/play/1340798019764>

School outreach to increase awareness and educate around the issue of marine debris is a key component to the #DebrisFreeFundy project. We have started a program at the local elementary school in St. Andrews called the Vincent Massey Ocean Stewards. This program is scheduled to run for the whole 2018/2019 school year, and reaches all grades from 1-5. Monthly talks and activities revolve

around marine debris and include shoreline cleanups, presentations on animals, habitats and the Bay of Fundy as well as art. We are also involved in Youth Education in Environmental Stewardship (YEES) classes in the region with a series of presentations surround marine debris and ocean litter for high school students throughout Charlotte County. The local high school environmental class and the University of New Brunswick-SJ Green Society have also participated in marine debris talks as well as a repurposed fishing rope workshop.

Results

- 4,000+ pounds of rope removed from wharfs and the marine environment for recycling
- 35,000+ visitors to the Fundy Discovery Aquarium see the rope bin and educational signage
- Valuable data collected on rope recycled from harbours that reflects fishing seasons and individual harbour outputs
- 20+ businesses partners participating in the #DebrisFreeFundy eco-friendly business acknowledgement program
- 6+ shoreline cleanups completed in the region
- Partnerships created with multiple stakeholders over the fiscal year including multiple levels of government, First Nations, non-for-profit organizations, industry and academic institutions
- 8 rope recycling bins at 5 harbours in southwest New Brunswick
- Educational signage regarding rope recycling at 15 small craft harbours between St. Andrews and Alma
- 6+ repurposed fishing rope weaving workshops reaching 50+ community members and visitors to the area
- 250+ students reached with information and activities regarding marine debris and what they can do to create a #DebrisFreeFundy
- #DebrisFreeFundy project featured on 4 CBC radio shows, newspaper articles and multiple social media outlets
- Relationships and partnerships working with 20 members of the Marine Debris Strategy Action Committee
- 250+ harbour authorities reached with information on marine debris at the Department of Fisheries and Oceans Small Craft Harbour Harbour Authority conference



Conclusions

The rope recycling pilot project has by all measures been a success with rope being deposited in bins at harbours along with requests for more bins, bins at new harbours and additional signage. Fishermen and harbour authority feedback has been positive, and the message about the bins and education of the importance of keeping rope out of the marine environment is spreading. Partners that we are working with on this project are supportive and positive about the future of where this initiative could go within the region and throughout the Maritimes. Pickup and removal of the rope remains a challenge and a solution will be developed to move this project forward and grow it into the future. Valuable data has been collected in this first year pilot project, and has shown that timing of fishing seasons and location of bins changes amount of rope collected. One of the most important pieces of information that we have collected is the knowledge that every harbour has its own challenges and setup, and what works at one harbour may not work at another. The repurposed fishing rope workshops have been a great success with over 50 members of the community and visitors attending workshops. They are a positive and creative way to educate and spread awareness regarding dangers of rope in the marine environment and how it can negatively affect ecosystems and wildlife.

The business acknowledgement program through the #DebrisFreeFundy project grew this fiscal year, as we added more businesses to our supporting partners list and varied the scope of businesses that we worked with to include tourism companies and stores as well as restaurants. Businesses in the Charlotte County area have committed to using a variety of eco-friendly products and adapted several practices to improve their daily operations and make them more environmentally friendly. Moving forward this project could be expanded with more businesses pledging, and also widening the geographic scope. Work with businesses should continue in order to increase the practices used and spread awareness about eco-friendly choices for packaging and in the restaurant, service and tourism industry. One of the working groups that we sit on has been talking about possibilities of replicating the #DebrisFreeFundy business acknowledgement initiative in other areas or other provinces in the Maritime region.

School programs have been successful in spreading awareness and information about marine debris in the Bay of Fundy and globally throughout the oceans. Over 250 students have been reached through elementary and high schools in Charlotte County. Continued development of these programs will increase awareness and education about marine debris and ocean health.

Outreach events such as shoreline cleanups, conferences, speaking engagements and other community events have been proven to be essential in spreading the message regarding marine debris problems and solutions in the area. These events and activities are a good way to reach large numbers of people and to educate about the subject. The MDSAC brings together multiple stakeholders that are doing work surrounding marine debris and ocean health. This committee has become an effective information sharing platform, with action items resulting from objective-oriented meetings.

Appendix

1. #DebrisFreeFundy business acknowledgement eco-friendly product sample kits
2. Wharf signage for rope recycling program
3. 500+ pounds of rope collected for recycling and repurposing from harbours around southwest New Brunswick
4. Pumpkin 'monkey fist' created in repurposed rope workshop
5. Rope recycling bin located for community use and education at the Fundy Discovery Aquarium
6. Rope recycling bin located at Lord's Cove harbour on Deer Island

