

Thisfish: Seafood Traceability Initiative

Discover the Story of Your Seafood



Final Report

for the Lighthouse Foundation

October 2011



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1.0. INTRODUCTION

1.1. PURPOSE

Ecotrust Canada submitted a proposal to the Lighthouse Foundation to request financial support in the amount of \$50,000 CAD for our work with fishing industry organizations and value chain participants to continue to design, test, and implement a seafood traceability system for fisheries in British Columbia, Canada. This report will provide a final summary of our work in this capacity over the last 19 months.

1.2. OBJECTIVES

Thisfish: Seafood Traceability Initiative was created to foster trust and authenticity in the seafood value chain and enable consumers to make more informed choices about the seafood they purchase and eat. This system rewards fish harvesters, processors, restaurants and retailers who are committed to promoting quality, sustainability and storytelling in their seafood products.

Ecotrust Canada designed the system with the following principles in mind:

- Be cost effective and financially self-sustaining in the long-term, avoiding cost burdens for fishermen
- Provide tangible benefits to small-scale producers, fishermen, businesses, and fishing communities
- Meet regulatory requirements for seafood traceability
- Share the benefits of seafood traceability fairly throughout the supply chain from fishermen to retailers
- Promote collaboration and transparency in the supply chain through partnerships and the use of open-source software
- Satisfy consumer demand and curiosity for knowledge about their food

The grant request was meant to advance our traceability technology to move British Columbian fisheries into the growing market space for traced food products. This includes improvements in design, testing and implementation of fishery specific tag designs, tagging methodology, traceability data management and analytics, web applications and social media. The grant will also be put towards creating content and developing training packages for fishermen and seafood businesses. These improvements will ultimately direct the program towards a model that is self-financing, as this is essential for the system to function in the long-term.

2.0. INDUSTRY PARTNERSHIPS

In our initial proposal in 2010, we set out to develop a complete package for implementing pilot traceability systems with participating fisheries. We detailed 5 developments with regard to industry partnership.

Industry workshops and training sessions

Several meetings and training sessions with industry partners have occurred since being awarded the Lighthouse Foundation grant. Our team has met with and trained seven processors/ buyers, three new offloading companies, and two new distributors since being awarded the Lighthouse Foundation grant. Meetings and training sessions with multiple seafood businesses are in the planning stages and will occur within the year.

Training curriculum development

We are in the process of finalizing training videos for harvesters and processors. These videos will be/ are available on the website, with a how-to option at almost every step in the data entry process.

Methodology for product tracing from the boat through the value chain to the consumer, adapted to each fleet and value chain

Our methodology was created in a learn-by-doing process; we have had procedures developed and in place for sequential catch coding of individual fish at the harvester level since early in the year. After a thorough examination of the potential issues that might arise within the system we are now finalizing our standardized tracing methodology for batch and lot coding, along with procedures throughout the various levels of the value chain including processor, distributor, and retailer. This modified methodology will slowly be introduced into the system over the reduced-fishing months of winter to allow the key players to become accustomed to the changes.

These changes include creating a coding system for seafood products that cannot be individually tagged. Serial/ individual coding makes sense for large, high-priced species such as salmon, lingcod and halibut. Smaller or less costly species such as spot prawn or haddock make more sense to code as a tote or a batch. It would be extremely tedious and expensive to individually code each one of these species, and that cost would likely filter down to the fishermen, who already shoulder a heavy financial burden. Lot or batch coding requires a more complex system tracking system because the tag does not follow an individual fish to the market. We have worked hard with fishermen and industry to create a viable, verifiable system that allows us trace each batch of seafood product back to the individual harvester.

The incorporation of each pilot into the traceability technology platform and social network including the profiles and storytelling of participating fishermen

Every pilot has been created within the framework of the Thisfish website, which is then intrinsically incorporated into the traceability technology platform and social network of profiles and storytelling of participating fishermen on the website.

Traceability kits inclusive of program outline, instructions, and supplies

Thisfish Terms of Use and Privacy Policy have been created for each level of participant. We are currently in the process of incorporating them into common usage. These Terms of Use describe the program in detail, including security of information, costs, objectives, disclaimers, and minimum data requirements.

In addition to the Terms of Use, we also have information packages for each level of user, which detail the specifics of the program, i.e. core principles, objectives of the program, what is expected of the user. The Thisfish website itself is also used as part of the traceability kit.

Upon joining to the program, harvesters or processor will receive supplies specific to their fishery; these will be replenished as needed. Fishermen engaged in fisheries that require individual tags will receive serial tags, tagging guns, fasteners and replacement needles for tagging guns. Fishermen engaged in lot-coded fisheries will receive rolls of coded stickers and log books to document their traceability information.

3.0. Traceability from Ocean to plate

Ecotrust Canada's seafood traceability system is the first of its kind in that it is designed to trace seafood from the ocean to the dinner plate, allowing consumers to connect directly to those in the value chain right down to the fish harvester, but Thisfish is not just a traceability and social marketing initiative. These tools are key service pillars however, they are only the means of fundamentally changing how we think of, communicate about, market and consume seafood. By providing consumers, restaurants and retailers with detailed information about their seafood, we are facilitating their ability to communicate in a more sophisticated and meaningful way about the seafood they eat and thus, make informed choices with their purchases.

Further, this initiative is designed to integrate regulatory standards, such as ensuring that government inspectors can trace food products to ensure public safety, facilitate recalls or meet EU regulations on illegal, unreported or unregulated (IUU) fisheries but it is not solely about satisfying regulators. This traceability system goes beyond their objectives, and looks at maximizing value for industry and for consumers, engaging multiple communities of interest around the seafood we eat. As Thisfish grows it has the ability to contribute to an entirely new way the average consumer thinks about seafood and ultimately the eventual deconstruction of highly commodified product.

3.1. Fish harvester

Each fisher harvester is pre-assigned a series of sequential numerical codes. Upon unloading of catch, each individual fish or batch of fish is tagged with a numerical code. The harvester, or a harvester-approved third party, will upload those codes to their personal profile on the Thisfish website. Traceability information including where the fish was caught, the date it was unloaded, the species, the vessel it was caught on, and the fishery will also be included. This information can be correlated to landing slips or other official documentation. Now this data is linked to the code and will follow that fish or batch of fish throughout the supply chain.

The fisherman can modify their personal profile within the confines of the website. They can upload photos to their photo gallery, including pictures of their family or the crew of the vessel. They can add a link their own website or display their own unique brand. They can tell the story of the seafood product.

The website supplies the harvester with information about where their fish is being traced and how often their specific profile is being viewed. They can receive direct feedback from consumers; this truly connects the public to the origin of their seafood.

The number of fish harvesters involved in Thisfish has increased dramatically in the past year and a half; the number has tripled from 60 fish harvesters in February 2010 to 299 harvesters as of October 2011 (Figure 1).

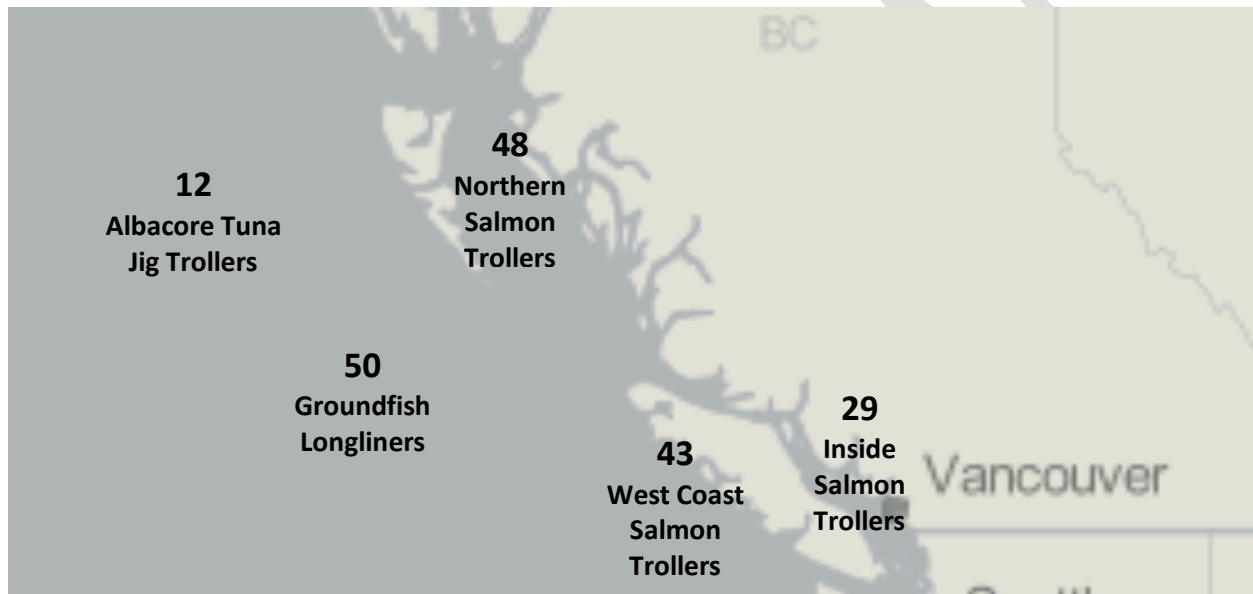


Figure 1 Registered Online BC Fishing Vessels

This September we partnered with a Dutch fishing crew as part of the Thisfish Netherlands Pilot Project. These fishermen engage in a traditional method of fish harvesting that is reported to be highly sustainable and have had tremendous success marketing their traceable product with local retailers and restaurants. Their success has opened the door for more international fishermen to engage in the program.

3.2. Processor/ Wholesaler/ Distributer

Fish brokers, processors, wholesalers and distributors can choose to become part of the chain as well, and there has been growing interest from a number of new seafood businesses in the past twenty months. There are a multitude of benefits that seafood businesses can garner from joining the program, such as cost-effective advertising; however, the biggest push has come from consumers and retailers. The public is hungry for high quality, sustainable, traceable seafood. As we move into testing batch coding for processed fish, there is a requirement for others in the value chain to engage, unlike individual catch coding where the code is affixed at the harvest level to the product and the rest of the chain's engagement is voluntary

3.3. Retail/ Restaurant

Retailers and restaurants have become increasingly more involved in Thisfish over the past twenty months. Sobeys and Thrifty Foods have embraced the concept and have created a business plan around selling only Thisfish traceable seafood. This has manifested in a huge commercial demand for traceable product from those fishermen involved in the program.

More restaurants and chefs have gotten involved in the program as well. Vancouver now has eleven restaurants featuring Thisfish seafood, with Toronto following close behind with nine. Chef Rob Clarke of C Restaurant in Vancouver regularly uses Thisfish seafood and has starred in a number of Thisfish informational videos.

Thisfish was featured at the food festival Right Some Good this summer in Nova Scotia, where ten world class chefs used regional, sustainable ingredients in their creations for festival goers.

3.4. Consumers

Consumers are the last stop in the supply chain. At the grocery store, consumers can receive the codes associated with product either directly from the clerk at the fish counter for fresh product, or on the packaging itself if they purchasing from the frozen food department. The consumer can either take that code home and look it up on our website or they can use their smart phone and access the information before they buy the product at the grocery store. This last option allows the consumer to make purchasing decisions based on up-to-date information about the fishery the product came from.

Consumers have been tracing their seafood products at an increasing rate in the past year (Figure 2). The reasons for this are many, but in general the public is becoming more inquisitive about the origin of their seafood. Another reason is that more seafood is being coded so there are more opportunities for tracing activity. Furthermore, there has been myriad of media coverage regarding Thisfish, resulting in more public awareness of the program than there has been in the past.

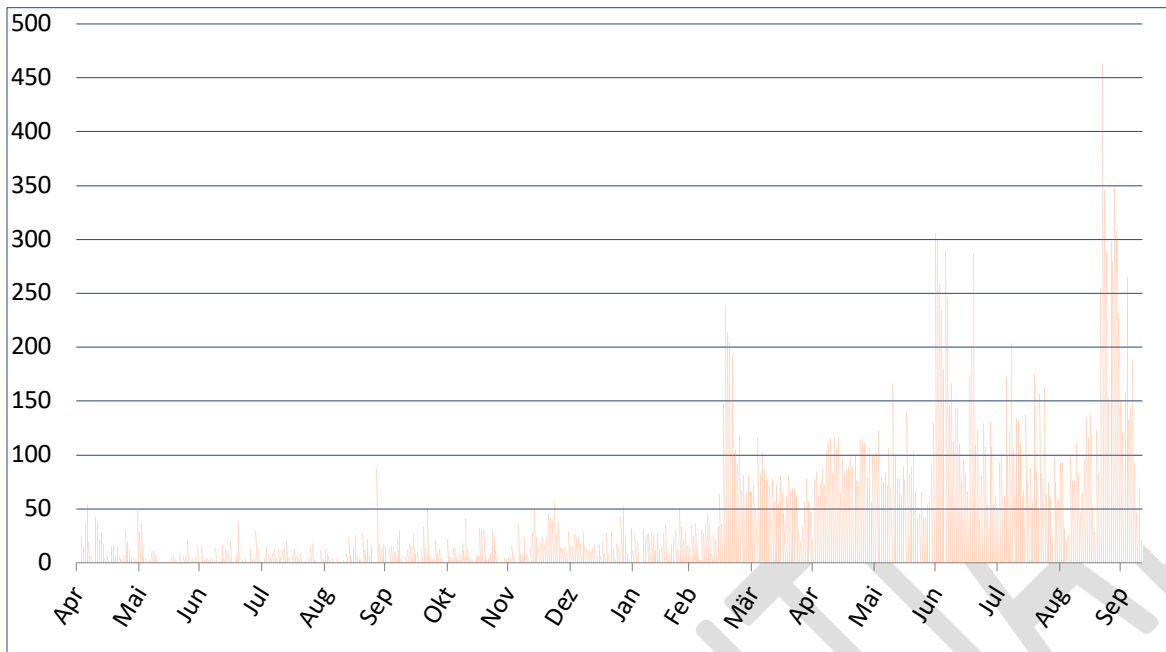


Figure 2. Daily tracing activity: 2010-2011

Consumers can also now engage directly with fishermen through an integrated messaging service. For both fishermen and consumers this has been a huge success and a key element for personal reward for the extra work.

4.0. TECHNOLOGY AND FEATURES

Our team employs the most up-to-date open-source software and social and mobile media technology to allow consumers make knowledgeable choices regarding their seafood purchases. The most notable technological advancements in the past year have been the launch of the new website and the development of the smart phone application. Consumers, fishermen and businesses along the supply chain have been able to take advantage of the following features.

4.1. Website and Social Networking

If a fisherman, processor, retailer or a restaurant would like to be involved with Thisfish, the first step is to register with the program. At that point the user will create their profile on the website. This profile allows the user to upload video and photos, include links to different websites, and add user information and a public greeting (Figure 3).

YOUR
PROFILE

This is your profile. Others may only see parts of it, depending on your [privacy settings](#).

EDIT PROFILE

NEED HELP? [Watch the tutorial](#)



FISHERMAN PROFILE

Captain Chris
Hudson

FISH HARVESTER, NS, CANADA

HOME PORT	Victoria Beach
YEARS FISHING	24
VESSEL	Fundy Viper II Length: 44.0 feet Year Built: 2004 Hull Type: foam/glass composite
CREW	Eddie Hudson Shawn Mc Grath Michael Johnston David Gregory
FISHERIES	Bay of Fundy - LFA 35
CONTACT	Chris Hudson fundyviper@eastlink.ca Victoria Beach, NS 902-532-7118

I've been fishing all my life- I love it- and can't imagine any other job. I started off clamming when I was a teenager, then I took a job on a scallop dragger for awhile and saved my money to buy a lobster license. I started off with an open rowboat fishing wooden traps - over the years the boats got bigger and the so did the catches! I mainly lobster fish but also have handline and longline licenses for ground fish as well as a swordfish harpoon license. When I am not fishing, I volunteer alot of time helping out various organizations and associations that deal directly with the conservation and preservation of the fisheries , such as the Lobster Council of Canada, Cura, Off the Hook. community supported fishery, This.fish, Bay of Fundy Inshore Fishers Assoc. and Fundy Fixed Gear Council to name a few hoping to ensure that our fishery remains a healthy one and a viable way of life for future generations. If you would like to leave a comment or email us at fundyviper@eastlink.ca we would love to hear from you!

Figure 3. Profile as seen by user

Thisfish has also branched into the social networking tool, Facebook. Fans of the program can “like” the page and receive updates about the program (Figure 3). The program has garnered hundreds of fans of traceable seafood; some have even taken to calling Thisfish “Fishbook.”



Figure 4. Thisfish Facebook page receives comments from as far away as Belgium.

4.2. Online Traceability Tool

The launch of the new version of the website this summer was a major milestone for Thisfish. Our programmers created a more streamlined, user-friendly, and aesthetically-pleasing website that built upon what we've learned from the Beta version. There are two sides of the website; the public-facing side and the user-facing side. On the public side, a consumer can trace a code and find out information about the fish, the fisherman, the fishery, recipes, seafood shelf lives, and program details (Figure 5).

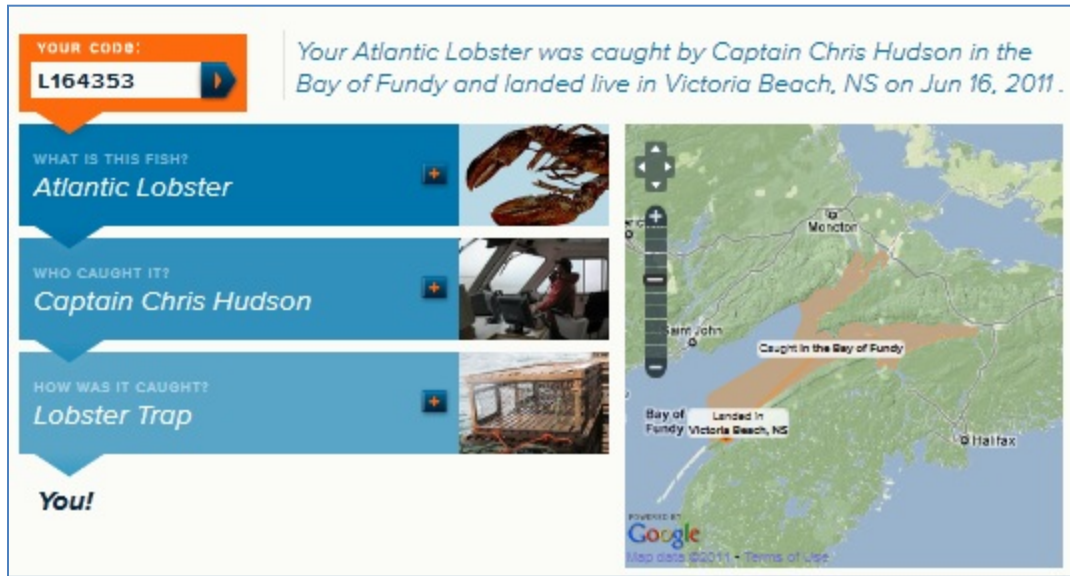


Figure 5. Tracing a code.

The user-facing side is where a fisherman or other value chain participant can enter their traceability data and look up their personalized traceability analytics. Figure 6 is a screen capture of the page a harvester or processor will use to input the harvester level traceability information.

The screenshot shows the 'CATCH ENTRY' form on a website. The header includes the logo 'CATCH ENTRY' and contact information: 'Fill out the form below with information about your recent catch. If you need to alter or delete this catch entry, contact Thisfish at (604) 682-4141 or catch@thisfish.info. NEED HELP? Watch the tutorial'. A note indicates '* = Required Info'. The form fields are:

- * CATCH CODE(S): A text input field with a placeholder '...' and a sample text 'Erat eget elementum volutpat, dolor nisi porta neque, vitae sodales ipsum nibh. ie) H12000-H12100, H12500-H12600'.
- * VESSEL: A dropdown menu.
- * FISHERY: A dropdown menu.
- * FISH: A dropdown menu.
- * PRODUCT STATE: Radio buttons for 'Live', 'Fresh', and 'Frozen at Sea'.
- * FISHING AREA: A dropdown menu.
- DATE CAUGHT or Trip Start Date: A date input field with a 'Today' button and a calendar icon. A note says 'Enter the date of catch or if you are entering catch from multiple days of fishing, enter the date you started the trip.'
- * DATE LANDED: A date input field with a 'Today' button and a calendar icon.
- * LANDING LOCATION: A dropdown menu.
- * SHIPPED TO: A text input field with a placeholder '...'.

Figure 6. The website provides an online tool for fish harvesters and chain-of-custody operators to upload and manage their traceability information

The user profile has a personalized traceability function; a map was built into the website which shows the user exactly where their product is being traced. We have also added a chart that displays how often their profile is being viewed by the public. Furthermore, consumers can write messages to the harvesters and processors of their seafood (Figure 6). This provides the user with sophisticated market feedback they might not otherwise receive.



Figure 6. Online analytics tool allows fishermen to monitor tracing activity and receive market feedback

4.3. Mobile Application

The mobile application for Thisfish was launched in mid-October, 2011. Consumers are now able to trace seafood products at the grocery store before they buy or at the restaurant before they order a dish (Figure 7).

The smart phone application will work on iPhones, Blackberries, Androids and any other smart phone that will support a web browser.

We are currently researching quick response, or QR codes, and their applicability to Thisfish. QR codes would allow consumers to simply wave their phone above the code and receive traceability information. QR codes work by automatically opening a web browser to the Thisfish website and inputting the code on the product. This method of tracing seafood products would essentially eliminate the occurrence of consumer error.

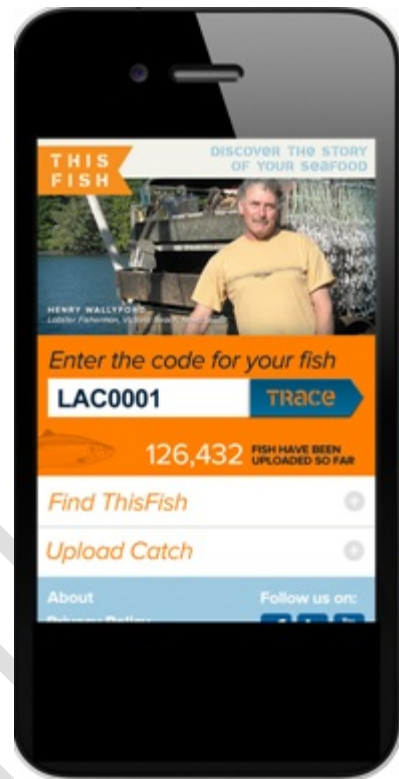


Figure 7. Thisfish mobile application code entry page

5.0. SKILL DEVELOPMENT AND TRAINING

Fishermen are the most important user of the program; it is only through their participation that the full set of traceability information is uploaded and validated. The average fish harvester is between the ages of 38 and 56; they are potentially less tech-savvy as those in their 20s, to whom social media and mobile applications are commonplace. As such, skill development and training are vital to the success of Thisfish.

Skill development and training range from one on one information sessions, over the phone technical support, group training sessions, training videos, to online guides when a user logs on to their profile on the website. Eventually the program will veer away from one on one training sessions towards group sessions, training videos and online guides to keep the cost of the program low, but there will always be individual technical support to those who require it.

6.0. BUDGET

See attached

7.0. CONCLUSION AND NEXT STEPS

Thisfish continues to meet the original objectives in the Lighthouse Foundation 2010 proposal of creating a cost-effective, fisherman-focussed seafood traceability program that can be used as a template for the new fisheries that are becoming increasingly interested in the program.

It is this interest that has made Thisfish the most successful seafood traceability program of its kind in Canada. This success is measured in harvester engagement, seafood business buy in, and consumer demand. Thisfish provides a framework within which local fishermen and seafood businesses that are committed to sustainably-caught, traceable, quality seafood can be rewarded for their efforts. An inclusive and transparent system is evolving that allows seafood to be traced from the ocean to the plate; providing consumers a unique view into the origin of their seafood.

The success of Thisfish has been facilitated by the technological advancements in our website development, online traceability tool, and the new mobile application. The combination of these advancements and the engagement of the fishermen and processors have placed Thisfish at the head of the pack in the field of consumer-facing seafood traceability.

However, Thisfish is far from having solved all challenges. We are now entering a critical phase of the program. There are a number of key activities necessary over the next few years to cement the program and allow it to meet its potential and grow its impact. These include:

- We must implement a business plan that will allow the program to function as its own entity that is self-sustaining, has a strong revenue model, has a sound governance structure, and adequate capacity over time.
- We must further develop our complex coding systems and procedures for different product types.
- System enhancements have to be created that will further the functionality of the program; this includes meeting newly identified needs of industry as well as ensuring the system will meet regulatory needs for data collection as new policy is put in place.
- Expansion of pilots/tests for new fisheries in new regions with new partners on the ground are required as well as added support such as new fisheries research and translation to new languages. There is a great amount of expressed interest from other regions and fisheries and the capacity needs to be developed to support their request to engage in testing this methodology and tool in new environments.

These next steps will catapult Thisfish into the common lexicon of Canadians and regions worldwide and will allow consumers to make informed, responsible decisions about their seafood and its sustainability.