

How the COVID-19 Pandemic Gave a Stimulus to Local Seafood Consumption

María Andrée López Gómez, Memorial University, Canada / Center for
Demographic Studies, Barcelona, Spain
Frédéric Cyr, Northwest Atlantic Fisheries Centre, Fisheries and Oceans,
Canada

Abstract

Lobsters have always been anchored in a long-lasting tradition on the Magdalen Islands, a small archipelago in the province of Québec. Being the principal driver of the economy, the lobster fishery is an element of pride for locals, with, for example, the beginning and the end of the fishing season usually accompanied with numerous festivities across the islands. Eating lobster is also a tradition. It is eaten fresh or preserved and incorporated in many traditional dishes, especially during the winter months. It is also enjoyed with family, friends and visitors. However, like in many other parts of Canada where seafoods are highly priced, Islanders consumers often find themselves unable to afford lobster, even though the resource is harvested locally. This situation has been exacerbated with the recent surge in the international demand for seafood, for which the seasonal workforce in the processing plants plays a central role in the supply chain. At the beginning of the COVID-19 pandemic the Islands' seafood producers were however deprived from their seasonal foreign workforce due to closed borders, which

largely prevented secondary and tertiary transformation of seafood. The Islands' seafood producers had no choice but to sell a large part of their live product locally, and at low prices. Through news articles, family stories and informal interviews, we report here how the pandemic changed the lobster fishery distribution – and the kitchen parties –, at least for one season. Reflections are also made about the factors contributing to the seemingly lack of access to the local products, and how the future looks like for the lobster fishery and the customers' access to the fishery products.

Introduction

In the early 1960's, on the Magdalen Islands, Quebec, a small archipelago of approximately 12,000 people in the middle of the Gulf of St. Lawrence (Figure 1), Phil³¹ and his cousin, as kids, used to ride their bicycles to the nearest fish processing plant. Their aunt would give them \$0.50 each to bring back a bag of cooked lobster carapaces (i.e. the *cephalothorax*, see Figure 2) discarded from the factory and destined to fertilize surrounding farm lands. On the Magdalen Islands in the 1960's, only the lobster claws and tails were kept and shipped for export, primarily to the US market. But for Phil's family who couldn't afford a lobster meal – like most locals –, this early days *dumpster diving* is a real feast:

*“Not only did I get the 50 cents, but I was also invited to eat lobster. This was a luxury!”*³²

“Maybe in other families, where the dad was a fisherman, they could afford eating lobster, but for us it was a fortune!”

Another woman, Christine, adds:

“I remember that sometimes my dad would arrive with a drum³³ of warm lobster

³¹ All names in this text are fictional.

³² All quotes have been freely translated from French by the authors. While the general meaning of the quote remains, the exact wording may differ from the original and/or be a combination of quotes.

³³ A barrel of about 200 litres.

bodies. We [the kids] were allowed to eat one or two, but the rest was placed in jars and preserved for the rest of the year. We would do the same with cod livers that my dad was saving while gutting the fish.³⁴”

Despite the importance of the lobster fishery for the Islanders, Phil never ate a complete lobster before the age of 16. It only happened when he was invited for lunch by his wealthier uncle, who was the owner of the local grocery store where Phil was working:

“I remember that once in a while during the fishing season, my uncle and [name redacted] would drive to the fish plant and buy directly from the processing chain. They would have two lobsters each and they would buy me one. They would eat them with a beer behind the plant, sitting on the rocks in front of the ocean.”

Phil’s younger brother, Earl, also pointed out to the limited access to this local resource for Islanders:

“I only ate my first whole lobster after I started to work. I must have been 19 or 20.”

Phil comes from a family of nine siblings. For most of his childhood, his mother was taking care of the family home while his father was gone working in the logging industry on the north shore of Québec between April and December. They owned a few animals (i.e., chicken, pigs, a cow) and had a garden.

“We were not rich, but thanks to my father’s job we had everything we needed. Once a week, my mother would walk to the general store and order a delivery with the money my father was sending.”

This survival lifestyle that included gleaning from the fish plants in addition to owning animals, cultivating a garden, etc. seemed widespread through the islands in the 1960’s as summarized by Christine:

“As far as I can tell, all families were benefiting from the lobster by-products. It was for trash anyway. But a very small number of people had a car, so we would rely on other members of the community that would go and get lobster bodies for 3 or 4 families at a time.”

³⁴ Christine’s father was not a lobster harvester, but a groundfish harvester.

HOW THE COVID-19 PANDEMIC GAVE A STIMULUS TO LOCAL SEAFOOD...

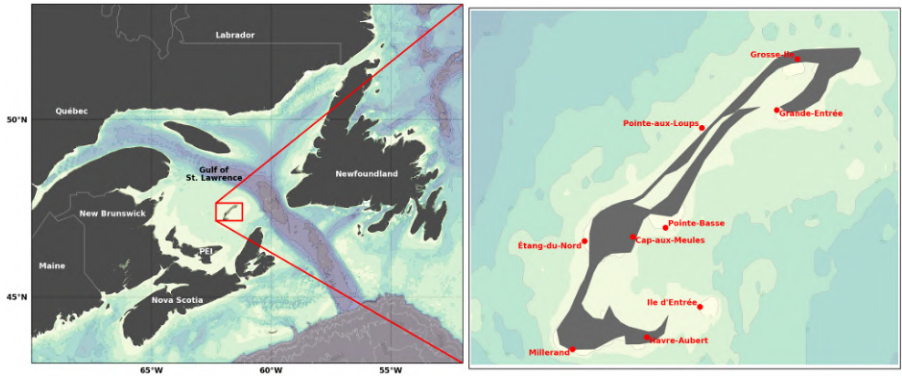


Figure 1. Map of the Gulf of St. Lawrence and the Atlantic provinces of Canada. The Magdalen Islands (zoom) is an archipelago of about 12,000 people. Nine federal small craft fishing harbors are located on the islands (red dots), each corresponding to a traditional fishing community. Bathymetric contours are displayed in light grey with data from the General Bathymetric Chart of the Oceans (GEBCO) 2014 Grid bathymetry (version 20141103).



Figure 2. A cooked lobster. In the 1960's, only the claws and the tail of the lobster were kept, while the lobster carapace (cephalothorax) was discarded. Photo credit: Frédéric Cyr.

A Brief History of the Fishery and the Processing Sector on the Magdalen Islands

Historically, fisheries on the Magdalen Islands included pelagic fish (herring, mackerel), groundfish (cod, redfish, Atlantic halibut, American plaice) and shellfish (lobster)³⁵, but cod, herring, mackerel and lobster were traditionally the main commercialized seafood. With the exception of some groundfish fisheries that were performed in the deep offshore areas of the Gulf by large (+30m) trawlers, mostly between the 1960s and the early 1990s, most of these fisheries can be labeled as *small-scale* in that the licenses and the fleet are owned and operated by individuals fish harvesters and not by large companies

³⁵ Note that snow crab has not been included in this list because although it is now a valuable fishery for the Islands, the expansion of the fishery in the Gulf of St. Lawrence only started in the late 1970's and early 1980's (Source: DFO 2021b).

or holdings. There was also a long tradition of seal hunting dating back as far as the 16th century. By the end of the 1800's, inshore and offshore fishing was a common endeavor for the Magdaleners as the inshore fishery became more popular with increased stocks of lobster and herring. For example in 1936, the lobster represented 67% of the total value of fisheries productions, followed by cod with 18% and herring with 9% (Fortin & Larocque 2003). Animals were also raised on the islands: horses, cattle, sheep and pigs. The islanders were self-sufficient, cultivating land and raising animals.

Although the lobster fishery has been ongoing since 1875, licenses for fishing were only introduced in the 1960's. This marked a change in the harvesting rates and the commercial value of the resource. While the landings oscillated between 1,000 and 2,000 tonnes (t) during almost eight decades (1912-1988), the landings crossed the bar of 2,000t, 3,000t and 4,000t in 1989, 2010 and 2017, respectively (Government of Canada 2017). The value associated with these landings increased near-exponentially, from less than one million dollars before the 1960's to more than sixty-four million dollars in 2017 for the Magdalen Islands only. Overall, the 325 license holders of the Magdalen Islands are responsible for more than half of the landings of the province of Quebec, although this share is shrinking (e.g. from 71% in 2004 to 57% in 2017) (Government of Canada 2017).

As the lobster fishery grew on the Magdalen Islands, the cooperative movement helped to develop a larger seafood processing sector. Between the 1930's and the early 1990's, multiple fishers' cooperatives were founded in different wharves around the islands (roughly corresponding to the current location of the federal wharves of the islands; see Figure 1). For example, 8 fish harvester cooperatives were created on the Magdalen Islands between 1930 and 1943 in order to better represent the members on the international market following the great depression of 1929 (Arseneau-Bussières & Chevrier 2007). In 1937 there were 17 registered seafood processing plants (not all cooperatives) that employed a total of 674 workers (Fortin & Larocque 2003). However, a series of mergers, acquisitions, closures and bankruptcies, especially in the years preceding the collapse of the groundfish fisheries that led to a moratorium in 1992, forced the decline

of the number of cooperatives on the Islands. The last fisheries cooperative of this first wave was incorporated in 1987 (Bussieres & Chevrier 2007). More recently, in 1993, 27 fish harvesters from Grosse-Île founded a cooperative in response to the discontent with fish prices offered by local buyers. The cooperative, with the help of the government of Quebec, was able to sell the catch of members to other buyers in Quebec and from outside the province (Bussieres & Chevrier 2007). This cooperative, *Cap Dauphin*, is the only fisher's cooperative still standing. It has now more than 85 fisher-members and employs between 50-100 people ("Canadian Seafood" 2021).

In addition to *Cap Dauphin*, there are three other main seafood processing businesses on the Magdalen Islands that together employ between 450 to 500 workers. The largest processor, *LA Renaissance* employs more than 300 people at two locations (Gros Cap & Grande-Entrée) (Développement économique Canada pour les régions du québec 2017; Morissette 2019). The second largest processor, *Fruits de Mer Madeleine*, located in Étang-du-Nord, employs more than 150 people (Fruits de Mer Madeleine 2021). The last processor, *Poissons Frais des Îles*, located in Millerand, was founded in 1987, but changed ownership in 2021 when a lobster harvester and sea farmer acquired the enterprise (Fauteux 2021a).

The Need for Foreign Workers

In the early 2000's, the Magdalen Islands' lobster fishery kept booming – potentially as a result of an expansion of the lobster habitat following warmer ocean conditions (Bernier et al. 2018). The increase in stocks created the perfect scenario to increase the shellfish production for international markets. Even though the Magdalen Islands had a series of cooperatives dedicated to seafood processing for many years, increased shellfish production – combined with an aging workforce and a disinterest for the processing sector – gave way to claims of labour shortages. Processing plants in Atlantic Canada started recruiting under the Temporary Foreign Worker Program (TFWP) to fill their worker needs. The program allows employers to hire foreign workers temporarily to fill labour and skill shortages when qualified Canadians are

not available (Canada 2022).

Processing plants on the Magdalen Islands started participating in the TFWP in 2017, bringing workers mainly from Latin America. Even though the program is meant to fill a temporary gap, the federal government has expressed concern when using the TFWP in areas where there are high unemployment rates (Thomas and Belkhdja 2014). The Magdalen Islands is no exception reporting unemployment rates as high as 17% in 2001 and 13.7% in 2021 (“Taux de Chômage Selon La Région Utilisée Par Le Programme d’assurance-Emploi, Moyennes Mobiles de Trois Mois, Données Désaisonnalisées” 2022; Policy and Economic Branch Quebec Region 2004). Nevertheless, the demand for foreign workers continues to increase (Figure 4). LA Renaissance, the main processing plant on the Islands, hired one hundred foreign workers in 2021 out of a total of 350 seasonal workers, but only employs 15 permanent workers.

The main reason plant owners give to participate in the TFWP is the loss of labour due to an aging population:

“The average age [of plant workers] is 58 years old ‘and every year I lose people due to retirement or because they change jobs. Without foreign workers we couldn’t produce what we have to” (ICI Radio-Canada 2019a)

The average age of the population on the Magdalen Islands is 47.5 (Median=52.0) compared to an average age of 41.7 (Median=41.1) in the whole of Canada (Figure 3) (Statistics Canada 2021a; Statistics Canada 2021b). The population of the Islands is aging rapidly, and similarly to many Eastern Canadian regions, the Magdalen Islands has gone through cycles of a booming fishing industry to different groundfish moratoria that resulted in fewer job options in the fisheries and processing plant industries (Power et al. 2014). Throughout Atlantic Canada there have been reports that youth are less interested in fish plant work and are encouraged to seek education rather than work in the fisheries sector (Power 2012; Power et al. 2014; Knott 2017; Morissette 2019). Some recognize as Billy, a former worker in one of the processing plants on the islands, that plant work is arduous and undesirable for locals:

“[At the plant] You earn a minimum wage to work 16 or 17 hours a day. You’re

not treated very well and you don't earn any benefits [...] it's one of the jobs I have done that had the worst conditions. You work from 5am to 7pm and there is no window. [...] Before, people did not have other options. Now people know they can get a better job elsewhere."

What Billy describes here is a common reality for processing plant workers. Even though Billy states that people have accepted arduous work at seafood processing plants in the past, recent studies point to changes in plant work driven by corporate capital accumulation that changed the rhythms of work and made some labour cheap (Reid-Musson 2018; Knott 2021). Changes in work schedules and seasonal contracts led to a loss of a traditional workforce, a generation whose parents worked and earned a living from seafood processing work and as a result had different expectations from the industry.

The reality is that young people are less interested in seafood processing plant work as it pays low wages for low quality work, and at times young people prefer or are encouraged to migrate to places that offer higher paying jobs (Knott 2017). As Billy mentioned, work in seafood processing plants is hard work. It is physically demanding: workers are exposed to speed work, bad odours, extreme temperatures, prolonged standing and hazards associated with the use of sharp tools (Marschke et al. 2018; Cedillo et al. 2019). The ensuing reduction of the pool of regional workers willing to work in the industry further helps employers to justify accessing the TFWP (Knott 2021).

Even though the TFWP is increasingly being used in Atlantic Canada, in areas such as Prince Edward Island, New Brunswick and now the Magdalen Islands, there is evidence that the TFWP creates additional precarious employment and living conditions to foreign workers. Work under the TFWP lacks benefits, social security and protection against unruly behavior from employers, with the caveat that workers are allowed to work only with one employer constraining their mobility and unable to change employers if they wish to do so (Shantz 2015; Reid-Musson 2018; Cedillo et al. 2019; Knott & Marschke 2020). This situation has motivated some foreign workers to engage in flagpoling, which entails trying to cross the border to the

United States (US) and being denied entry only to re-enter Canada and potentially validating papers with a new employer (Knott & Marschke 2020). Flagpoling is risky as workers can be denied entry into Canada as well. All these conditions leave foreign workers exposed to vulnerabilities such as experiencing a breach of contract, occupational health and safety violations and refusal to take days off due to injury (Cedillo et al. 2019). There are cases where foreign workers travel to the host country not knowing their job tasks before arriving and then facing risky situations due to limitations in understanding the language (Knott & Marschke 2020).

In 2020, TFW were not able to travel and perform seasonal work in seafood processing plants on the Magdalen Islands due to regulations and precautions to stop the spread of the COVID-19 pandemic (ICI Radio-Canada 2020; Rigaux 2020). The lack of foreign workers and additional changes to the global market due to the pandemic facilitated local consumption of lobster.

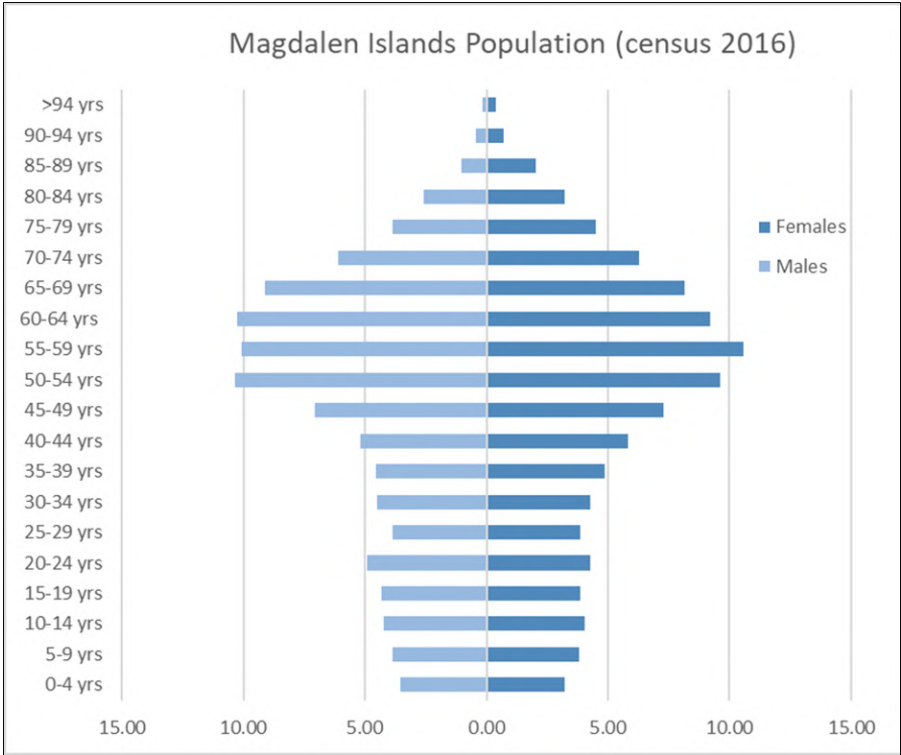


Figure 3. Age pyramid by sex of the population of the Magdalen Islands using data from the 2016 census (Statistics Canada 2017).

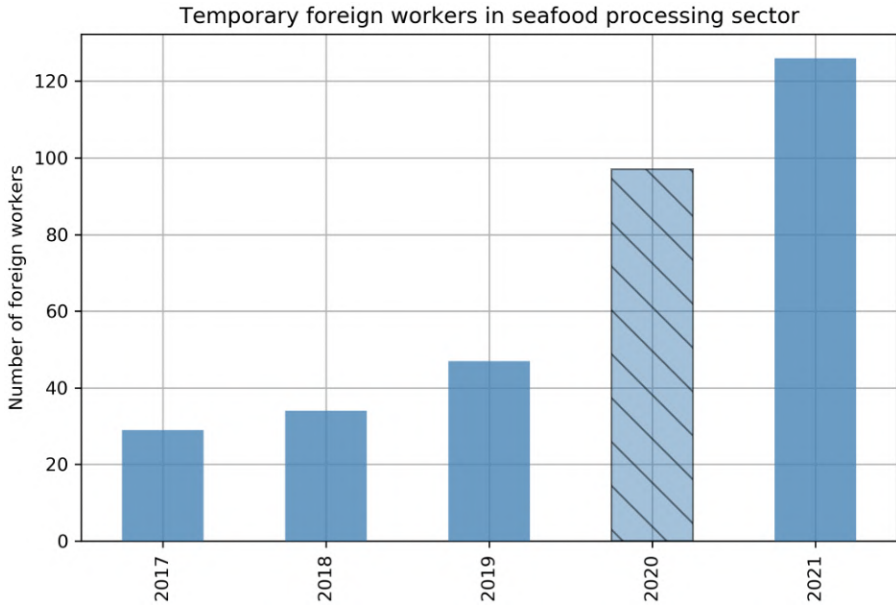


Figure 4. The processing sector increasingly relies on temporary foreign workers. Here the numbers are for LA Renaissance (total ~350 employees) and Fruits de Mer Madeleine (total ~160 workers), the two main processing enterprises on the Magdalen Islands. The latter company only participated in the temporary worker program in 2021 (n=25 workers). For the year 2020 (dashed bar), foreign workers were not able to travel to Canada because of the COVID-19 pandemic restrictions (ICI Radio-Canada 2019a; ICI Radio-Canada 2020; Valiquette 2021; Nadeau 2018).

Consequences of the COVID-19 Pandemic on the Lobster Prices

At the same time as the processing sector struggles to find personnel, surging market prices for lobster drive this culturally-important product away from the locals' tables. For example, despite a recent increase in the landings on the Magdalen Islands (Figure 5, barplot), the average price paid to the harvester at the wharf³⁶ recently reached record highs (Figure 5, orange curve). After excluding 2020, the average price given to the harvester at the wharf on the Magdalen Islands between 2015 and 2021 was about \$7/lbs. This number represents a 40% increase compared to the 2004-2014 average of \$5/lbs, and a 65% increase compared to the \$4.30/lbs average reached during the 2009-2014 period.

Lobster is generally a luxury product worldwide. However locals on the Magdalen Islands are accustomed to eating it in many forms. Being an island, tradition also dictates preserving different foods for the winter months, including lobster. For example, one traditional and popular dish, the "*pot-en-pot aux fruits de mer*" (a seafood pie), is usually prepared with preserved lobster. Although lobster is consumed locally (Lortie 2020), the large majority of the revenues in the processing sector comes from exports, with only a small fraction from the local market.³⁷ With a short fishing season (i.e., 9 weeks) and a thriving global market, producers have focused on addressing labour shortages in a way that aligns with production and market demands (Knott 2017; Knott 2021) and not with locals' culinary traditions or, as we explored in the previous section, with local workforce needs.

The COVID-19 global pandemic disrupted several markets including that of shellfish. First, restaurant closures around the globe caused an increase in the lobster inventory, and selling prices dropped for seafood producers

³⁶ We use here the price paid at the wharf as a benchmark for the selling price to local customers.

³⁷ For example, only 5% of the total fish and seafood products transformed by *Fruits de Mer Madeleine* are destined to the Québec market. Likewise, only 5% of seafood transformed at the largest producer on the Magdalen Islands (LA Renaissance), is destined to the Canadian market as a whole (source: Berube 2018; MixteMag 2018).

(Rigaux 2020). Second, travel restrictions prevented foreign workers from joining the workforce in the seafood processing sector in Canada through the TFWP (Figure 4, dashed bar) (ICI Radio-Canada 2020). Not only were the reselling prices unappealing for the processing sector, the lack of workers also largely reduced the secondary and tertiary production of fishery products.

For the Magdalen Islands, this translated into daily landing quotas imposed on fish harvesters (Larose 2020) and refusal to purchase imperfect lobsters (e.g., with missing claws) by some seafood processors (Berube 2020). With the absence of a foreign workforce, the processing sector focused on the live market that requires little manipulation and transformation, but that is generally limited to ‘top-notch’ lobsters, both in shape and in size (e.g., 1.25-1.50 lbs). Consequences for the market were two-fold: first, many fishers were stuck with lobster unsuitable to sell, and second, the processors were stuck with part of the landings unsuitable for live export. This resulted in an unusually high quantity of cheap and locally caught lobster in the local market.

Harvesters found a business opportunity even in this unfortunate situation. Locals reported that many fish harvesters would sell live lobster that the processing plant refused, directly to consumers, or that the fishers’ families would cook, prepare and preserve lobsters in bottles to sell by the dozens.

And the Magdaleners went frantic, Earl recalls:

“We bought a 100-pound crate directly from the harvester for \$300 to put in jars. We did this twice. I don’t remember having ever done that before.”

The processing sector also sold discounted lobster. In LA Renaissance’s Facebook page, cooked lobster was advertised for \$4/lbs in June 2020 (a price below the average paid to fish harvesters at the wharf). These discounted lobsters were what the market would call ‘imperfect’ (e.g. one missing claw), therefore couldn’t be sold for live export. Other local consumers mentioned they had purchased cooked lobster for as low as \$3.50/lbs, an offer that stayed for several weeks.

Many families took advantage of these discounts on an otherwise expensive product reserved mostly for special occasions. Like most of the world, Islanders experienced COVID-related lockdowns during the Spring and

Summer of 2020. They thus had more time to preserve lobster and revive this long-lasting tradition (Figure 6). This was nicely summarized by Christine:

“Everybody was doing preserves. Some families even made some to send to their sons and daughters who live on the mainland”.

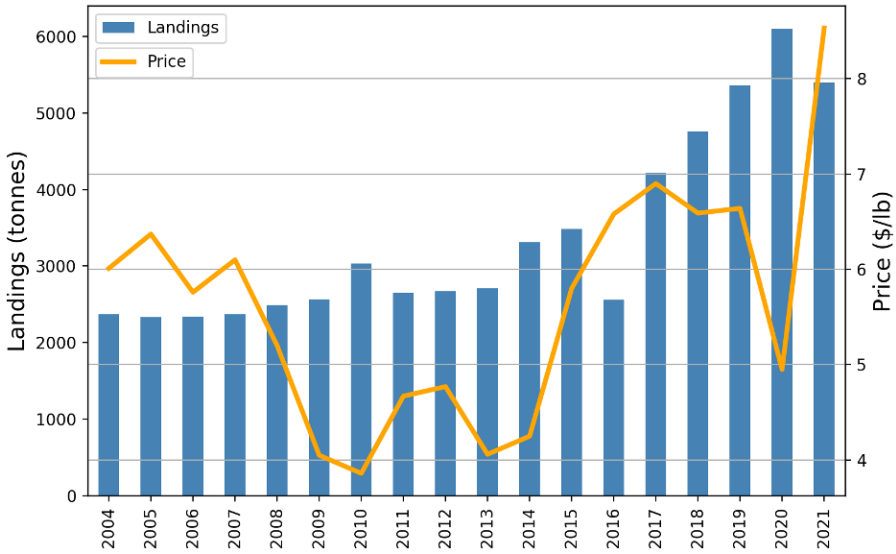


Figure 5. Lobster landings and season-average price at the wharf for the Magdalen Islands between 2004 and 2021 (sources: ICI Radio-Canada 2018; MPO 2019; Radio-Canada 2019b; Larose 2020; DFO 2021; Larose 2021).



Figure 6. Bottled lobster preserves, homemade during the COVID-19 pandemic.

Photo credit: Marjolaine Cyr.

Lessons Learned and Future Perspectives

This chapter tells many stories related to the lobster fishery on the Magdalen Islands. It is first a story about a natural resource in high demand in the global market that becomes an expensive product for locals who can barely afford it despite it being part of their cultural heritage. It is also the story about the construction of labour shortages and the option to hire foreign workers facilitating higher profits by shipping seafood across the globe rather than selling it locally at accessible prices. It is finally a story about how a worldwide pandemic shortly reinstated some balance and provided primary access to a local seafood product to the inhabitants of this remote archipelago who live closer to the resource.

The lessons learned from this study are multiple. One key outcome of this study is that more accessible (e.g. cheaper) local seafood products will translate into more local consumption. While climate change - and now the pandemic - are threatening food security around the globe (Mbow et al. 2019; Laborde et al. 2020), small-scale fisheries not only are essential to people's cultural livelihoods, but are also an important aspect of local food security worldwide, including in Canada (Loring et al. 2019). According to

the Intergovernmental Panel on Climate Change (IPCC), encouraging the consumption of local products may also help mitigate climate change by reducing energy and food loss (Mbow et al. 2019).

Another lesson learned is that the TFWP compensates for labour shortages in the seafood processing sector that emerged in a response to align with the production of global markets (Knott 2021). The use of the TFWP in the seafood processing sector on the Magdalens Islands is increasing, but its temporary pause in 2020 contributed to a local reduction of lobster prices and subsequent increased access to locals.

Information for 2021 suggests that 2020 was an anomaly and that the global prices for seafood will likely continue to surge and keep local seafood out of the plate of local consumers. The average price received by the Islands' harvesters in 2021 was \$8.53/lbs (including a peak of \$11/lbs during the second week of the season), breaking the previous 2017 record of \$6.90/lbs by more than \$1.50/lbs. While this steep increase is good for the local economy as gains support fish harvesters' livelihoods, the seafood processing industry and related industries, it also implies limited accessibility to lobster on the local market and, under certain circumstances, precarious employment. It raises questions on who benefits from the lobster fishery and under which terms. What is best for the wellbeing of Canadian small-scale fisheries communities? To what extent are stakeholders going to take advantage of precarious employment to increase profits? These profits may also be concentrated among a few in the community instead of benefitting a larger proportion through increased local access to seafood and decent employment.

Local consumption could never account for the current potential of the fishery, as only a small fraction (~5%) is destined to local and Québec markets. But the appetite for foreign markets also reduces local accessibility as recent history has demonstrated it for snow crab, another seafood resource of the Magdalen Islands. While the price at the wharf for snow crab remained relatively stable (\$1 - \$3 /lbs) between 1994 and 2015 (DFO 2021b), prices are on the rise since 2016, and are expected to have reached new record-highs around \$7/lbs in 2021 (Direction des analyses et des politiques des pêches et de l'aquaculture 2021). Referring to snow crab, the General Manager of

Fruits de Mer Madeleine points out that there is a price war³⁸ because some processors do not have enough volume for their installations:

“This is artificial; this is not serious. Are there many customers who can buy crab meat for dinner at \$72/lb? Our clients will stop buying.” (Fauteux 2021b)

And the fear is real that the current virtual impossibility for locals to buy freshly caught snow crab might eventually reach the lobster market. Earl pointed this out with a bitter tone:

“It could well be that one day we can’t afford lobster. Just take snow crab for example. Not so long ago it was possible to buy live or cooked crab on the Maggies. Now it is impossible. All the crab is sent for export. It is not even possible to buy it directly from the harvester. This year I was only able to buy processed meat for \$75/lb! This makes me sad...”

But with some philosophy, he concludes:

“For as long as we can afford it, we’re gonna eat lobster!”

Authors’ Statement

The idea behind this text comes from a personal experience. Born and raised on the Magdalen Islands, but now living abroad for many years, one of the co-authors witnessed the changes in the seafood market before and during the pandemic through multiple accounts from relatives and friends. The foundation of the text thus comes from these accounts that each converged toward the same story: lobster was cheap and accessible for locals during the summer of 2020. The original idea was further augmented as the research progressed on the roots of the seemingly access problem to the local seafood and labour shortages. The study is supported by information gathered from social media, newspapers, informal interviews and academic literature.

³⁸ The price at the wharf given to crab harvesters doubled from \$3.50/lb in 2020 to \$7/lb in 2021.

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