

NEW OCEAN ETHIC



AN INITIATIVE OF SHOREFAST

shorefast

The goal of the New Ocean Ethic is to establish Fogo Island as a global model community for a more harmonious relationship with the ocean and its resources. For centuries, Fogo Islanders have lived in concert with the sea - a delicate and tenuous relationship that oscillates between harmony and dissonance, but is ultimately always defined by reverence. The New Ocean Ethic is led by Gordon Slade, C.M., and helps to remind us that [if we are to continue to benefit from our relationship with the sea, we must rethink the way we use its resources and exist responsibly on its shores.](#)

Careful and timely action is crucial to ensuring the long-term health and sustainability of our oceans and, in turn, the planet as a whole. The New Ocean Ethic holds key relationships with researchers, academics, practitioners, universities, organizations, communities, and other stakeholders, to build an effective and multi-faceted approach to securing ocean health.



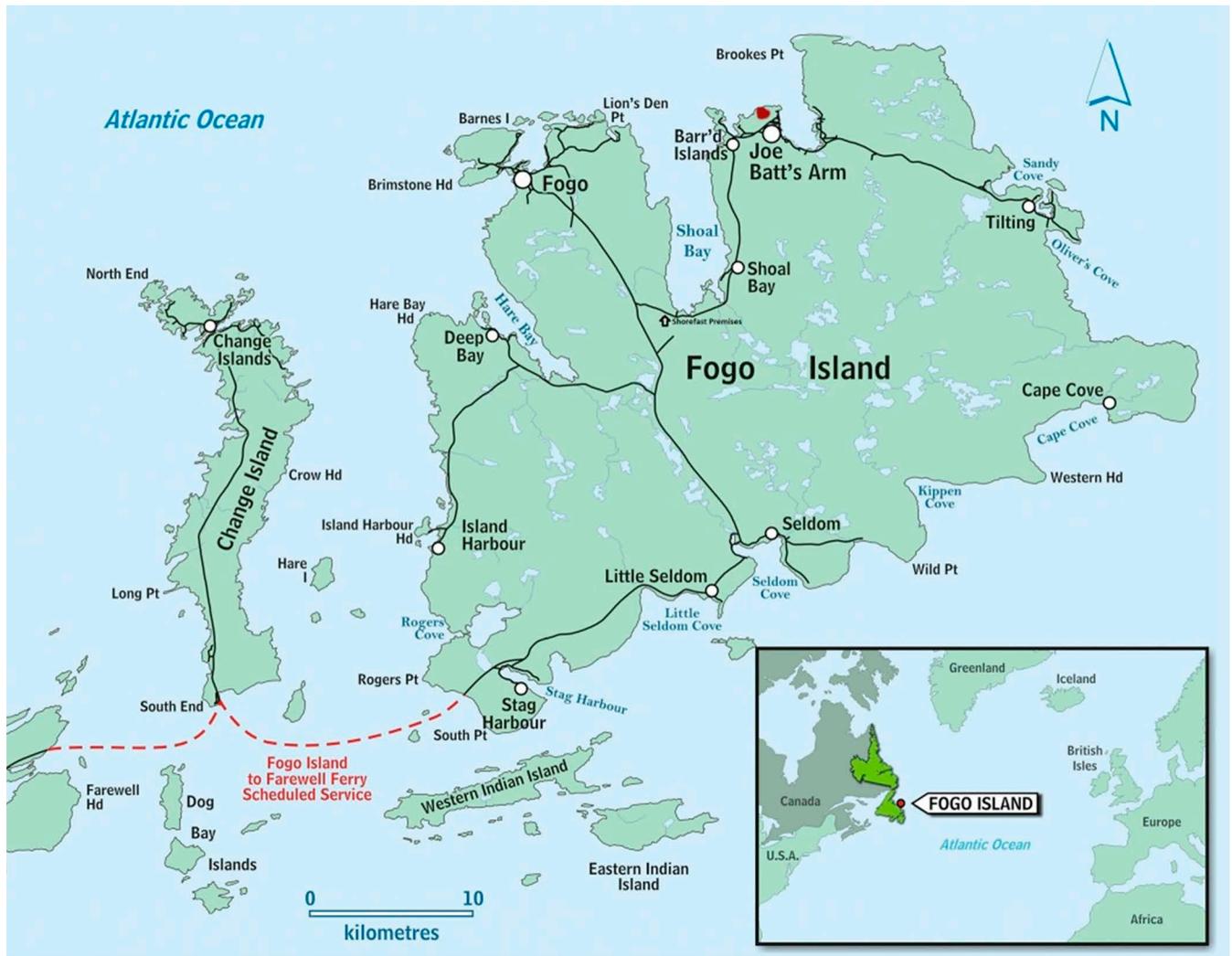
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WHERE WE ARE



INTRODUCTION

First permanently settled by Europeans in the early 18th century, Fogo Island is located off the Northeast coast of Newfoundland, Canada. The people of Fogo Island have a centuries- long connection to the sea that has been built up over generations of inshore fishing and lives lived at the edge of the North American continent. In the mid-twentieth century, factory overfishing caused a dramatic decline in commercial fish stocks, eventually leading to a moratorium on cod fishing in 1992. Almost overnight, an entire way of living came to an end. Though Fogo Islanders formed their own fishing co-op and adapted to a new, midshore fishery of crab and shrimp, the loss of the traditional inshore cod fishery combined with global climate change have posed significant threats to the Island's communities and their livelihoods.

Fogo Island's traditional inshore fishing grounds lie around an archipelago of some 100 smaller islands and islets just offshore of Fogo Island. This archipelago is also home to a rich variety seabirds, and the Funk Island Ecological Reserve in particular is a globally significant colony for murre, gannets, fulmars, puffins, and gulls/kittiwakes. Funk Island once played host to the world's largest colony of the Great Auk, which was hunted by new world settlers to extinction in the early 1800s. The Wadham Islands are home to large colonies of Atlantic puffins, razorbills, leach's storm petrels, murre, and eiders. The underwater geography of the area is equally diverse, with Funk Island Deep to the east and Notre Dame Channel to the north and west acting as "ecological hotspots" for seabirds, capelin, cod, snow crab, and marine mammals.

The aforementioned historical and continuing dependence on the ocean, along with its large and diverse bird and mammal populations, make Fogo Island the ideal environment within which to forge and demonstrate a healthier relationship with the ocean and its resources. No one sector of society can succeed alone - it is a task that requires the partnership, active participation, and support of policy makers, scientists and researchers, fish harvesters and processors, as well as businesses and the educated public. The New Ocean Ethic is structured to engage in these relationships- with each entity contributing their expertise and support with a common purpose and a shared passion for the work that needs to be done.



SHOREFAST

The New Ocean Ethic is part of an integrated, asset-based community development initiative by Shorefast, a registered Canadian charity. Shorefast's mission is to build economic and cultural resilience on Fogo Island. We envision a world where all business is social business, and our model on Fogo Island holds learnings for places worldwide. Founded in 2006 by siblings and eighth-generation Fogo Islanders Zita, Alan, and Anthony Cobb, Shorefast seeks to build another leg on Fogo Island's economy following the collapse of the traditional cod fishery that had sustained this remote island for several centuries.



Using business-minded means to achieve social ends, Shorefast describes itself as a social enterprise and has spearheaded a holistic set of charitable programs and social businesses on Fogo Island. Charitable initiatives include The New Ocean Ethic, Fogo Island Arts, Geology at the Edge, a micro-lending fund, and numerous heritage restoration projects. Shorefast is also behind three social businesses, Fogo Island Inn, Fogo Island Shop, and Fogo Island Fish, which have garnered worldwide attention as examples of business used as a tool to serve place and community. Shorefast has pioneered the innovative practice of economic nutrition labelling for its social businesses, transparently demonstrating "where the money goes."



FOREWORD

In 2015, I had the pleasure of visiting Fogo Island, the Fogo Island Co-op, and the Fogo Island Inn - one of many Shorefast initiatives that are aimed at improving the social, cultural and economic conditions on Fogo Island and contributing to its long term cultural and economic resilience. I met numerous local residents and was impressed with their energy and passion for the island and for the ocean, from which generations of residents have sustained life.

Canada was the first nation in the world to recognize in law the need for better ocean management. Sadly, today, only a little over one per cent of our oceans is protected. This is why we need a "New Ocean Ethic," which aspires to rebuild the ocean life on which Newfoundland communities, and indeed thousands of small places around the world, have depended for so long. Like Shorefast, WWF-Canada is taking action to create a world where victories for nature are also victories for people. Our commitment is to help the people of Fogo Island and other communities in Newfoundland and Labrador rebuild the historic northern cod fishery. We are also working to replenish food sources - forage fish like capelin - since without little fish we won't be able to sustain the cod or feed the sea birds and whales off our shores.

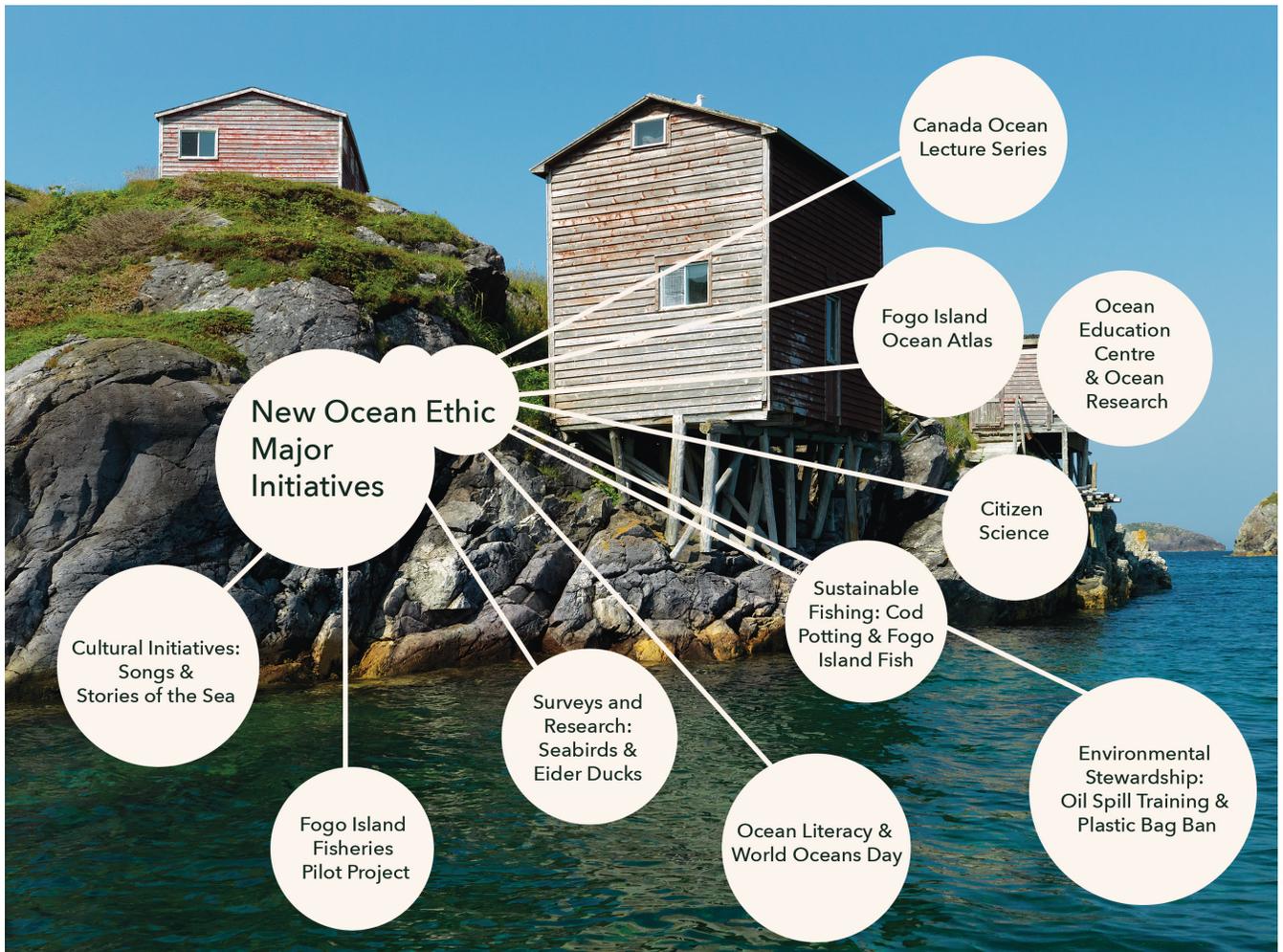
WWF-Canada and Shorefast are actively working to create a world where healthy oceans and healthy communities can both thrive. By addressing economic needs and by working directly with communities, we are laying the groundwork for lasting conservation achievements.

DAVID MILLER
President and CEO, WWF-Canada

2016

THE TEN MAJOR INITIATIVES OF NEW OCEAN ETHIC

The New Ocean Ethic works at the community level to generate global results, and consists of ten major initiatives built on three foundational elements: economy, culture, and environment.



ENVIRONMENTAL STEWARDSHIP: OIL SPILL TRAINING & PLASTIC BAG BAN

Offshore oil and gas has provided a major boost to the economy of the province of Newfoundland and Labrador in spite of volatile market price fluctuations. The Fogo Island and Change Islands archipelago is a critical habitat for large numbers of seabirds, yet until recently there were no trained oil spill first responders in the area.

The Oil Spill Protection Initiative, in partnership with the Marine Institute of the Memorial University of Newfoundland, provides training to local residents in oil spill awareness. Between 2014-2018, this initiative trained 12 local fishers in oil spill awareness, counter-measures, and first response clean-up.

Fogo Island retail stores eliminated the use of plastic shopping bags as of August 1, 2015. Plastics have been found in every body of water in the world, including the waters around Fogo Island. The vast majority of these plastics are "microplastics" that are smaller than a grain of rice and are formed when large plastic items like bags fragment or shred. These microplastics wreak havoc on marine life, as fish and birds ingest them and the chemicals proceed to leach into the food chain. Larger plastics entangle wildlife, with some of the greatest entanglements resulting from ghost fishing nets and lost fishing gear. Fogo Island's cod potting initiative and plastic bag ban are significant examples of the ways in which this Island community has reduced plastic pollution.



OCEAN LITERACY & WORLD OCEANS DAY

Ocean literacy promotes a greater understanding of, and appreciation for, our oceans within the community, aimed particularly at young people. To support a sustainable relationship with the ocean, young people need opportunities to establish the basis for technical and scientific skills early in life.

Current projects to support ocean literacy:

- Fogo Island celebrates World Oceans Day yearly with youth-focused programming
- Coastal Connections Ltd. has trained 11 local residents of Fogo Island in ocean literacy
- Youth and adults of the local chapter of Friends of Beaches participate in yearly beach clean-ups

Future opportunities and projects for ocean literacy include equipping a new Ocean Education/Marine Science Centre on Fogo Island.



SUSTAINABLE FISHING: COD POTTING & FOGO ISLAND FISH

The New Ocean Ethic has been actively involved in the creation and re-popularization of truly sustainable fishing methods, with the overall goal of eliminating all gillnet fishing over time. Cod potting has been one such innovative fishing method. It offers the potential for long-term sustainability for the cod fishery and conservation of the marine ecosystem and began as a collaboration between select fish harvesters and Memorial University's Marine Institute. Cod pots containing bait are dropped by fishers and keep fish alive until they are harvested, ensuring a premium-quality product without harming other fish and minimizing damage to the seafloor. Cod potting offers advantages over commonly used fishing methods, such as trawling and gillnetting.

- Cod remain alive in the pot for several days should weather conditions prevent fishers from retrieving pots
- Live fish ensure a top quality product when handled properly on board the boat during harvesting
- Eliminates the deterioration of cod left to drown in gill nets
- Cod pots reduce "bycatch" (the catching of non-target species); non-target fish can be released alive
- Eliminates "ghost fishing" (lost gear that continues to capture/kill fish); an escape mechanism deteriorates after a month
- Cod pots catch a percentage of fish age classes rather than targeting bigger fish through the "high-grading" process, larger fish being more likely to be successful breeders

The quality of cod pot fish has proven superior- it has been fully market tested and a number of Newfoundland restaurants have offered "cod pot cod" as a menu item, receiving great reviews. Improvements to cod pot technology will allow more cost-effective and efficient handling.

The New Ocean Ethic also operates alongside Fogo Island Fish, a Shorefast social business that is creating a new market for hand-lined cod fished one-by-one in the traditional way. The goal of Fogo Island Fish is to provide the very best product while at the same time significantly increasing the price that fishers are paid for their catch. Fogo Island Fish works with the local Fogo Island Co-Operative Society for processing, and returns 100% of its surpluses from operation to Shorefast for investment in ongoing economic development projects and charitable initiatives on Fogo Island.



CITIZEN SCIENCE

Citizen science seeks to promote the participation of members of the general public in scientific research. Citizens and scientists work together to ask pertinent questions about their local environment, decide how best to collect these data, and together, use those data to solve issues relating to environmental sustainability. Scientists benefit from data that would otherwise be difficult to collect, and citizens are better able to understand local ecosystems while contributing to the production of scientific inquiry and knowledge.

The citizen science project on Fogo Island is in its infancy, but local participants have already acquired a substantial amount of data. In partnership with Memorial University of Newfoundland, local fishers have been engaged to collect data pertaining to the health of the ocean in real time. For example, a small group of fishers collected ocean temperatures at depths up to 500 fathoms across a wide range of fishing grounds. The resulting database is community owned, and will continue to grow.



FOGO ISLAND OCEAN ATLAS

As Fogo Island fishers became interested in participating in various New Ocean Ethic initiatives, they shared with fishery scientists a series of historical logbooks detailing catch rates from the late 1970s to the mid-1990s, as well as hand-drawn maps of fishing grounds particular to the individuals involved in the study. This information will be digitized and added to multi-beam bathymetry data of the seafloor at 5m resolution provided by the Canadian Hydrographic Survey. In this way, local fishers are helping to map historical fishing grounds and species in the waters surrounding Fogo Island. The digitization and compilation of this data will provide a robust database detailing past dynamic and complex ecological interactions with the intent to inform current ones.



SURVEYS AND RESEARCH: SEABIRDS & EIDER DUCKS

The Little Fogo Islands archipelago is an important nesting ground for many species of seabirds. Over the course of several years, Shorefast has worked together with the Canadian Wildlife Service to conduct seabird surveys at Little Fogo Islands. Dr. Bill Montevecchi, a seabird researcher at Memorial University of Newfoundland, has developed a chart that illustrates the species diversity and populations of seabirds that inhabit the area. Dr. Montevecchi visits Fogo Island on a yearly basis to give public lectures.

When we speak of ducks on Fogo Island, we are referring to sea ducks, and more specifically, to eider ducks. Little Fogo Islands and the Wadham Islands located close to Fogo Island are home to the largest concentrations of wintering eider ducks in the Northwest Atlantic. These rafts of thousands to tens of thousands of ducks nest in colonies in the eastern Canadian Arctic and migrate south to winter in the Fogo Island area.

Historically, eiders have nested on many small islands around coastal Newfoundland and Labrador, and their numbers have recently been recovering following a period of decline due to better awareness, enforcement, and nest box programs. The quintessential eider down is what makes it possible for these ducks to live in the frigid winter waters of the North Atlantic. Collected sustainably from the nests in summer, eider down supports a multimillion dollar industry in some areas of the northern hemisphere. Eiders are a rich marine resource of the Fogo Island archipelago and one worth preservation efforts.



FOGO ISLAND FISHERIES PILOT PROJECT

The Fogo Island Fisheries Pilot Project links local fishers with guests of the Fogo Island Inn, an award-winning 29-suite Inn and a Shorefast social business. This partnership between the fishing and tourism industries allows guests of the Inn to accompany fish harvesters in their boats to observe and learn about the fishery and its fishers during the commercial fishing season. As non-fishers are not normally permitted aboard commercial fishing boats, the New Ocean Ethic has secured special permission to operate this programming for educational purposes.



OCEAN EDUCATION CENTRE & OCEAN RESEARCH

Innovative and consistent ocean research is vital to monitoring and maintaining ocean health. Projects under this initiative include:

- Ongoing tagging and release of cod pot cod in partnership with the Department of Fisheries and Oceans DFO
- Planning is underway to position a smart buoy near Fogo Island which would have sensors to measure tides, currents, atmospheric conditions, temperatures, salinity, etc.
- The completion of multi-beam sonar work by the Canadian Hydrographic Service to map the fishing grounds near Fogo Island

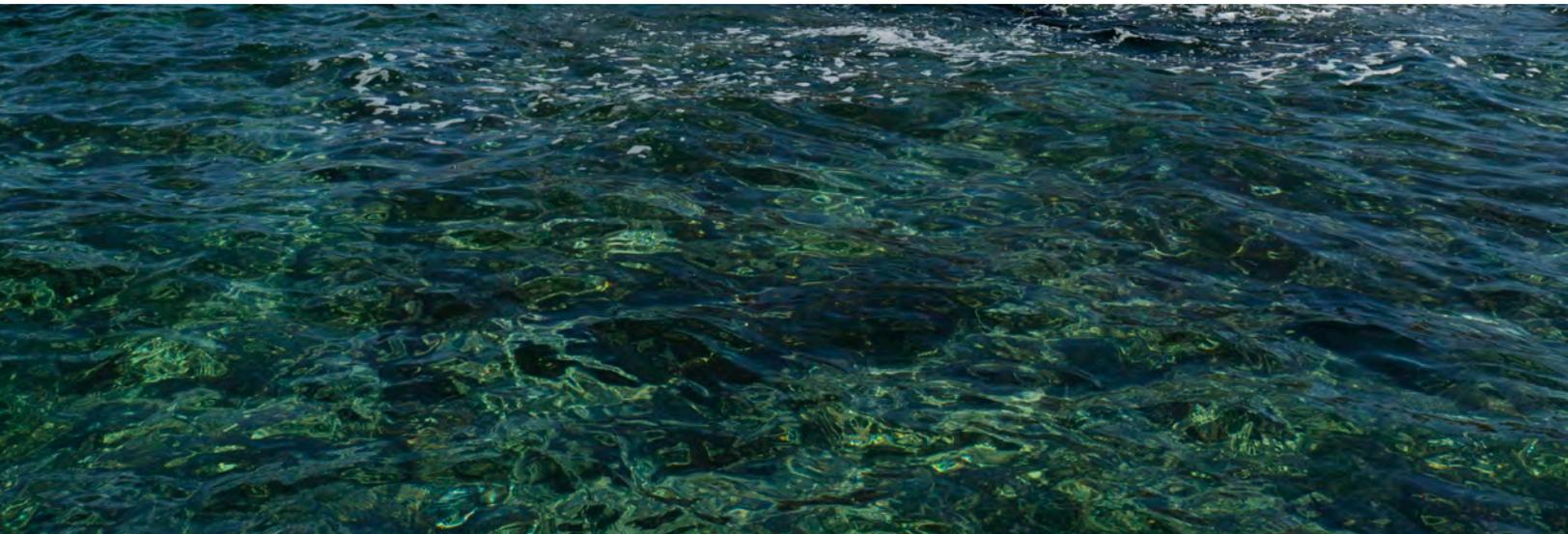
Future ocean research projects include the establishment of a Marine Science Station which would also function as a Ocean Education Centre. In addition, a partnership with the Department of Fisheries and Oceans for capelin research in the Fogo Island archipelago area is planned which would make Fogo Island a node for capelin research. Capelin are a member of the smelt family and are 20-25cm in length. Capelin are an important food source for many marine animals such as whales, seals, seabirds, and cod.

Through the New Ocean Ethic, Shorefast supports a wide range on ongoing research coming out of Memorial University of Newfoundland through in-kind donations of housing and other resources.



CANADA OCEAN LECTURE SERIES

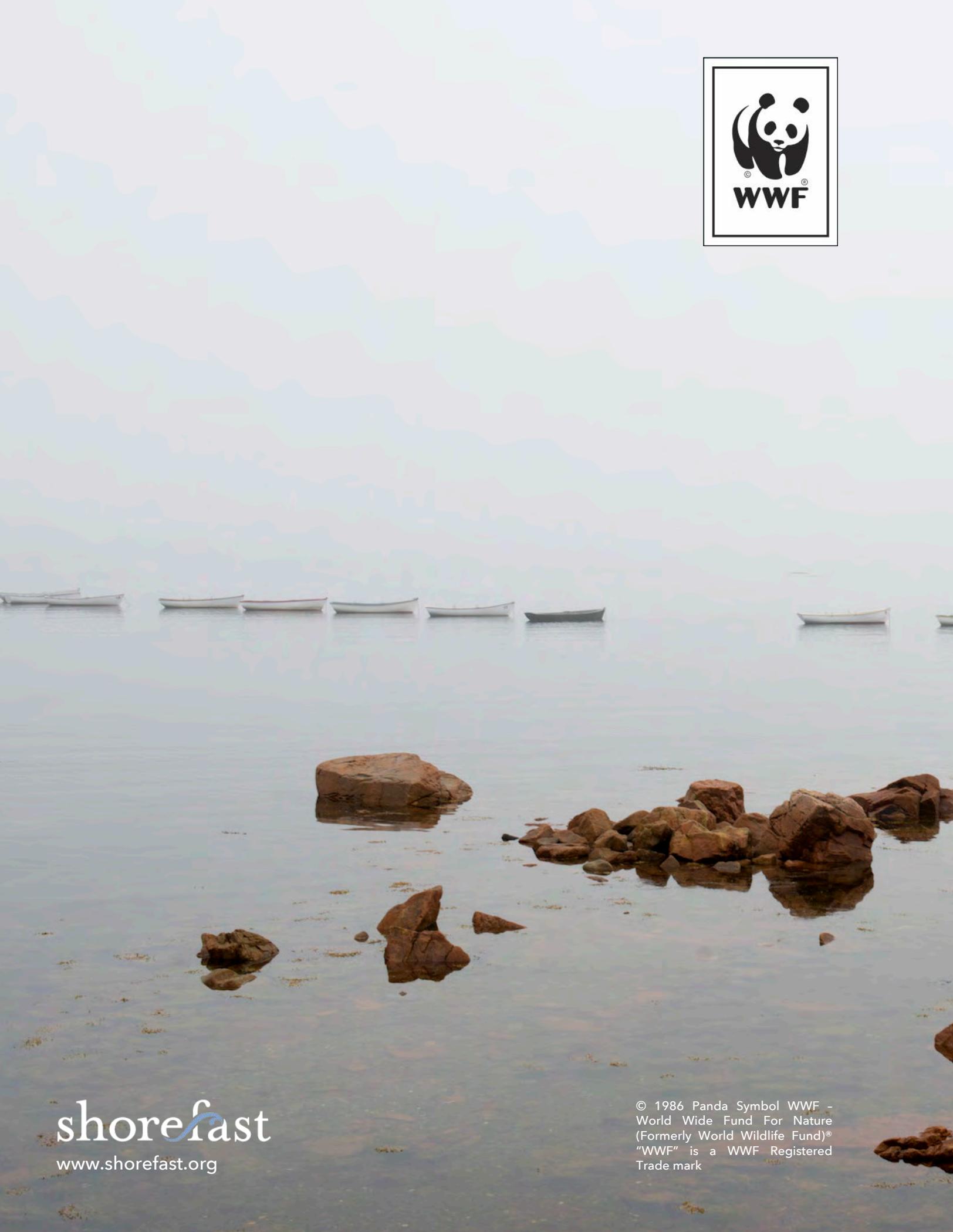
Founded in 2005 by Gordon Slade, the Canada Ocean Lecture Series had grown by 2007 into a partnership between Shorefast and Simon Fraser University, B.C. The series aims to create awareness among Canadians of the importance of preserving Canada's vast marine environment. In 2013, an address was given as part of the series by Dr. John Nightingale, the president of the Vancouver Aquarium and one of the best known and respected leaders in aquarium management in North America. The 2016 lecturer was Dr. Paul Snelgrove of Memorial University's Ocean Science Centre. Dr. Snelgrove is a Canada Research Chair in Boreal and Cold Ocean Systems and chair of the Canadian Healthy Oceans Network. In 2019, Dr. Neil Bose, Vice President (Research) at MUN, gave an Ocean Lecture Series talk at MUN's Signal Hill campus.





CULTURAL INITIATIVES: SONGS & STORIES OF THE SEA

The Songs and Stories of the Sea Initiative is in its early stages of development, and was celebrated through two consecutive yearly Spring Festivals on Fogo Island in 2016 and 2017. The Festivals showcased local songs, stories, and poems performed by the people of Fogo Island. These celebrations carried forward the intangible cultural heritage contained within our traditional entertainment, and also included conversations between local people and people from away about the Island's fishery and economy.



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