

# *COVID-19 Special Investigation Report:* Impacts to New England's Commercial Fisheries

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Prepared August 2020



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## About the Authors

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Prof. Grabowski's research interests span issues in ecology, fisheries and conservation biology, and ecological economics. Prof. Grabowski's lab has used a variety of estuarine (oyster reef, seagrass, salt marsh, mud bottom) and marine (kelp bed, cobble-ledge) systems to examine how resource availability, habitat heterogeneity and predation risk affect population dynamics, community structure, and ecosystem functioning. Much of this work focuses on economically important species such as lobsters, cod, herring, monkfish, and oyster reef and seagrass communities, and consequently is relevant for fisheries and ecosystem management. Prof. Grabowski's lab also focuses on how habitat degradation and restoration influence benthic community structure, population structure, and the transfer of energy to higher trophic levels. In addition, Prof. Grabowski is interested in how management initiatives such as closed areas, fishing gear modifications, and fishing effort reductions impact local habitat recovery, fisheries productivity, and the balance of resident and migratory life-history strategies for species such as cod. Finally, Grabowski's lab is also examining a number of other important topics aimed at enhancing our ability to restore and conserve aquatic species and ecosystems: fish migratory behavior, population structure, and age validation; the economic value of ecosystem services associated with coastal habitats; seafloor habitat mapping and its role in ecosystem management; and the influence of climate change and biogeography on species range shifts, ecological interactions, and ecosystem functions.



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## Executive Summary

### I. How have New England commercial fishing communities been impacted by COVID-19?

COVID-19 continues to have severe socioeconomic impacts on New England's commercial fishing communities. All facets of New England fisheries have been disrupted. In addition to the commercial fishers themselves, the dealers, processors, distribution, labor and consumer demand have been severely impacted. The loss of consumer demand for seafood was driven to a large degree by the closure of restaurants starting in March as a large proportion of seafood is consumed in restaurants in the U.S. In addition, disruption to other aspects of New England's seafood supply chain impacted New England's fisheries, such as the closure of the cruise-line industry and casinos also had enormous impacts on the lobster fishery. The lack of demand for seafood has resulted in the value of groundfish, lobsters, elvers, oysters, seaweed, softshell clams, and scallops dropping by 30-75%, resulting in large quantities of lost revenue. In many cases, prices were so low that fishers chose to fish less or not at all. Seafood companies have also spent heavily on COVID response efforts, and many have been forced to furlough workers.

Of further concern is that the major disruptions to New England's seafood industry are likely to continue for the foreseeable future. It is unclear when restaurants will return to buying large volumes of seafood given the largely reduced numbers of in person diners. Major seafood buyers like Red Lobster and the cruise-line industry may not fully recover, which would require the American lobster and other New England fisheries to develop new markets for their products. Furthermore, seafood processing plants in New England typically rely on large amounts of manual labor, hampering the ability of processors to process large quantities of seafood during the past couple of months due to social distancing requirements. And while some members of New England fisheries reported that a small proportion of the industry was able to use ecommerce effectively to sell their product, there is not currently the demand for fisheries (especially those that land larger volumes of seafood) to completely transition to these approaches without redesigning seafood supply chains and educating consumers throughout the U.S.

COVID-19 has exacerbated food insecurity throughout the U.S., creating massive disruptions in global supply chains that U.S. restaurants, supermarkets and consumers have become over reliant upon (see Food System special report). The U.S. seafood industry is a vital and sustainable source of protein that could help address the disruptions from COVID-19. The relative importance of the seafood industry to local economies in the U.S. is greatest in New England, where iconic fisheries have been a mainstay for centuries. Therefore, investment in and support for New England's fishing industry is necessary to help it persist through the disruption and emerge from it more resilient. Specific actions include efforts to support the seafood industry's workforce; remove regulatory barriers such as tariffs; support critical infrastructure such as fish exchanges and cold storage facilities; support efforts to develop collaboratives between fishers, dealers and processes; support direct to consumer marketing platforms; rebate landing fees; and assist in the development of value-added products.

### II. Policy Considerations

Seafood is a vital source of protein and critically important to the food security of our nation, and all fisheries-related businesses were rightly deemed essential. Fishermen should be able to participate in the USDA's Coronavirus Food Assistance Program, which includes \$19B to stabilize food and supply chains for farmers and ranchers. Excluding fishing industries from this program is to the detriment of our nation's food security. Both nationally through the fishing industry's advice to congress and regionally through our conversations with industry leaders, we have heard overwhelmingly that greater financial support is needed, especially for small and medium businesses. Continuing programs like the Payroll Protection Program for at least an additional 12 weeks so that captains and crew can continue to file claims could be essential given that fisheries are facing a protracted disruption. Furthermore, New England's fisheries would benefit from support the development and growth of new supply chains (e.g., ecommerce to consumers), such as state or regional seafood marketing institutes or councils. Efforts to negotiate fair trade to address tariffs and global trade barriers, as barriers to trade have exacerbated the impacts of COVID-19 on the lobster industry and others that have experienced reductions in exports due to the ongoing trade war between China and the US. At the state level, laws requiring purchase of local seafoods would help bolster reduced demand for seafood due to supply chain disruptions.

### III. Interconnecting Issues

The risks associated with COVID-19 has resulted in disruptions to the collection of both fisheries dependent (i.e., observer programs) and independent (i.e., NOAA surveys) data sources. Safety is of paramount importance, and many in the industry are at increased vulnerability to contracting COVID-19. Disruptions from COVID-19 may require greater reliance on additional sources of data, such as landings and fisheries research studies other than the surveys.

Impacts to the tourism industry have had severe consequences for New England's fisheries, and are likely to continue for the foreseeable future. Disruptions to the cruise industry and casinos have all but stopped them from purchasing large quantities of New England seafoods.

Global trade restrictions such as tariffs serve as a significant barrier to fisheries in New England. Efforts to negotiate for fair access to international markets would benefit fisheries in New England and elsewhere in the U.S.

### IV. Recommendations: Insights on action

The majority of our recommendations come directly from our conversations or listening sessions with key fisheries stakeholders:

- Support Partnerships that Promote Greater Price Stability for Fishers and Access to local fish for dealers. COVID-19 revealed that seafood supply chains in New England (and throughout the U.S.) were not prepared for a global-scale disruption such as from a pandemic. Federal investment in efforts among fishing communities, dealers and processors to create local and regional collaboratives could be pivotal in stabilizing prices by creating consistent demand for New England seafood, and increase the economic security of fishing communities. This would also contribute to food security in the region and throughout the U.S.
- Invest in Sustaining and Developing Dockside and Local Markets for Fisheries. The rapid growth of direct-to-consumer and community-based seafood programs has been among the few upsides of COVID-19. However, most fishermen see considerable obstacles to maintaining and growing these business channels in the longer term without serious investment in and modifications to traditional

supply chains. Thus, efforts to fund these ventures would help them grow, thereby potentially capturing a larger portion of fisheries landings and helping replace lost or reduced markets such as sales to restaurants. Furthermore, efforts to promote local seafood in New England restaurants are needed.

- **Increased Education about the Benefits of Consuming Local Seafood.** Many fisheries stakeholders highlighted the need for educating the public about the health and environmental benefits of consuming local seafood. Reminding the public that seafood comes from fishermen that have a vested interest in being stewards of the ocean, as their livelihood depends on the sustainability of their fishing practices. The fishing industry should be engaged regularly in discussions with the public around the issues that affect them, what wild-harvesting entails, and the benefits of consuming local seafood. Local seafood contributes to food security in the U.S., and fisheries management in the U.S. builds in measures to avoid overfishing and rebuild overfished stocks, as well as to protect vulnerable components of coastal marine ecosystems such as critical habitats. Conversely, imported seafood does not come with the same guarantees, and often can result in large carbon footprints due to destruction of important habitats such as mangroves, salt marshes, and seagrass beds and long transportation routes. In addition, the labor practices associated with imported seafoods are often unclear.
- **Invest in Infrastructure and Food Science Research while Protecting Access to Public Infrastructure that Supports Fishing.** Protecting the fishing industry’s access to public infrastructure and working waterfronts is of critical importance to its long-term viability. Furthermore, fish processing largely happens via manual labor, which is exceptionally challenging during a pandemic that requires social distancing. Greater cold storage capacity would also greatly enhance seafood processing capacity, and consequently stabilize fisheries during disruptions when prices fall. Cold storage on boats has also been used effectively to reduce lobster mortality during the warmer months.
- **Consider Fishing Regulations When Establishing Assistance Program Deadlines.** Compared to many other sectors of the economy, fisheries-related businesses are somewhat unique in their seasonal nature that is influenced by many socio-environmental factors such as: regulatory fishing seasons, tourism-driven economies, and seasonal patterns of fisheries species.
- **Promote the Health and Safety of Fishing Families.** Continued access for fishing communities to health care and services is critically important, especially in the midst of a pandemic that the industry is highly vulnerable to.
- **Expand Funding for Training Community Health Workers (CHW’s).** The “Navigators” program of Fishing Partnership Support Services in New England is a successful blueprint for such programs and has been extremely well received for its community-driven model.
- **Continually Assess the Unique Needs of Fishing Businesses and Communities.** Our report provides an initial overview of the challenges facing fishing communities and their perceived needs for overcoming these challenges. However, as the COVID-19 pandemic continues, these challenges and needs are certain to evolve.

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# COVID-19 Special Investigation Report: Impacts to New England's Commercial Fisheries

## 1. Introduction and Context

Wild seafood accounts for 8% of animal-based protein consumed globally, and thus is critically important to feeding human populations around the world (FAO 2018). Commercial fisheries have also been fundamentally important to the economies of coastal communities for millennia. In the U.S., commercial fisheries accounted for \$5.6 Billion of dockside value in 2018 (National Marine Fisheries Service 2020) and 1.7 million jobs totalling \$212B in sales (National Marine Fisheries Service 2018). Coastal New England has several of the oldest fisheries in America, and \$1.5 Billion (27%) of the dockside value of commercial fisheries landings in 2018 came from this region (National Marine Fisheries Service 2020). Commercial fisheries have also been consistently important to the region's economy, with landings ranging between \$1.2-1.5 Billion annually in New England between 2011 and 2018. Maine and Massachusetts both averaged almost \$600M annually in revenues during this period (Table 1), and landings contributed substantially to the economies of all five New England states.

Table 1. Annual commercial fisheries landings values by state between 2011-2018. Landings values were derived from the NOAA Landings Query Database.

State	Commercial Landings (2018)
Maine	\$585,599,057
New Hampshire	\$28,827,833
Massachusetts	\$579,361,944
Rhode Island	\$99,014,663
Connecticut	\$16,380,002

Although its geographic area is relatively small in comparison to many of the other fishery management regions in the U.S., New England contains several of the nation's most economically and culturally valuable fisheries. For instance, the American lobster (\$628M), sea scallops (\$411M), groundfish (\$80M), clams (softshell: \$19M; surf: \$17M; northern quahog: \$13M), squid (longfin: \$26; shortfin: \$13M), oysters (\$41M), menhaden (\$30M), herring (\$22M) and Jonah crab (\$17M) and tunas (\$15M) collectively accounted for 89% of total commercial fisheries landings value in 2018 in New England (National Marine Fisheries Service

2020). These fisheries are fundamental to New England, as many have been operating for several centuries, resulting in iconic species with some of the strongest regional identities (e.g., Atlantic cod, the American lobster) of any fisheries in the U.S.

New England fisheries collectively serve as an important economic engine for its coastal communities. Fishing and marine related industries (i.e., seafood sales and processing as well as transport support, and marine operations) in coastal New England are disproportionately important relative to other states. For instance, Maine had the highest relative measure of the economic importance of commercial fishing in 2015, which was ~20 times the average for coastal states, and Rhode Island was 4 times the average (National Marine Fisheries Service 2018). And while the Bureau of Labor Statistics suppressed this measure in Connecticut, Massachusetts, and New Hampshire in 2015, these states also likely would be well above the mean given the importance of commercial fisheries to the region. Collectively, fisheries in New England in 2016 resulted in ~150,000 jobs (including seafood imports), with Massachusetts accounting for ~87,000 of them (National Marine Fisheries Service 2018). The overall economic impacts of commercial fisheries in New England totaled \$3.6B in income and \$5.5B in value-added or the contributions made to the gross domestic product of the region (National Marine Fisheries Service 2018).

***New England Fisheries collectively serve as an important economic engine for its coastal communities.***

Commercial fisheries in New England are managed by a mixture of federal, interstate, and state management bodies. Federal fisheries in the region are managed by the New England Fishery Management Council (NEFMC) and NOAA Fisheries under the Magnuson Stevens Fisheries Management and Conservation Act. There are nine federal fishery management plans (FMPs) in the region: Northeast multi-species,

***Commercial fisheries in New England are managed by a mixture of federal, interstate, and state management bodies.***

sea scallops, monkfish, Atlantic herring, small mesh multi-species, spiny dogfish, red crab, northeast skate complex, and Atlantic salmon (National Marine Fisheries Service 2018). Monkfish and spiny dogfish are managed jointly with the Mid-Atlantic Fisheries Management Council (MAFMC). Federal fisheries operate using a mixture of catch share programs (e.g., the Northeast Multi-Species Sectors and the Northeast General Category Atlantic Sea Scallop Individual Fishing Quota (IFQ Program)) and more traditional

approaches such as days-at-sea as well as gear size and quantity limits. Several fisheries such as oysters, softshell clams, and northern quahogs are managed by individual states. Other more mobile species predominantly landed in state waters like striped bass are managed by the Atlantic States Marine Fisheries Commission (ASMFC). One key fishery, the American lobster, is managed by individual states (within state waters or 0-3 nautical miles from the shoreline) and cooperatively between the states and the NOAA Fisheries in federal waters (3-200 nautical miles from the shoreline) under the framework of the ASMFC.

COVID-19 has widely disrupted fisheries, fishing communities, and fishing economies throughout New England, as much of the world. These disruptions have impacted nearly every dimension of fisheries and seafood industries, including commercial fishers, supply chains, consumer demand, dealers, processors, distribution, and labor (White et al. 2020; Love et al. 2020). Many of these industries converge to forge relationships and business partnerships at the annual Seafood Expo North America, which in 2020 was postponed and eventually cancelled.

Here are specific examples of economic impacts experienced by Maine's seafood industry (Mook and Brown 2020):

- The value of groundfish was down 63%
- The value of Lobster is down 60%
- The value of Maine's elver fishery was down 75%
- The value of both seaweed and soft shell clams were down 55%
- The value of oysters was down 35%

These impacts to fisheries have occurred throughout New England. For instance, the federal scallop fishery estimated its revenue losses at ~30%. And just as revenues have decreased, seafood companies are spending substantially more than normal to outfit their facilities and ensure safety for their workers. For example, Ready Seafood in Portland, Maine estimates that it has already spent \$50,000 directly in response to COVID-19 (Mook and Brown 2020).

**The loss of consumer demand for seafood was driven to a large degree by the closure of restaurants.**

Although some restaurants were able to continue to provide take-out, the loss of in-person dining in restaurants drastically reduced demand for seafood. Restaurants in New England were closed to in-person dining until late spring/early summer, when outside and patio seating resumed. In general, a large proportion of seafood is consumed in restaurants in the U.S., so that the restaurant closures due to COVID-19 disproportionately and severely impacted the region's seafood industry. In addition to restaurant closures, disruption to other aspects of New England's seafood supply chain impacted New England's fisheries. For instance, the closure of the cruise-line industry and casinos also resulted in an enormous impact for some fisheries such as the American lobster. Collectively, Red Lobster, Carnival Cruise Lines, and Norwegian Cruise Lines typically purchase 25-35 million pounds of American lobster annually landed in Maine (Annie Tselikis, Maine Lobster Dealers Association, pers. comm.). Almost overnight, these major buyers shut down, creating a massive decrease in demand for lobsters. Of further concern is that it is unclear if and when these businesses will reopen and purchase large volumes of lobster again. These challenges that COVID-19 has created for the US lobster fishery were exacerbated by the impacts of the tariffs that China placed on lobster imports starting in 2018 (Tselikis and Brown, pers. Comm.; Tannen 2020). Since 2018, the US lobster industry has watched this part of the market evaporate, whereas Canada's lobster exports purportedly doubled between 2018 and 2019 (Shan 2019). The challenges of operating processing plants during COVID-19, which often require large amounts of manual labor, have also made it challenging for processors to handle large volumes of lobsters over the past couple of months. Collectively, these challenges have simultaneously reduced demand for and limited the capacity to handle the large volumes of lobsters typically landed during the summer in Maine.

These closures and reduced international demand for seafood have also spawned innovation. For instance, conversations with members of representatives for several New England fisheries over the past two months have revealed that a small portion of seafood fishers and dealers have successfully transitioned to e-commerce and/or selling their product directly to consumers. Yet it is unlikely that the demand exists for larger volume fisheries to completely transition to these approaches without major restructuring of how seafood is delivered to and consumed by communities in New England and throughout the U.S.

## 2. Policy Considerations for Recovery

Direct financial assistance and relief funding is a major need for fishermen and fishing communities. The CARES Act provided \$300 million dollars in relief (also known as Sec. 12005 funds) to states, Tribes, and territories involved with marine and coastal fisheries nationwide.<sup>1</sup> These funds included \$28M to Massachusetts (<https://www.mass.gov/service-details/mass-cares-act-fisheries-relief>), \$20.3M to Maine (<https://www.maine.gov/dmr/news-details.html?id=2939496>), \$3.3M to Rhode Island (<http://www.dem.ri.gov/programs/marine-fisheries/Fisheries-CARES-Act.php>), \$2.7M to NH (<https://www.wildlife.state.nh.us/marine/cares-act.html>), and \$1.8M to CT (<https://portal.ct.gov/DEEP/Fishing/Commercial/CT-CARES-Act-Assistance-to-Fisheries-Participants#:~:text=The%20Coronavirus%20Aid%2C%20Relief%2C%20and,by%20the%20COVID%2D19%20pandemic>). In general, this fisheries relief was available as direct assistance to a range of "fishery-related business" that experienced an economic loss greater than 35% compared to the previous 5-year average. The CARES Act also included several society-wide programs, including unemployment assistance and "stimulus checks", which are not elaborated on in this report.

However, CARES Act relief was not available to vessel repair businesses, restaurants, or seafood retailers as they were not classified as fishery-related businesses. Multiple fishing organizations have argued that CARES Act funds were insufficient compared to the magnitude of economic losses and needs facing the industry. In a May 4th letter to the U.S. Secretary of Commerce<sup>2</sup>, a group of commercial fishing businesses, fishing and seafood organizations and associations, and other stakeholder groups outlined a detailed list of needs and recommendations; we have added to this list the direct recommendations that we received from industry:

- *Additional Emergency Funding:* In addition to requesting a much larger sum of funds totaling \$1.5B for fisheries-related relief, the letter cosignatories requested that at least 50% of funds be allocated to small and medium-scale businesses.
- *Payroll Protection Program (PPP) and Debt Forgiveness:* Similar to many small businesses impacted by COVID-19, fisheries-related businesses have struggled to maintain employment and financial obligations. As unique challenges, the letter highlights the need to assist fishing captains and crew, particularly those who are younger and may not have ownership of fishing permits.
  - As an update on this topic, the Small Business Administration ultimately expanded a PPP loan program within the CARES Act to cover filings from 1099 workers, including many captains and crew.<sup>3</sup> While this PPP expansion was announced on June 25 with a filing deadline of June 30, it was eventually extended to August 8. Regional industry leaders have advocated for at least a 12-week extension to this program (Mook and Brown 2020).
- *Resources for Local Supply Chains:* Indicative of their adaptive and resilient nature, the letter describes a positive pattern of many fishing business and seafood suppliers pivoting towards direct-to-consumer business and marketing models. However, in the longer-term, sustaining these markets and broadening

their inclusiveness for younger fishermen and smaller fishing businesses will require investments and assistance. Specific needs outlined in the letter is an investment in “community-driven shoreside infrastructure that allows [fishermen] to bring traceable, quality seafood to consumers.”

- *Medical Care and Testing:* As fisheries-related businesses were deemed essential, the groups identify COVID-19 test, personal protective equipment (PPE), and free medical care as essential needs given the industry’s higher risk. Many industry members that we have spoken with have mentioned the need for testing, and that they were continuing to operate, but were constantly reassessing the risks presented by COVID-19. Setting up testing stations at major ports would help address this concern.
- *Food Assistance:* A specific request in the letter is eligibility for fishermen to participate in the USDA’s Coronavirus Food Assistance Program, which is described as \$19B to stabilize food and supply chains for farmers and ranchers.
- *Laws to support local seafoods:* states are not currently required to buy seafood from local fishers or dealers, resulting in large quantities of their seafood purchases potentially being sourced by international fisheries. Policies that transition states to purchasing local seafoods would help create stability in the industry, which would in turn enhance food security in the region, which has been an ongoing challenge during COVID-19.

The closing of the industry letter concisely illustrates the current state of many U.S. fisheries:

**“As fishermen and business owners, we pride ourselves in our independence and grit; however, COVID-19 has had devastating impacts on our industry with a growing number of us on the verge of losing our businesses, homes, and boats.”**

Promoting the recovery of fishing communities will also require understanding the full context of social and economic disruption. A common barrier to this understanding is often a scarcity of data at local or sector-relevant scales. From our conversations and review, we identified a number of recent planned ongoing surveys aimed at measuring the impacts of COVID-19 in New England fishing communities. Our interactions with industry members suggested that the timing of surveys would be critical. For instance, the lobster industry suggested that surveys be conducted in late summer after the peak of their season so that impacts could be assessed better. A brief summary of these efforts is provided here:

- *NOAA Fisheries Survey*
  - Summary: NOAA Fisheries has launched a multi-region survey will be used to inform NOAA Fisheries, the Department of Commerce, Congress, Fishery Management Councils, state fishery managers, and stakeholders about the economic and social impacts that the recent economic downturn has had on the fishing industry. NOAA Fisheries will draft reports for the public detailing the revenue losses and recovery of fishing-dependent businesses over the past few months.
  - Website: <https://www.fisheries.noaa.gov/national/noaa-fisheries-coronavirus-covid-19-update>
- *Rutgers University Fisheries Survey*
  - Summary: Rutgers University conducted a nationwide survey of fishermen (including vessel owners, captains, and crew) focused on understanding impacts, support received, and adaptation strategies. The online survey was “opt-in” and widely distributed by National Fisherman, Saving Seafood, and regional fisheries management councils

- Timing: May 2020
- Website: <https://www.nationalfisherman.com/mid-atlantic/ing-covid-19-impact-rutgers-university-wants-to-hear-from-east-coast-fishermen>

- *Virginia Tech & National Sea Grant Aquaculture Survey –*

- Summary: A team of aquaculture specialists from Virginia Tech’s Seafood Agricultural Research and Extension Center (VSAREC) has launched a quarterly survey program focused on understanding aquaculture and business impacts of COVID-19. The initial Quarter 1 survey had 537 responses, and a key finding was that only 20% of businesses reported having the resources to sustain 6-months without assistance.

- Timing: Late March/Early April for Quarter 1 Survey

- Website: [https://www.ares.vaes.vt.edu/ares/virginia-seafood/research/Impacts\\_of\\_COVID19.html](https://www.ares.vaes.vt.edu/ares/virginia-seafood/research/Impacts_of_COVID19.html)

- *NIST Businesses Survey: Impact and Recovery*

- Summary: The National Institutes of Standards and Technology is conducting a survey focused on understanding how COVID-19 may intersect with other weather-related stressors. The opt-in survey has been distributed through websites and social media channels.

- Timing: Summer 2020

- Website: <https://www.nist.gov/coronavirus>

In New England, there are several community-based organizations actively working on key issues related to COVID-19. We have provided a non-exhaustive list of organizations, with an emphasis on organizations working directly on COVID-19. These include:

- *NOAA Fisheries.* NOAA Fisheries has developed a website with national-level updates and resources related to COVID-19. For instance, related to the above surveys, NOAA formed a team of experts from across the agency to study COVID-19-related impacts on the U.S. commercial seafood industry, including wild harvest and aquaculture, impacts on employees and the broader seafood supply chain. The expert team is also looking at impacts on the recreational, subsistence, non-commercial, and tribal fishing industries. The website includes key information on CARES Act, seafood safety, fisheries closures, monitoring, and other federal resources.

Website: <https://www.fisheries.noaa.gov/national/noaa-fisheries-coronavirus-covid-19-update>

- *Massachusetts Fishermen’s Partnership (MFP).* Representing 16 commercial fishing associations from all gear and geographic sectors of the Massachusetts fishing industry, the MFP was created to promote the common interests and economic viability of commercial fishermen and fishing families.

Website: [www.mass-fish.org](http://www.mass-fish.org)

- *Fishing Partnership Support Services (FPSS).* FPSS is a New England focused organization that provides numerous resources for commercial fishermen and their communities. A major initiative of FPSS is the “Navigators” program, which trains individuals within fishing communities as Community Health workers. Since April, FPSS has run COVID-related webinar series with topics including

Pandemic Unemployment, Federal Loan Programs, Reaching Local Seafood Customers, and Identifying and Managing Stress. FPSS has also been working over the past several years on helping the industry formulate a vision for how it can transition to a safer, more resilient industry.

Website: <https://fishingpartnership.org/>

- *Maine Coast Fishermen's Association (MCFA)*. We strive to ensure that fishermen have the community infrastructure and environmental resources to maintain Maine's coastal cultural identity and sustain vibrant working waterfronts for this and future generations of Maine fishermen. In response to COVID-19, MCFA is working to provide fishermen with assistance and resources related to information on mental health, identifying covid-19 symptoms, stimulus opportunities, fishing licenses and regulations.

Website: <https://www.maineoastfishermen.org/covidresources>

- *Local Catch Network*. The Local Catch Network is a community-of-practice made up of fisherman, organizers, researchers, and consumers from across North America that are committed to providing local, healthful, low-impact seafood via community supported fisheries and direct marketing arrangements in order to support healthy fisheries and the communities that depend on them.

Website: <https://localcatch.org/>

- *Gloucester Fishermen's Wives Association (GFWA)*. The Gloucester Fishermen's Wives Association (GFWA) is a non-profit organization promoting the New England fishing industry, helping to preserve the Atlantic Ocean as a food supply for the world, and assisting active and retired fishermen and their families to live better lives.

Website: <https://gfwa.org/>

- *Northeast Seafood Coalition (NSC)*. The Northeast Seafood Coalition is a non-profit membership organization representing commercial fishing entities in the northeastern United States on political and policy issues affecting their interests as participants in the multispecies (groundfish) fishery. NSC members are small, independent, entrepreneurial businesses that fish for—and support fishing for—cod, haddock, flounders, and other groundfish species along the northeast coast.

Website: <https://northeastseafoodcoalition.org/>

- *Saving Seafood*. Saving Seafood is a non-profit funded by the fishing industry that conducts media and public relations outreach on their behalf, as well as communications to keep industry members aware of issues and events of concern. Saving Seafood has played an active role in COVID-19 policy communications to the fishing and seafood industries by sending out updates from the White House, Congress, Department of Commerce, Department of Treasury, FEMA, DHS, and other agencies. Saving Seafood's website on COVID-19 Response and Aid Information also notes that it has been tasked by the White House and Congressional staff to collect and share information from the industry.

Website: <https://www.savingseafood.org/coronavirus/>

### 3. Interconnecting Issues

The broad economic disruption of COVID also suggests that many fishing households with occupational diversity were disrupted by the high levels of unemployment. We have previously found an inverse relationship between stress and income diversity in the New England groundfish fishery (Scyphers et al. 2020). COVID-19 is likely causing and increasing distress and disruption in New England's fishing communities through a multitude of different pathways.

Efforts to resume at sea monitoring programs in New England have been met with resistance due to the added health risks to the fishing community associated with bringing observers on board groundfish vessels. Many groundfish fishers are at increased risk for severe illness according to the guidelines of the Center for Disease Control.<sup>4</sup> The National Marine Fisheries Service recently extended the moratorium on observing until July 31st<sup>5</sup>, but the risks associated with bringing observers will likely continue through the remainder of 2020 until a vaccine has been discovered.

The cancellation of NOAA's northeast research surveys will potentially amplify the challenges of relying on these data sources.<sup>6</sup> The New England groundfish fishery has raised concerns about the overdependence of stock assessments on NOAA's trawl survey data (Jackie Odell, Northeast Seafood Coalition). Greater reliance on fisheries dependent (i.e., landings) and other sources of fisheries-independent data (e.g., state surveys and academic research) could help alleviate the challenges associated with NOAA survey disruptions.

Impacts to the tourism industry have had severe consequences for New England's fisheries. As noted above, the cruise industry is a major purchaser of high end seafoods such as lobsters. It is unclear if and when the cruise industry will recover, forcing the lobster industry to explore new markets that will take time to cultivate.

Global trade restrictions such as tariffs serve as a significant barrier to fisheries in New England. The tariffs implemented in 2018 by China on American seafood immediately reduced export of lobsters, which had become an important buyer of lobsters (Mook and Brown 2020; Curt Brown, lobsterman and co-owner of Ready Seafood). Efforts to negotiate for fair access to international markets would benefit fisheries in New England and elsewhere in the U.S.

## 4. Recommendations

The majority of our recommendations come directly from our conversations or listening sessions with key fisheries stakeholders:

- Support Partnerships that Promote Greater Price Stability for Fishers and Access to local fish for dealers. Key members of the groundfish industry have been in discussion with the major seafood dealers about developing a collaborative partnership that would guarantee fishers consistent and potentially higher prices. If it resulted in greater price stability, such a collaborative would help the groundfish industry emerge from COVID-19 stronger. Thus, federal investment in these efforts could be pivotal in stabilizing an industry that has been experiencing chronic distress and social disruption over the past decade (Scyphers et al. 2020) which has likely been exacerbated by COVID-19. For groundfish, the Massachusetts Fishermen’s Partnership is well suited to help lead such an effort, as they have worked on other similar initiatives of critical importance to the fishing industry. For instance, they stood up Fishing Partnership Support Services and worked together to spearhead Massachusetts’ Health Connector healthcare system, which eventually became the model for the Affordable Care Act.
- Invest in Sustaining and Developing Dockside Markets for Fisheries. The rapid growth of direct-to-consumer and community-based seafood programs has been among the few upsides of COVID-19. However, most fishermen see considerable obstacles to maintaining and growing these business channels in the longer term. Thus, efforts to fund these ventures would help them grow, thereby potentially capturing a larger portion of fisheries landings and helping replace lost or reduced markets such as sales to restaurants.
- Increased Education about the Benefits of Consuming Local Seafood. Many fisheries stakeholders highlighted the need for educating the public about the health and environmental benefits of consuming local seafood. The fishing industry should be engaged regularly in discussions with the public around the issues that affect them, what wild-harvesting entails, and the benefits of consuming local seafood. Local seafood also contributes to food security in the U.S. Furthermore, fisheries management in the U.S. builds in measures to avoid overfishing and rebuild overfished stocks, as well as to protect vulnerable components of coastal marine ecosystems such as critical habitats. Imported seafood does not come with the same guarantees, and often can result in large carbon footprints due to destruction of important habitats such as mangroves, salt marshes, and seagrass beds and long transportation routes. Many consumers have expressed a desire to help the fishing industry in New England after stories revealed the negative impacts of COVID-19, resulting in groceries sales and direct to consumer markets increasing their sales of seafood in the region. Efforts to educate the public about the health and environmental benefits of buying local seafood would reinforce consumer market growth, and in return result in the public gaining greater access to high quality seafood.
- Invest in Infrastructure and Food Science Research while Protecting Access to Public Infrastructure that Supports Fishing. Protecting the fishing industry’s access to public infrastructure and working waterfronts is of critical importance to its long-term viability. Furthermore, fish processing largely happens via manual labor, which is exceptionally challenging during a pandemic that requires social distancing. Greater cold storage capacity would also greatly enhance seafood processing capacity, and consequently stabilize fisheries during disruptions when prices fall. Cold storage on boats has also been used effectively to reduce lobster mortality during the warmer months. Support for research on how to develop automated processing capacity would advance the ability of seafood dealers to process larger quantities of seafood during a pandemic.
- Consider Fishing Regulations When Establishing Assistance Program Deadlines. Compared to many other sectors of the economy, fisheries-related businesses are somewhat unique in their seasonal nature that is influenced by many socio-environmental factors such as: regulatory fishing seasons, tourism-driven economies, and seasonal patterns of fisheries species.
- Promote the Health and Safety of Fishing Families. Continued access for fishing communities to health care and services is critically important, especially in the midst of a pandemic that the industry is highly vulnerable to.
- Expand Funding for Training Community Health Workers (CHW’s). The “Navigators” program of Fishing Partnership Support Services in New England is a successful blueprint for such programs and has been extremely well received for its community-driven model.
- Continually Assess the Unique Needs of Fishing Businesses and Communities. Our report provides an initial overview of the challenges facing fishing communities and their perceived needs for overcoming these challenges. However, as the COVID-19 pandemic continues, these challenges and needs are certain to evolve.

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**FEMA**

**Region I COVID-19 Long-Term Recovery Task Force  
Fishing and Aquaculture Resource Guide  
July 2, 2020**

### Action Items as of July 2, 2020 for State of Connecticut

- Circulate information and determine unmet needs for Fisheries and Aquaculture
- Review proposed outcomes from
- Determine if need for Outcome-driven, Solutions-based Team

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## About the Global Resilience Institute

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