

The Barriers Preventing New England's Finfish from Entering the Market and How to Overcome Them

Introduction

This report is the result of qualitative interviews with various members of the seafood supply chain. The purpose of our interviews was to better understand the current challenges that prevent regional seafood from moving into the marketplace, and also where there are opportunities to improve the system. In particular, we were interested in talking with fishermen about challenges they have experienced in trying to move more product into the market. Our goals were to interview three fishermen and three seafood processors in each of three different port areas (Portland, ME, Gloucester, MA, and Chatham, MA). We also intended to interview three major buyers from the region in different types of market outlets (retail, restaurant, and institutional foodservice). All interviews were conducted in person, with the exception of one that happened by phone. We traveled to Massachusetts to interview people in their home port or at their place of business. This report contains a summary of the technical and adaptive challenges we heard about from people at every point of the supply chain, and ideas about what is needed to address these challenges.

Overview of Interviewees

Fishermen

We interviewed nine fishermen from Portland, Gloucester, Chatham, and southern Massachusetts who represent a range of commercial fishing businesses, as well as one staff member of a fishing association. Our sample included small and large boat owner-operators, captains, and crew who target a range of Gulf of Maine species including groundfish (e.g. haddock, cod, flounder, pollock, redfish), mackerel, scup, black sea bass, dogfish, and bluefin tuna. To target these species, these fishermen use a range of fishing gears including trawl, weir, jig, gillnet, and rod and reel. While we found some unique port-specific challenges, there were several overlapping themes that arose over the course of all our fishing industry interviews.

Middle Supply Chain (Processors)

We interviewed seven processors and businesses in the middle of the seafood supply chain in Portland, the Gloucester area, as well as processors active in Chatham and southern Massachusetts. The businesses we interviewed vary in size and in the scope of species they focus on, but all are involved in processing fish and purchasing fish directly from boats. Unlike the agricultural sector in New England, where the availability of processing for cattle, pigs, and poultry is minimal, there are still many seafood processors active in New England. Apart from the very large volume lobster and scallop industries in New England, the larger processing businesses have been able to grow larger by diversifying to meet the demands of the global marketplace – which has meant importing product from other parts of the world, and other parts of the country, to process and sell. Other processors in the region, often more mid- or small-scale, have remained more reliant on New England seafood. Of the processors we interviewed, five are reliant on New England seafood for the majority of their business, and two have a broader product offering including both New England seafood and other domestic or imported seafood.

These processors discussed a wide range of challenges, and many of the challenges are shared across the region and across varying sizes of processing businesses. Opportunities exist for this part of the seafood industry to work together on issues of mutual interest.

End of the Supply Chain (Buyers)

We interviewed one major retailer and one major foodservice management company that are active in New England. Despite running very different types of operations, they shared many similar challenges and interests when it comes to regional seafood sourcing. In particular, they face similar challenges in accessing the quality and consistency of local seafood that they want, and in educating their customers (consumers) about eating and cooking local seafood, particularly non-traditional, underutilized species.

Supply, demand, and quality challenges

Many of the challenges put forth by fishermen, processors, and buyers were market-based issues that represent adaptive challenges, or challenges that require a change in behavior and/or mindset from multiple players in the market. The biggest overarching challenge the finfish industry (which includes groundfish like haddock, flounder, pollock; and other finfish like mackerel, black sea bass, dogfish, and bluefin tuna) faces is competing in a global marketplace, and in particular, competing with imported products that have replaced local finfish on restaurant menus, in grocery stores, and in cafeterias.

Variability in supply and quality

- **Inconsistent availability:** The biggest challenge named within this global market by fishermen, processors, and buyers was the inconsistent availability of finfish from our region, making it hard to (re)establish and maintain space in the marketplace.
 - Other larger fisheries from overseas and Alaska provide the marketplace with a consistent *supply* of finfish, and the *quality* of that product is also consistent and predictable. Some processors expressed that access to local supply was not an issue, but others said there are challenges in trying to create markets for regional finfish due to lack of consistency in quality and in the quantity/timing of fish being landed.
 - Buyers expressed that promotions are one way they can increase the sales of certain types of seafood, but due to the inconsistency in availability of local product, it is harder to plan for and promote local finfish.
 - Buyers also shared that they would like to better understand the nuances of seasonality and peak availability times for certain local fish, so that they could better anticipate possibilities for sourcing and promotion. They have been able to build seasonal promotions around higher volume, well-known local species like lobster or scallops, and can see that there is potential to build better awareness of other local fish seasonally.
- **Capacity (or lack thereof) to be flexible:** Inconsistency is directly connected to the challenge of aligning supply of and demand for regional fish, which was mentioned by nearly all the processors we spoke to.
 - Managing a variable supply is challenging. When supplies are low, it drives processors and buyers elsewhere to fulfill orders and makes it hard for the marketplace to rely on product from our region. When supplies are high, it is difficult for processors to be ready to expand their operations, and buyers are not necessarily ready to absorb a sudden influx of local product when they have already planned to have other product on offer.

For a processing plant to run successfully, consistency is required in terms of steady work and hours for employees and the overhead involved in operating a plant (running equipment, electricity, water, etc).

- For large buyers like retailers and institutional foodservice operators, there is a need for certainty that they will have product when and where they need it. They can be flexible to a degree, but they also do a lot of planning to ensure that they will have the right amount of product on hand depending on the day of the week or the season.
- Buyers also expressed that they have to balance the commitments they have made to their suppliers and sources. For example, if a buyer decides to replace an imported product with a local fish, but then that local fish is inconsistently available, the retailer might still need that imported product sometimes. Yet the supplier and source of that imported product might go elsewhere to find more reliable buyers and the retailer might have less certainty about whether they can access enough product to fill in the gaps when the local product is unavailable.
- **Quality:** Processors buying directly from boats (as opposed to buying lots through one of the auctions) expressed the supply/demand challenge involved in buying “the whole trip” – there is often a range of quality in the catch from a single fishing trip, and a processor buys the whole trip in order to maintain the relationship with the fisherman. Then the processor needs to find a home for all of that fish. Only a portion of it might be high enough quality for a retail market or a high-end restaurant. If the processor has to sell some of the catch to lower end markets, like bait, that means low prices to the fisherman *and* the processor. No one is making money on poor quality fish, but there is currently a lack of incentives for fishermen to take better care of their fish. Some fishermen reported to us that when they have tried to improve quality and handling on their vessels, processors have refused to commit to paying more for the better quality product. What processors have told us in response to questioning about this is that it’s difficult to commit to a higher price in the short term when there are so many other factors influencing the market price on any given day. They would need to take the time to build a market opportunity for that higher quality product, including a buyer willing to pay a higher price, and they would need to be confident that the fisherman is going to maintain high quality over time. Despite this challenge, some processors have worked directly with fishermen to improve quality, going so far as to provide ice and specific (smaller) vats or totes in order to maintain higher quality of the fish.
- **Freezing fish:** The question of whether this region should be freezing more fish in order to manage the availability of regional finfish elicited doubtful responses. Imported finfish is frozen, which is part of what allows for more consistent availability, inventory management, and the ability to plan. There is interest in replacing that frozen imported product with local product, but not necessarily with *frozen* local product.
 - Buyers acknowledged that there is not much high quality frozen local fish available, but also that they would prefer to have fresh local fish rather than frozen.
 - Processors pointed out that there is a range of quality that can come from freezing fish, both in terms of the equipment used and the quality of the fish before it’s frozen, and *how* a fish is frozen matters greatly to the question of whether we should freeze more local fish.

- Processors were also quick to note that freezing a fish causes it to immediately lose some value, because prices in the frozen market are different than the fresh market. (Prices are generally higher in the fresh market).
- In order to justify freezing, there also has to be enough volume landed at a consistent quality. Having the occasional large volume of landings does not necessarily justify the investment in freezing equipment if it's only going to be in use here and there.
- New market outlets would have to be created for frozen regional groundfish. This includes re-educating consumers about frozen local fish, as the buyers believe their consumers have a bias for wanting local fish to be fresh.
- Finally, we talked about many different species of finfish with the processors we interviewed, and one theme that came up is the challenge of haddock. New England's haddock quota on Georges Bank is both very large and significantly underharvested (8% of the quota was harvested in fishing year 2017). Haddock competes directly with much larger haddock fisheries in the Barents Sea, as well as with Canadian product harvested just over the Hague Line (with help from subsidies from the Canadian government). Processors expressed that there is a need to build a market for the smaller fillets that we have here, which requires buyer and consumer education.

The vicious cycle here is that processors can't ramp up their operations to buy and sell more fish from the region without spending time building market awareness and opportunities, and the fishing industry can't ramp up landings of underharvested species if processors and the market aren't ready to take their product.

What's needed?

Improvements are possible on these issues, but changing the status quo will require the industry to work together to coordinate and pilot efforts to improve quality and consistency. No one entity can do this on its own, because everyone is dependent on the actions of other players in the supply chain. There must be coordination and cooperation.

Another opportunity here is to better understand quality in tangible, concrete, and quantitative terms. Without specifications in place, quality is a very loose and subjective thing that means something different to everyone. There is a need for fishermen, processors, and buyers to speak the same language when it comes to quality, if the industry wants to improve across the board and have a better product to bring to the marketplace. This includes understanding the quality of both frozen and fresh product.

Fishermen Selling Directly

Most of the fishermen we interviewed indicated some interest in selling their product directly to consumers or directly to a buyer like a restaurant or a college dining hall. While their interests varied in terms of how much direct marketing they want to do, there was an overall lack of clarity around the appropriate permits and regulations that they need to follow for different paths to market. In some cases, where fishermen had reached out to local, state, and/or federal regulatory agencies, they were given conflicting information. It's unclear whether regulations exist around some of these questions and if so, to what extent local, state, and federal agencies communicate/coordinate amongst themselves. As

part of the technical research component to this work, we plan to investigate the necessary permits and relevant regulations to provide fishermen with clear guidance on each scenario.

Below are examples of the different ways fishermen expressed interest in selling directly to customers:

- The simplest option fishermen shared with us is to sell directly from their vessel. This lends itself well to selling small volumes of fish to local consumers, and possibly restaurants. However, it can be challenging to get buyers to come to the boat to purchase the product, especially when considering how to coordinate around restaurant and fishing schedules. Additionally, this requires customers to be comfortable purchasing whole fish.
- Another option some fishermen are interested in is to transport whole fish to buyers like restaurants, or even more directly to processors that are normally purchasing from another middle man. In addition to the proper permits and food safety regulations attached to transporting seafood, in Massachusetts this option also requires that fishermen invest in a refrigerated truck and potentially other equipment for transporting their fish. Additionally, it requires time spent on logistics and planning after a fisherman returns to the dock.
- Going a step further, another option for fishermen is to cut/process and transport their fish themselves. This would require not only an investment in a refrigerated truck but also in fish cutting equipment and space that meets food safety standards – both major investments.
- Fishermen can also opt to contract out the fish cutting and or transporting of their products, but maintain the direct relationship with the buyer. By contracting out these services, fishermen lose a certain level of control in the process and the end product. Adding cutting and or trucking costs will also cut into potential profit margins but would free fishermen from some of the administrative burdens of cutting and transporting their own product. It can be difficult to find a processor interested or able to take on this kind of contract work.
- There was not great interest in selling at farmers markets from the fishermen whom we spoke with.

One common overarching concern in selling product directly was the possibility of losing established buyers or relationships with the auctions. We discuss this further in the “Relationships” section below. This concern varied by port and depending on the fishery that each fisherman was involved in. The greatest concern came from those involved in the groundfish industry, who are much more tied to the auction system.

What’s needed?

Some of the permits and regulations are well understood by the fishermen we spoke to, and some regulations appear to be gray areas (both for the fishermen and the regulators). Research is needed into the permits and rules that fishermen need to follow in each of these possible direct marketing structures. It’s also possible that there are opportunities to work with the state and local regulatory agencies to increase clarity and to increase the regulators’ understanding of the risks (or lack thereof).

Price

Among the processors we spoke with, there were a variety of different ideas that came up about the price per pound fishermen receive and how to increase the price to fishermen. In general, there is a recognition that when fishermen are getting a low price per pound, it is hard to incent them to take better care of the fish or even to take the trips to go fishing in the first place. Overall, there was interest

and activity in creating price floors for fishermen, but a general unwillingness to create artificially high prices that are not driven by a market force. There have been individual projects over the years that have subsidized or artificially paid a higher price to fishermen, but these efforts have not had staying power.

- **Paying more for quality:** Most processors expressed a hesitancy to pay one boat a better price over another for a better quality product. Processors fear that other boats will then want a higher price, without necessarily having the higher quality, and that this will upset other processors – both because they are losing out on the higher quality fish, and because it will change the pricing dynamic for the whole market. While it might seem like this should come down to basic competition in a free market, processors buy and sell from *each other* to manage their supply and demand, and so there is an unwillingness to upset the balance of relationships among these businesses. They also expressed that in order to justify paying higher prices for better quality, they need to see that quality consistently, in order to build a customer base for it and be able to justify the higher price in the long run, not just here and there.
- **Bonus or dividend programs:** One idea raised by multiple processors to remedy this situation is bonus or dividend programs. They believe it might be easier to create a program where fishermen would receive more for their fish via bonuses at the end of a week, month, or season. This way fishermen could receive a better price overall, even if not immediately upon landing, and it would be driven by market forces with a better chance for longevity.
- **Price floors:** Creating price floors is also something more feasible for processors to manage and work towards. It does involve educating their customers and building a market for a higher price, but is a market-based solution that could raise the price to fishermen over time, or at the least, create a safety net.
- **Willingness to pay:** Buyers at the end of the supply chain shared that while consumers often ask for local seafood, they do not always demonstrate a willingness to pay more for it, or at least have limits depending on the species and how familiar it is to them. Buyers we spoke with expressed that local seafood can be more expensive than imported seafood from much larger fisheries, but that they are comfortable with and understand what is behind the price differences. Here in New England, for example, they know there is high demand for local haddock, and a certain consumer willingness to pay for the local product. That makes a buyer comfortable paying more, for example, for local haddock than for imported tilapia. One buyer also pointed out that they do not compare pricing on something like local haddock to a cheaper imported tilapia, because it's like comparing apples and oranges. Rather, they think about how local seafood pricing compares to pricing for other local proteins like local beef or chicken (which are also more expensive than their mass-produced counterparts). Local seafood is very competitively priced when compared with these other local animal proteins.
- **Forward contracts:** Not many buyers or processors were interested in the idea of forward contracts. A couple of fishermen thought it could be a useful tool to give them a more stable buyer and price, but other fishermen were wary of the idea. Buyers at the end of the supply chain said they would rather let their suppliers (i.e. mid-supply chain) decide whether to set up contracts with fishermen. Processors in the mid-supply chain expressed that there are too many factors impacting price to be able to set up contracts that would work well for everyone. We have heard about negative past experiences with contracts from both fishermen and

processors. Some fishermen reported landing product but not receiving the previously established price, and some processors reported that fishermen broke contracts by selling to someone else on a day when they could get a higher price elsewhere. All of these challenges defeat the purpose of establishing contracts, and these breaks in trust and in agreements have left both fishermen and processors hesitant to try these arrangements.

What's needed?

These pricing challenges require behavior changes and they also require the industry to work together pre-competitively to make change. While some of the challenges here are connected to larger global market forces, there are still opportunities for the industry (fishermen and processors) to make more with the resource we do have here by finding ways to establish better pricing for better quality product. There is a fear of doing things differently, but the industry must take some risks in order to adapt and survive in today's marketplace. One of the biggest barriers to testing creative solutions here is a lack of trust among the industry (within the fishing industry, within the processing industry, and across the sectors). Building in solutions like bonuses or pricing floors are near-term solutions that processors can implement individually. In the long term, however, we believe the industry will be most successful if it evolves to compete on quality, rather than quantity, and if demand is established *specifically* for fish from New England. Alaskan seafood is a great example of an industry that banded together pre-competitively to improve quality across the fishing and seafood industry, and built a marketing campaign over time that has taught consumers to equate Alaska with premium seafood. While Alaska has vastly greater volumes of product, there are lessons to be learned from how they increased the value of their catch by improving the quality and increasing demand specifically for seafood from Alaska, and it has benefitted the whole industry in Alaska. Building market demand for New England-specific product is critical; the market needs to be there.

Access to capital

Several different challenges expressed by processors boiled down to challenges in accessing capital in one form or another.

Infrastructure

- Given the historic nature of the industry in our region, there remains significant fishing and seafood business infrastructure along working waterfronts in fishing communities like Portland, Gloucester, and on Cape Cod. Unfortunately, much of it is aging and in bad need of updating, repair, or replacement. This is likely due to the contraction of the groundfish industry combined with increasing costs of upkeep over time. People spoke of old buildings, wharves, and processing equipment, in addition to many old vessels in need of updating. For mid-supply chain and fishing businesses interested in investing in some of these infrastructural needs, it can be challenging to access loans or grants. Banks often are less understanding or wary of the uncertainties involved in the seafood industry due to its reliance on a wild natural resource. The value of waterfront property for non-marine uses can also complicate access to capital and competition for waterfront access.
- Additionally, investing in infrastructure like more efficient processing equipment, freezing equipment, or cold storage, can be risky for processors because of the volatile nature of the

seafood marketplace. For example, investing in freezing equipment that a company might use irregularly when certain species are in high supply also requires having storage space for inventory, and managing your staffing capacity. There was not a lot of interest expressed in sharing processing equipment among the businesses interviewed, with most saying it would be hard to manage. Most were more interested in finding ways to invest in research and innovation within their own businesses, but they have had a hard time accessing capital to allow for that research and testing.

- Human capital is also a challenge. Workforce development issues came up in several conversations with processors. Human capital is often overlooked, but having skilled workers who can cut fish, handle it well, work the high-tech processing equipment, etc, is becoming increasingly harder. There is also a need for good crew on vessels, with a variety of skills. Some suggested that in key ports it would be beneficial to have vocational school programs focused on the variety of skills needed in the fishing and seafood industry. There would be opportunity to employ retired fishermen and other industry members to teach these skills.
- Major buyers expressed some infrastructure challenges, too. The logistics of having fresh local fish delivered to more rural or inland areas can be challenging in a state like Maine. Lack of storage can be a challenge for locations that do not receive fish deliveries daily. Using services like FedEx is something that some mid-supply chain companies have tried or experimented with, but buyers at the end of the supply chain do not always trust that the quality will be maintained in using a shipping service or are unable to accept product that way due to food safety rules within their companies.
- These distribution challenges also exist for fishermen interested in distributing their own product directly to consumers or larger buyers. From a capital standpoint, investing in a truck is a big upfront cost, and if there is a requirement for a truck to be refrigerated, that is an even larger investment. For fishermen only interested in going short distances with whole fish, they believe they can achieve the same food safety goals using large coolers in an unrefrigerated truck, and this regulation around refrigeration has been a major barrier because of the cost.

Innovation

- Many processors and fishermen have existing ideas about ways to innovate – whether to create new value-added products, to open up new market outlets, to process less popular species more efficiently, or to get more value from the whole animal. They expressed that it is particularly hard to access capital to invest in innovation for underutilized species, which sorely need it, but are also currently low value and thus less attractive from an investor or lender’s standpoint. Some pointed to countries like Iceland, where significant public investment has been leveraged to spur innovation in the seafood industry and has resulted in much more value being extracted from various parts of the fish (also reducing waste). There is a feeling that some types of research would benefit the whole industry – and that investment in research to benefit the whole industry should come from public or philanthropic dollars, rather than one company investing its own money (which they often don’t have the ability to do) to benefit the industry as a whole.

What’s needed?

Many of these challenges related to capital, infrastructure, and innovation are technical challenges. Access to financing would allow businesses to address these challenges and test their ideas. There is a

need for both individual businesses to have access to more capital, *and* for more investment into innovation from the public sector that would benefit all. Efforts have been made to increase public and private financing for small and medium-sized agricultural businesses that are growing regional food systems, and the same is needed in the seafood industry. Part of the challenge here is industry lack of awareness of some of the existing grant and loan programs offered, for example by USDA and other federal agencies; and even when there is awareness of such programs, there is a lack of capacity and/or a need for technical assistance in undertaking the application process. As for private sector investment, there is a need to educate traditional lenders and investors about the growth and improvement opportunities that seafood and fishing businesses have, in addition to understanding some of the risks involved – similar to the needs faced by farmers and small food businesses in accessing capital.

Relationships

One theme that emerged from a number of interviews is the benefit of a fisherman and a processor having a direct relationship. Both fishermen and processors who have established direct relationships talked about how this has been mutually beneficial. These relationships are unusual because much of the finfish in New England is sold at auctions that take place in the larger ports (Portland, Gloucester, New Bedford). The original idea behind these display auctions was to have a more transparent and fair system in place, one in which processors have to bid against each other for fish coming in from various boats and in which fishermen have more visibility into the prices across the market. A side effect of this system is that fishermen often do *not* have direct relationships with the processors buying their fish, and do not know a lot about where their fish ends up in front of a consumer. Fishermen also believe that the auctions are not as transparent as they were intended to be, because dealers can communicate with each other without the fishermen's knowledge. There is also a fear of making deals directly, outside of this system, because people (both processors and fishermen) have been blackballed when they have gone around the auction.

The fishermen and processors we spoke to who are buying/selling directly (with species that the auctions are not as dependent on) have had great success in those relationships. They have been able to negotiate prices with each other in mutually beneficial ways, and they have also provided each other more stable market outlets and sources of supply. Being able to discuss needs, challenges, and opportunities has led to better trust and understanding of where each is coming from, which has been good for their business relationships.

It is important to note that from past conversations we have had with fishermen and processors, we know that direct relationships have *not* always been successful. Typically the reason those relationships fall apart is because one party (fisherman or processor) does not hold up their end of the bargain, whether on pricing, commitment to a certain amount of product, etc.

What's needed?

Overall, good relationships between fishermen and processors appear to be rare. The lack of trust across and within these industries is a major barrier to initiating creative solutions to some of the challenges identified in this report. The industry lacks strong social capital, which is the idea that relationships and

social networks have a tangible value. In other words, it refers to the quality of relationships and the connections within and across social groups, all of which enable communities to work together for mutual benefit. Research shows that it is crucial to have strong social capital in order to solve problems like those affecting our region's fishing and seafood industry.

As a next step, we plan to pull together some examples of successful relationships between the fishing industry and the processing industry and will also look at the literature on social capital to identify some best practices for establishing good relationships. We will also identify some possible next steps for convening industry members to discuss supply chain collaboration opportunities and needs.

Marketing and consumer awareness/education

Everyone we interviewed (fishermen, processors, buyers) spoke about the need for more consumer education and better marketing of regional seafood, finfish in particular. Processors and buyers said that they could buy and sell a lot more local seafood, but sales are limited by customer demand. This represents both a technical and an adaptive challenge. Technically, the industry knows what facts it would like the general public to know – that there is responsibly harvested seafood from our region; that we have some very healthy, abundant stocks of finfish (several of which are significantly underharvested); that fishermen care about and respect the ocean resources they depend on; and that we are importing 91% of the seafood we eat (particularly finfish) rather than supporting our local coastal economies.

There is broad frustration with common public perceptions that New England does not have many healthy finfish fisheries left, when the majority of fish stocks here are actually doing well. Fishermen expressed that they work hard to abide by the strict fisheries management we have in the US, and they do not feel like they get credit for their efforts in the public's eye. They wish that the federal government would do more to promote the seafood that comes from this regulated industry, or at least to build awareness among consumers that we have such strong regulations in the U.S.

Fishermen and processors also expressed an understanding that consumers need opportunities to try local fish they haven't had before and to learn how to cook fish well. Changing perceptions, behaviors, and habits are not easy tasks, but there are a variety of ways to draw positive attention to the seafood available from our region and to build awareness of the opportunities. There was particular interest in educating kids about seafood, to enable them to become educated consumers. There was also interest from the buyers about educating their staff on the front lines (e.g. a server in a restaurant or an employee at a seafood counter), who might come to the job without any specific knowledge of local seafood. To sum up, the following represent focus areas and key points for increasing consumer awareness:

- Focus area 1: Awareness of the global marketplace and our region's place in it:
 - Much of our seafood is imported.
 - There are many responsibly harvested species from our region that people can feel good about eating.
 - Fishermen are held accountable to strict fisheries management regulations in the U.S.
- Focus area 2: Becoming a local seafood consumer:
 - How to recognize good quality fish.
 - The basics of how to cook fish at home.

- Opportunities to taste test less familiar regional fish species.
- Asking questions about where your fish is coming from.

In addition to this general consumer awareness-building, there is also an interest in more specific marketing strategies for individual businesses, and a real understanding that people want to know where their food is coming from. There is a recognition that traceability and telling the stories of fishermen are critical ways to increase the value of regional seafood.

What's needed?

Messaging about seafood can often be complex and confusing to the average consumer. There is a continued need for consumer education about seafood to come from trusted sources (like third parties), and to ensure consumers know where to go for good information. Bringing together organizations and businesses in the region to find common ground and some coordination in messaging would be a good place to start. Consumer education campaigns and efforts are ongoing by specific organizations (GMRI included) around the region, although they are difficult to find grant funding for on their own; usually consumer education has to be worked into other projects and efforts. In 2017, GMRI conducted some initial conversations on shared messaging with regional businesses and nonprofits that could be built upon.

There is also opportunity for businesses to embrace traceability technology and its capacity to help tell the stories behind the seafood they're selling. With regular reports of seafood fraud in the news, it is critical that seafood businesses be transparent about their sourcing to build and maintain trust with customers. Technology can help here.

A number of possibilities exist for the industry to work together pre-competitively on awareness-building and marketing. Examples of industry-funded marketing efforts (Maine Lobster Marketing Collaborative, Alaska Seafood Marketing Initiative) could provide ideas and inspiration. Building relationships with traditional and new media outlets could lead to more positive stories in the news about the fishing and seafood industry. Training some fishermen and mid-supply chain members on how to talk to the press and focus on shared messaging could be a worthwhile endeavor.

In Conclusion

Some specific challenges in the local seafood supply chain have been identified here as technical challenges, requiring research into permits and regulations or a better understanding of quality specifications. There are also many adaptive challenges, like improving pricing for better quality, or coming together around shared messages, that require the industry to change its behavior and work together to achieve outcomes that will benefit all. Despite the challenges, there is real potential to do a better job making use of and marketing the diverse range of seafood available to us right here in our own backyard – providing a healthy, local protein option to consumers around New England and beyond.