

**COMMERCIAL  
FISHERIES OF  
TILLAMOOK  
COUNTY**

**ECONOMIC IMPACT REPORT**

**SEPTEMBER 2019**

## ACKNOWLEDGMENTS

First and foremost, we must thank and acknowledge the 30+ crew members, dock workers, captains, and fishing business owners who met with us, answered our surveys, and provided critical insight to help inform the development of this report, and the development of other reports and programs. Thank you also to our Advisory Committee including John Holloway, Brian Trotter, Valerie Folkema, Terre Cooper, and Mary McArthur. Your time, insights, suggestions, contributions, and critiques were vital to the development of this report. Much gratitude to the Oregon Department of Agriculture, Oregon Department of Fish and Wildlife, the Oregon Coast Visitors Association, and Visit Tillamook Coast for making economic and landings data publicly available and responding to our inquiries. And additional thanks to the Pacific Fisheries Information Network, for the extra lift in creating additional data sets needed to complete this report. We would also like to extend our sincere gratitude to all organizations working to enhance the seafood value chain in Tillamook County and to the Ford Family Foundation for funding this work. Finally, we would like to recognize the Morro Bay Commercial Fishermen's Organization and Lisa Wise Consulting, Inc., for providing the example of how an economic impact study can and should be done. In particular, a big thank you goes to Jeremiah O'Brian for sharing the Morro Bay Commercial Fisheries Economic Impact Report years ago and encouraging us as well as others to utilize these reports as a tool for communication.

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*Photos by Trav Williams, courtesy of Visit Tillamook Coast*

## INTRODUCTION

### State of the industry

The Port of Garibaldi, Tillamook fishermen, local and regional non-governmental organizations, academic institutions, and local fishing businesses are actively working to strengthen their seafood economy and advance opportunities for the fishing industry around Tillamook County. Since 2015, there has been a particular focus on the small-scale seafood value chain in the fishing community of Garibaldi, Ore., and the surrounding area of Tillamook County. This has been driven by the vision and initiative of key stakeholders in the region and local entrepreneurs looking to build a sustainable local fishing economy. A core team has developed over the past three years to guide and support the development of a North Coast seafood value chain while using a WealthWorks<sup>1</sup> approach. This team includes Columbia Pacific Economic Development District (Col-Pac), the Port of Garibaldi, Visit Tillamook Coast, Rural Development Initiatives, Inc., Tillamook Small Business Development Center, Economic Development Council of Tillamook County, and Food Roots. These partners all have an interest in a vibrant future for the seafood industry in Tillamook County, while bringing significant assets and capacity to the table. Funds to advance seafood value chain efforts on the North Coast were granted to Col-Pac from The Ford Family Foundation and led to the hiring of Ecotrust in January 2018 for a short-term value chain coordination role. Ecotrust, in collaboration with the Economic Impact Report Advisory Committee, developed this report as a part of this seafood value chain initiative.

<sup>1</sup> *WealthWorks brings together and connects a community's assets to meet market demand in ways that build livelihoods. This approach aims to advance a region's overall prosperity and self-reliance, strengthen existing and emerging sectors, and increase jobs and incomes for lower-income residents and firms — all at the same time.*

This Seafood Value Chain Initiative has led to collaboration with local seafood businesses, fishermen, and others to develop programs providing technical business development assistance and to support the marketing of local seafood. A number of guiding documents and resource reports have been created, including the *Garibaldi Seafood Initiative Value Chain Assessment* and the *Port of Garibaldi Integrated Seafood Services Hub Infrastructure Needs Assessment*. A term paper was also created in collaboration with the Massachusetts Institute of Technology (MIT) Sloan School of Management. The term paper details options for creating alternative channels for fish waste that create a positive input ecologically and economically.

Tillamook County's working waterfronts are deeply intertwined with tourism and aquaculture activities. Clean water, a healthy natural environment, unique natural resources, rare natural features, picturesque beaches, ocean views, along with a sense of wonderment and opportunity that radiates from the landscape, drives both marine-industry and tourism to the area. Here, visitors dig for clams, go on charter tours, try their luck with crabbing off the piers, hire guides to help catch salmon, and go on kayaking tours. In these same areas, oyster farming activities are thriving, and, in 2019, an entrepreneur will begin growing dulse seaweed in large holding containers on the dock at the Port of Garibaldi. With a long history of these activities occurring side by side, these working waterfronts provide a dynamic and resilient system that offers both social well-being and continuous economic benefits.

## Challenges

From February to April 2019, our report team conducted 26 in-person surveys with various commercial fishing industry stakeholders, including crew members, captains, dock workers, and other seafood business owners. Those survey responses led to the discovery that 10 out of 15 people reported struggling financially to meet personal or household needs in the past three years. Crew members and dock workers reported struggling more often than captains and business owners. Of 18 responses regarding "personal struggles," the top four challenges reported by interviewees were housing, income, job stability, and taxes. When responding to questions about "business challenges," captains and/or boat owners and seafood business owners responded with workforce issues, marketing, insurance, and retirement planning as their top four challenges. To further the point, none of the captains or small business owners planned to retire in the next 10 years, and none have a retirement plan in place.

Encouragingly, respondents did show a desire to grow their operations, demonstrating a positive outlook for those engaged in commercial fishing. Of captain and/or boat owner and crew member responses, six said they would like to buy a boat, and eight said they would like to buy a permit. Obstacles identified to owning a boat included the need to own a permit to justify boat ownership, instability of the fishing industry, lack of port infrastructure, and age. Obstacles to owning a permit were described as the need for boat ownership to justify purchasing a permit, the limited availability and high cost of permits, and the overall instability of the fishing industry.

Repairing the jetty at the mouth of Tillamook Bay, a new ice plant, increased processing, and more commercial boat slips were among the top four priorities to be addressed by respondents who were asked to envision what a thriving port would look like five years in the future. Regarding “increased processing,” there was, for some, a desire for shrimp processing to return to the Port of Garibaldi, which ceased in the early 2000s after more than 30 years of innovation and production at locally-owned shrimp processing facilities.

Other challenges facing the fishing industry include changes in the natural ecosystems and resulting policies and management decisions to protect consumers and fish/animal stocks. For example, the Dungeness crab fishery, which is the most economically important wild catch in Tillamook County, experienced recent issues with the appearance of domoic acid<sup>2</sup> in crab meat annually during the fishing season—once thought to be rare anomaly on the Oregon Coast. There have also been recent issues regarding whale entanglements with crabbing gear (primarily in California). Both of these issues are driving new management decisions that restrict the Dungeness crab fishery along the Oregon Coast and, pending decisions yet to come, this fishery may see further fishing season restrictions and mandatory gear modifications. Currently, restrictions are felt mostly through delayed starts to the fishing season and temporary fishing moratoriums.

While challenges in the fishing industry can be substantial, the fishing communities of Tillamook County have proven to be resilient. Recently, the Port of Garibaldi has seen multiple new entrepreneurs lease space on the dock, adding vital infrastructure that the fishing community has demonstrated as priorities. For example, in 2019, a new 20-ton ice machine was installed by a private business at the port. Another company is investing in the installation of freezer containers to support more storage and availability of bait, a vital resource during crab season. In the future, as these businesses develop, they plan to provide further services and infrastructure to support the local fishing fleet.

## Data sources

Data for this 2018 Economic Impact Report have been sourced from Pacific Fisheries Information Network (PacFIN), Oregon Department of Fish and Wildlife (ODFW),<sup>3</sup> Oregon Department of Agriculture (ODA), and other sources. All commercial fishery landings data is for Tillamook County, Ore., unless otherwise noted. Commercial landings data are derived from fish ticket data attributed to six locations where commercial fishing activities occur, including Salmon River, Pacific City, Sand Lake, Netarts Bay, the Port of Garibaldi, and Nehalem Bay. The most important resource was the more than 45 meetings, interviews, and discussions held with the fishing community, local stakeholders, and fisheries managers. The willingness of these individuals to open up and share their insights, perspectives, and desires really highlights the authenticity of those engaged in the commercial fisheries and the resounding desire to build a lasting and stable fishing economy.

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<sup>2</sup> *Domoic acid is a kainic acid-type neurotoxin that causes amnesic shellfish poisoning (ASP). It is produced by algae and accumulates in shellfish, sardines, and anchovies. When sea lions, otters, cetaceans, humans, and other predators eat contaminated animals, poisoning may result.*

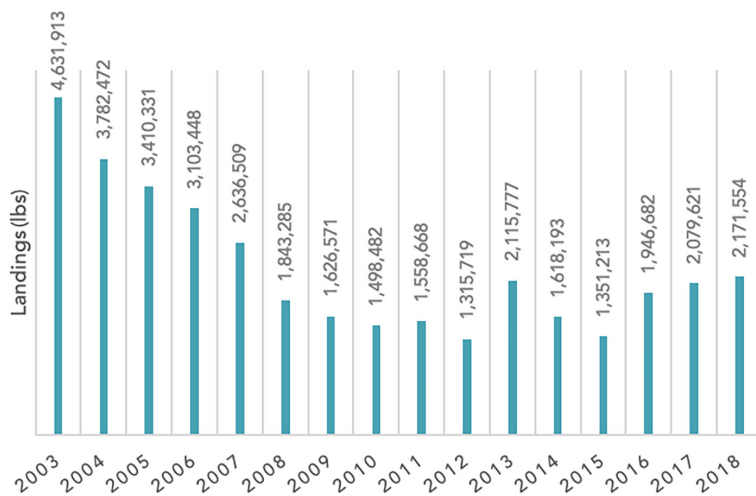
<sup>3</sup> *ODFW periodically produces statewide economic impact reports for commercial fisheries; for further reading, their most recent “Oregon Commercial Marine Fisheries” report was published in September 2019, at the same time as this report.*

## Overview of landings and earnings

As has been described, fisheries play a large part in the Garibaldi and Tillamook area economy and play an even more important role in Garibaldi's identity. Like the rest of the Oregon coast, Garibaldi has dealt with significant variability in their seafood supply. After the so-called fisheries boom of the 1980s, fisheries along the West Coast of the United States experienced significant population declines over the last 25 years. Due to the implementation of conservation-based management strategies, some of which had devastating impacts on the groundfish<sup>4</sup> fishing fleet and coastal communities, some fish populations, such as rockfish and red sea urchin, have seen rebound and stabilization. Other fisheries, such as salmon, have experienced some favorable years in terms of returns and allowable catch. However, on the whole, their populations continue to trend downward, even with conservation management strategies in place. As well, variability occurs naturally within fish populations, even within those considered to be the most stable.

To highlight that variability, 2017 and 2018 represent two of the most successful years, in terms of total landings revenue, for the region in the last 16 years. Just two years prior, in 2015, total landings revenue was the lowest during the same period. This variability was due to a swing in the harvest of Dungeness crab, which is the most valuable species in Tillamook County and the state of Oregon. The successful harvests in 2017 and 2018 have been the result of the combination of a strong market and harvest of Dungeness crab (\$3.08M) coupled with record landings and/or ex-vessel value (EVV)<sup>5</sup> for lingcod, albacore tuna, black rockfish, and bay clams.

### Tillamook County, total landings of all species 2003-2018

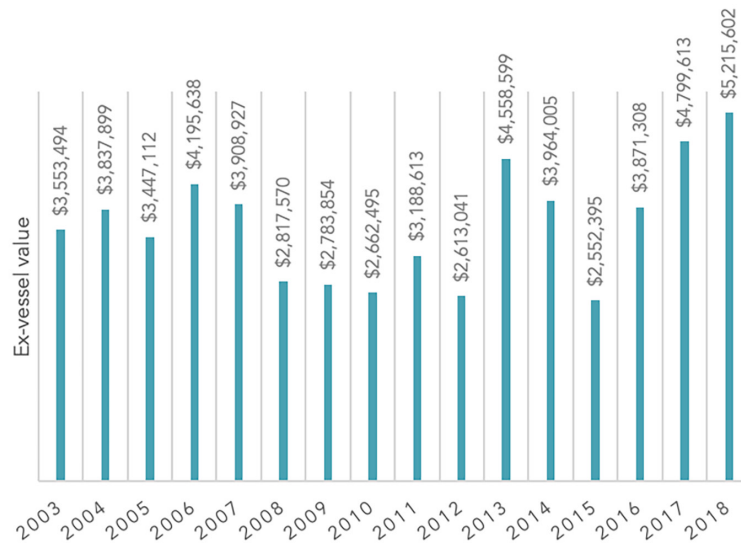


Source: PacFIN, ODFW

<sup>4</sup> Groundfish are fish that live on, in, or near the bottom of the body of water they inhabit. Some typical saltwater groundfish species are rockfish, halibut, and sole.

<sup>5</sup> Ex-vessel value (EVV), also known as dockside value, landed value, or gross landed value, is a measure of the monetary worth of commercial landings, calculated in this report as the average price per pound of landed fish multiplied by the total pounds landed.

## Tillamook County, landings revenue of all species 2003-2018



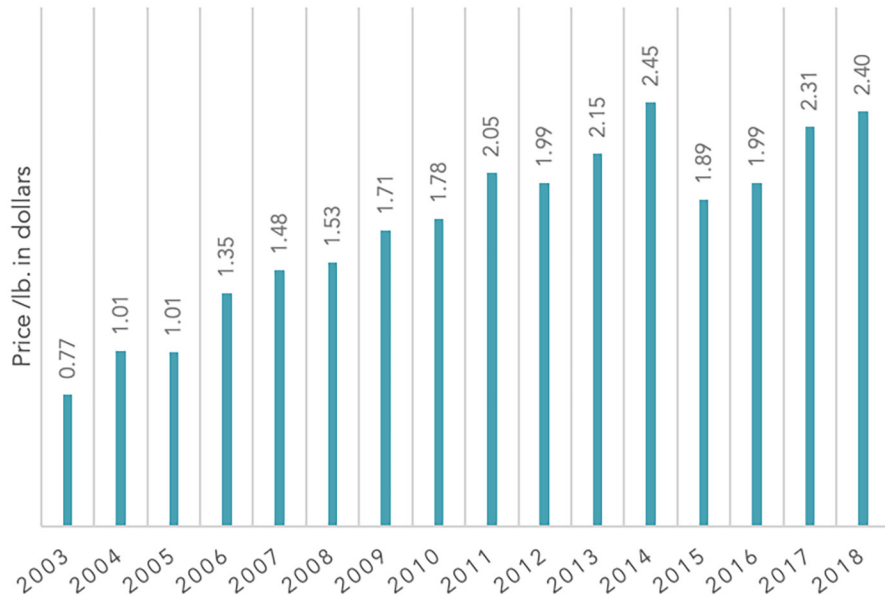
Source: PacFIN, ODFW



## Price per pound

The measure of price per pound is dependent on the fisheries in which the local fleets engage. As such, participation in higher value, lower volume fisheries increase the overall average price per pound, while participating in higher volume, lower value fisheries will reduce the overall average price per pound. Price per pound is a key performance measure of a commercial fishing fleet's abilities to adapt and take advantage of shifts in the market, changes in regulation, and other opportunities at sea. In 2003, the average price per pound at the dock was \$0.77 (or \$1.05 when adjusting for inflation to 2018 dollars) and witnessed a fairly steady increase up to 2014. In 2014, the average price per pound peaked at \$2.45 (or \$2.65 when adjusting for inflation to 2018 dollars) and fell to below \$2/lb in 2015. Over the past four years, prices have steadily crept back upward, and in 2018, the average price was \$2.40/lb.

### Tillamook County, average price per pound 2003-2018

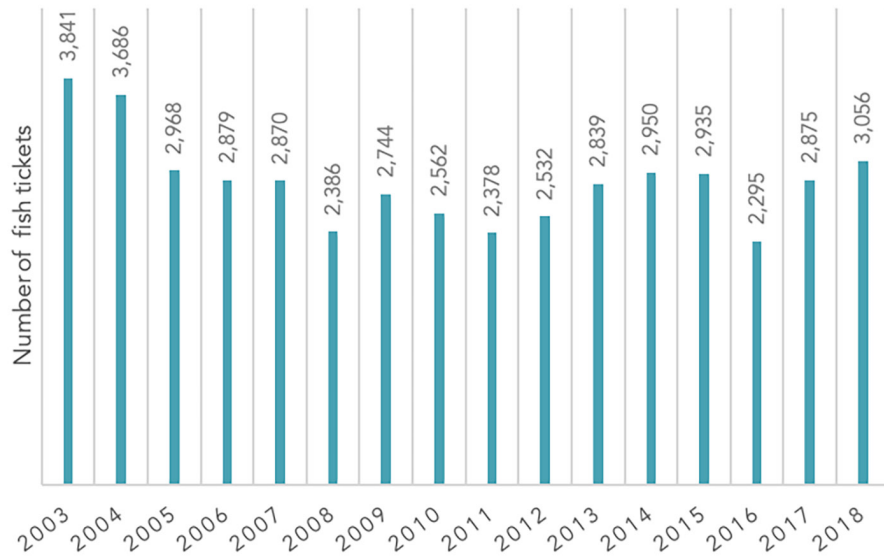


Source: PacFIN

## Fish tickets, trips, and vessel IDs

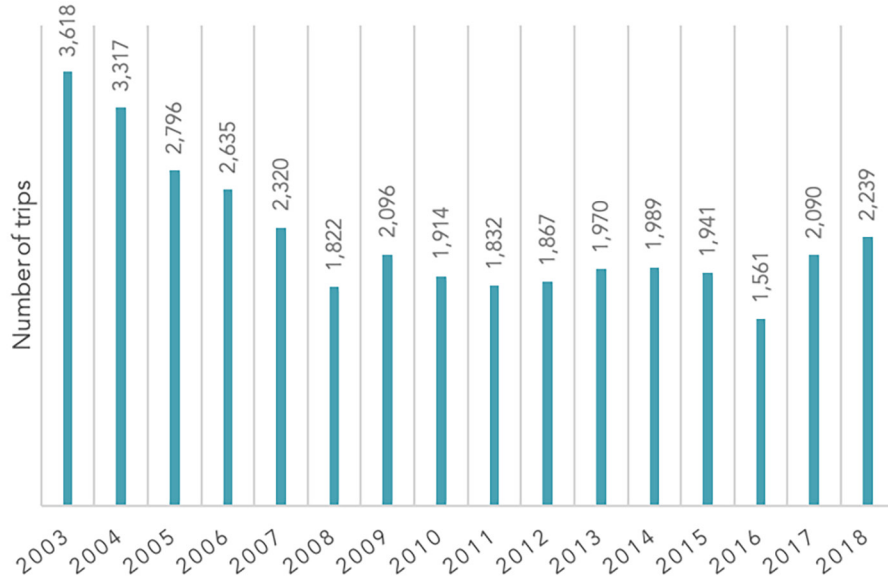
Fish tickets, the number of commercial fishing trips taken from local ports, and the number of unique vessel ID numbers that offload seafood products at local ports are all measures that indicate the activity of the ports. Looking at this information as a whole and measuring the activity of the ports allows for insight on the health or vibrancy of the commercial fishing industry and its ability to stay active within its portfolio of fisheries. While these indicators have been fairly stable from 2008 to 2018, larger fluctuations can also be seen. In the tables below, the variance across years correlates with the rise and reductions of allowable catch, available populations of species, management regulations, and other factors.

### Tillamook County, fish tickets 2003-2018



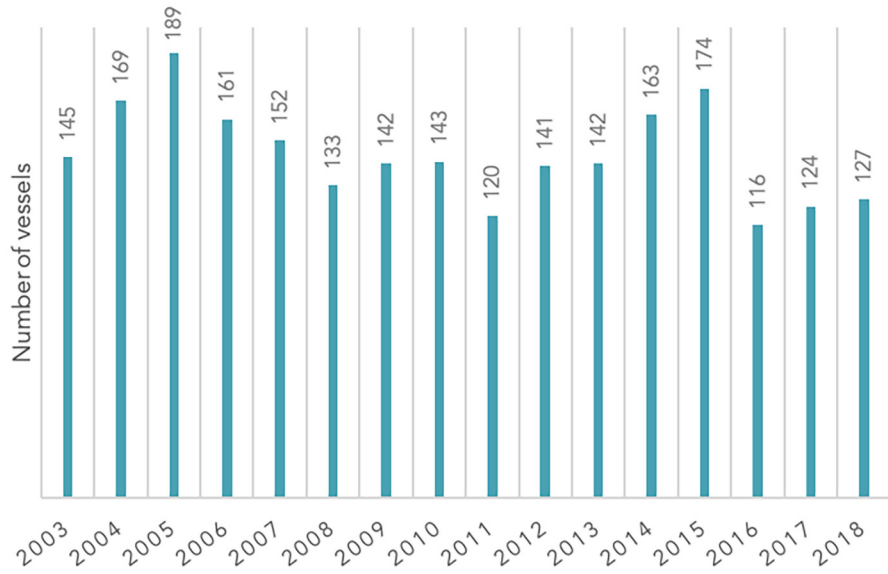
Source: PacFIN

### Tillamook County, fishing trips 2003-2018



Source: PacFIN

### Tillamook County, active vessels 2003-2018



Source: PacFIN



*Photo by Kristen Penner (left); photo courtesy of Fishpeople Seafood (right)*

## IMPORTANT FISHERIES

### Overview

The Tillamook County fishing fleet is a small boat “hook-and-line” fleet. The commercial fishing vessels found in Pacific City and Garibaldi utilize long-lines, rod-and-reel, and pot trap fishing methods to catch target finfish species. As well, the fleet is highly dependent upon pot traps for harvesting Dungeness crab. Bay clams, an emerging fishery, are harvested by hand raking in intertidal zones and diving, using hookah or surface supplied air systems, to hand harvest in subtidal zones.

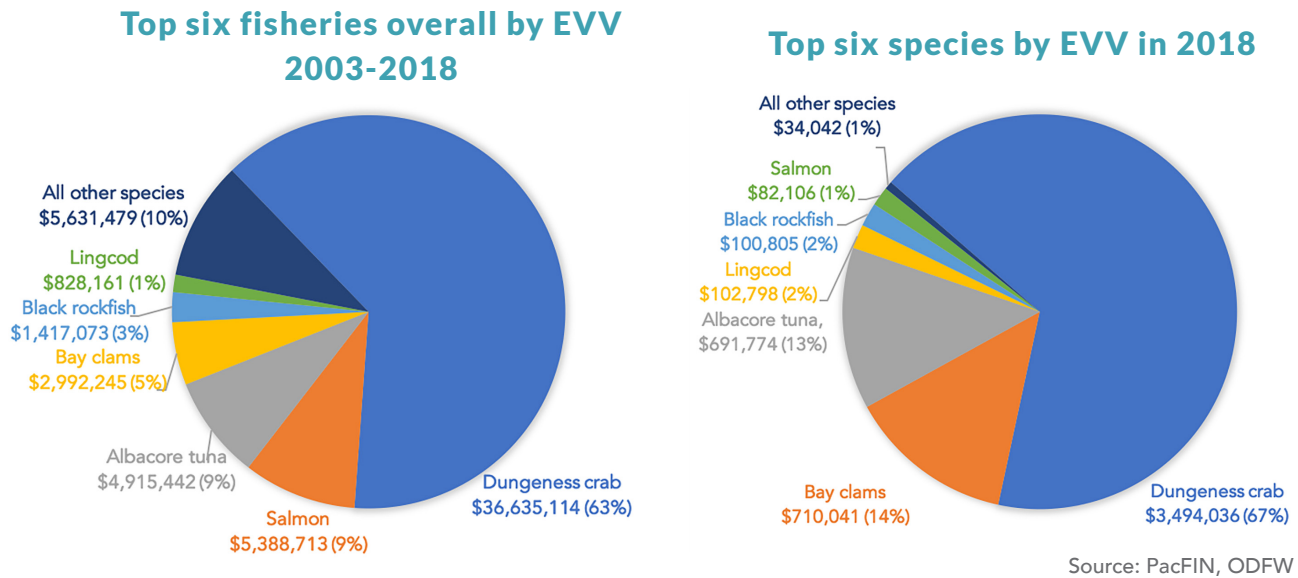
Over the past 15 years, from 2003 to 2018, more than 28 species were landed commercially in Tillamook County. Landings include 11 species of rockfish, one highly migratory species (albacore tuna), two species of salmon (chinook and coho), four species of shellfish (bay clams and Dungeness crab), three species of flatfish (dover sole, petrale sole, and pacific halibut), and seven other species of fish managed as a part of the groundfish fishery complex (e.g. sablefish, cabazon, lingcod, and others). Of the 28 species, 12 generated cumulative EVV of over \$100,000 during this 16-year timeframe.

### Species diversity

Like other commercial fisheries based on the Pacific Coast, the Tillamook county-based fishing fleet has experienced “boom and bust” cycles related to species availability, including pink shrimp, Dungeness crab, salmon, and various groundfish species. The rise and fall of fish populations can be

attributed to both natural and man-made conditions, such as overfishing, warming oceans, habitat loss, conservation-based fisheries management, and much more. These cycles have can have drastic impacts on the profitability of fishing communities and their livelihoods.

Tillamook County’s seafood industry is currently dominated by six main fisheries, which contributed to 90% of the total landings revenues during the past 16 years. Of all the species landed, Dungeness crab comprised 63% of revenues and provided \$36,635,114 to the local economy.



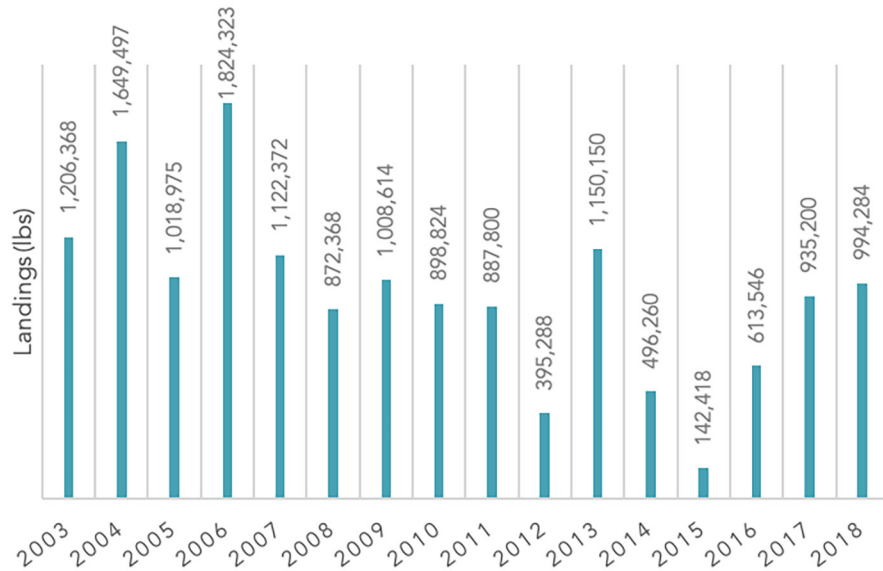
A snapshot of the successful harvest in 2018 reveals the top six fisheries by EVV are Dungeness crab, bay clams, albacore tuna, lingcod, black rockfish, and salmon. Both bay clams and albacore tuna had record setting years and became the second and third most valuable fisheries in Tillamook County by EVV, while salmon, once a regular contender for the second spot, has fallen to the sixth most valuable fishery.

## Top economically valuable species

### Dungeness crab

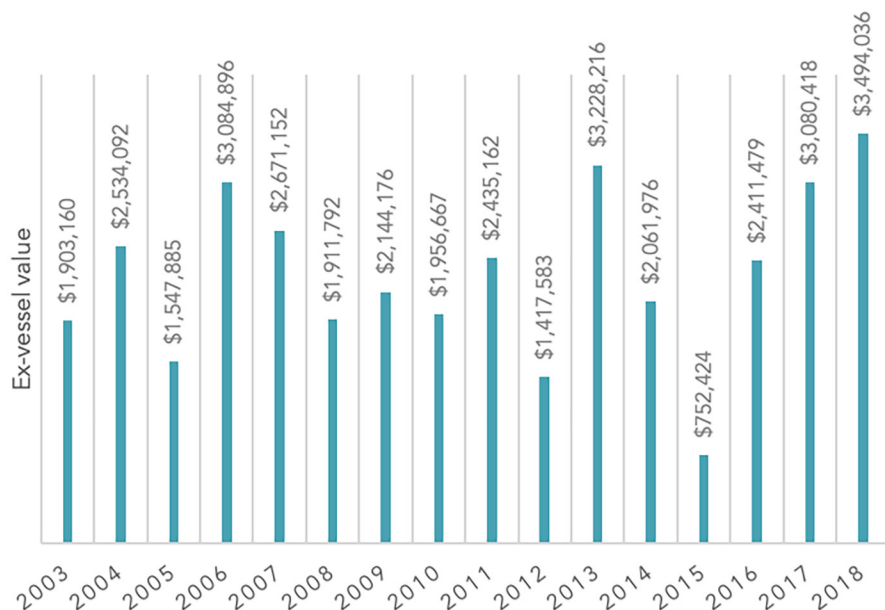
Dungeness crab landings are the driving force and most economically important fishery for Tillamook County fishing fleets. Typically, 90% of the Dungeness crab harvest is landed in the first two months of the season's opening (December or January). However, the season carries on into August. From April to August is a lower volume "summer crab" harvest in which the price per pound can jump. In 2018, during these months, fishermen received an average of anywhere from \$1.39/lb to \$4.53/lb *above* the reported initial opening price of \$2.75/lb. These increased prices make an important and lucrative fishery for smaller boats with low overhead costs. Many fishermen in the crab fleet continue to participate during these months, and much of this product is sold through local retail and restaurant channels. Annual landings have fluctuated dramatically from 2003 to 2018 but have seen three consecutive years of improved landings and revenue since 2015. Dungeness crab demand has been steady, with stable prices despite fluctuating harvest levels. Landings of Dungeness in Tillamook vary similarly to Oregon's and are in line with the Oregon average price per pound, although the last three years have seen prices between \$0.20-0.40/lb higher than Oregon's average.

### Dungeness crab, landings 2003-2018



Source: PacFIN

## Dungeness crab, EVV 2003-2018



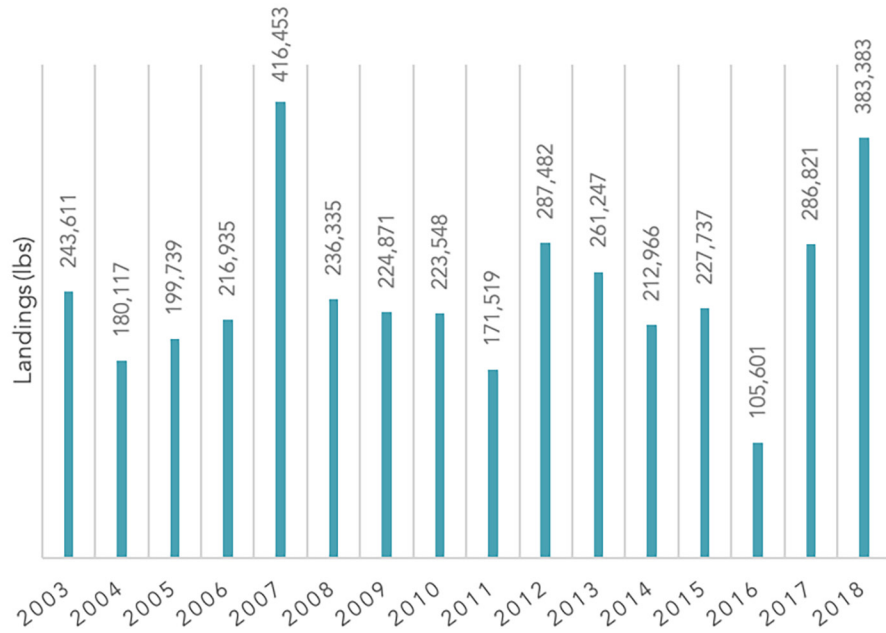
Source: PacFIN

### Albacore tuna

Albacore has seen a recent jump in revenue during the last two years, with both landed weight and price at or near recent historical highs. Garibaldi landed 7% of Oregon’s albacore in 2018, a record high. After a record low harvest in 2016 of 105,601 lbs, 2017 brought in 286,821 lbs, followed by another increase in landings to 383,383 lbs in 2018, bringing in a record high EVV of \$691,774. Prices jumped upward from \$0.69/lb in 2017 to an average of \$2.22/lb and settled back to \$1.80/lb in 2018, still \$0.13 higher than state average. In Tillamook County, albacore is troll or pole caught and is sold off the boat in three forms: blast frozen, brine frozen, and fresh. In 2018, Garibaldi Landing was designated as an unloading station of the American Albacore Fishing Association,<sup>6</sup> encouraging more landings and revenue to be generated at the Port of Garibaldi. Additionally, more fishermen have begun to pursue direct sales off their boats to consumers to receive higher margins at \$3/lb on average. Some fishermen are now building this sales approach into their business plans. This fishery has been given a “Best Choice” green rating by the Monterey Bay Aquarium Seafood Watch program.

<sup>6</sup> *The American Albacore Fishing Association (AAFA) north fishery and the American Western Fish Boat Owners Association (WFOA) North Pacific fishery, a fishery that operates off the west coast, is certified by the Marine Stewardship Council (MSC), which is important to increasing market value. AAFA promotes marketing, sales, and supports the responsible management of the albacore stock. AAFA’s efforts include paying for MSC certification of the fishery and AAFA tuna was notably the first MSC certified tuna product in the world. Garibaldi fishermen are active in AAFA.*

## Albacore tuna, landings 2003-2018



Source: PacFIN

## Albacore tuna, EVV 2003-2018



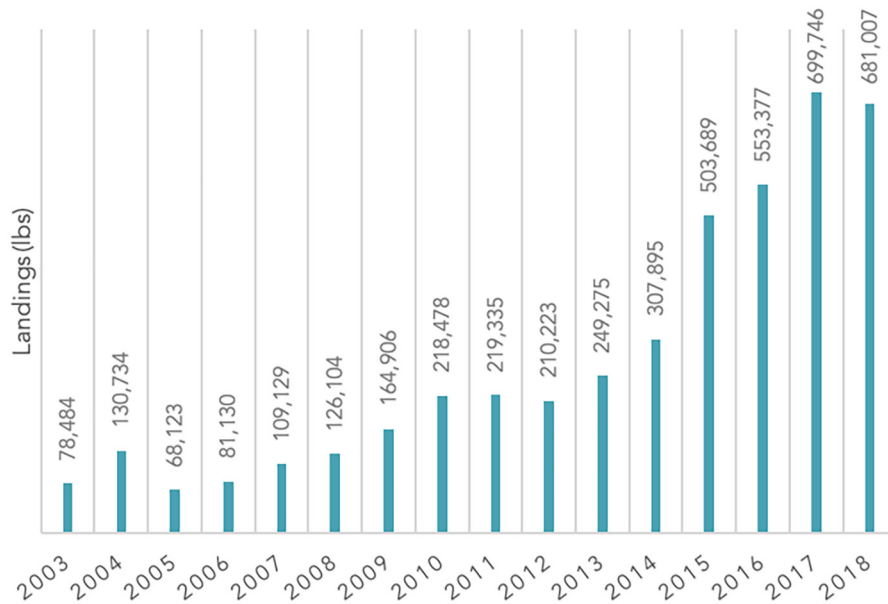
Source: PacFIN



## Bay clams<sup>7</sup>

The bay clam fishery consists of three species of clam: gaper clams, basket cockles, and butter clams. Nearly all of the bay clams commercially harvested in Oregon are landed in Tillamook County each year. Over the last five years, from 2013 to 2018, this fishery has accounted over \$2M in EVV. In 2018, bay clams brought in a highest ever recorded EVV of \$710,041. For the first time ever, bay clams became the second highest contributing fishery in EVV for Tillamook County. After years of being a small producing fishery, entrepreneurs have created markets for gapers and cockles driven mostly by the bait market for Dungeness crab, which continues to deliver higher prices year-over-year. In 2018, the average price across these species was \$1.04/lb, up \$0.15/lb from 2017. In 2010, they averaged \$0.50/lb, and in 2003, bay clams averaged just \$0.33/lb. There seems to be potential for higher prices as fishermen in the State of Washington are fetching from \$4/lb to as much as \$7/lb for gapers and receiving around \$3/lb for cockles.

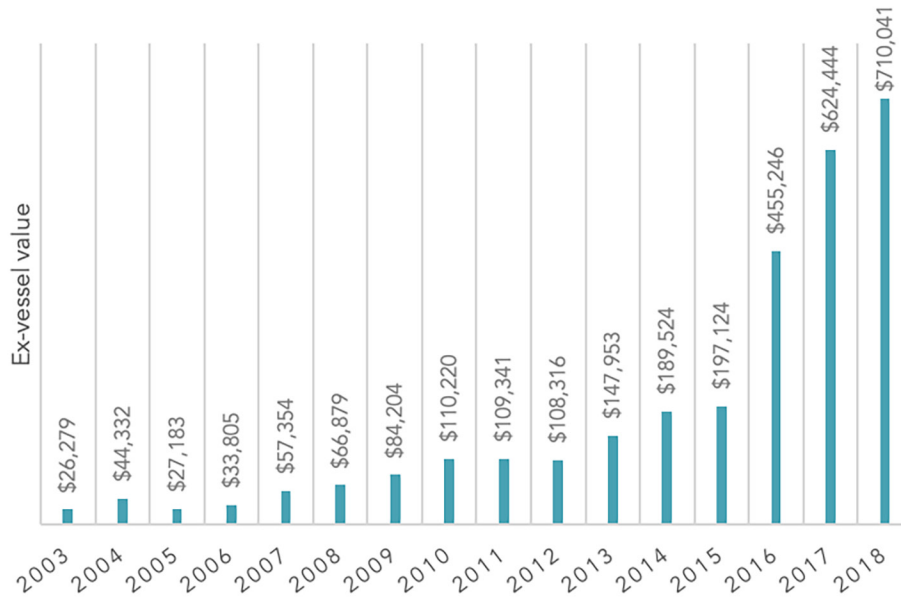
### Bay clams, landings 2003-2018



Source: PacFIN, ODFW

<sup>7</sup> As of 2018, the Tillamook Bay annual dive harvest for gaper clams is capped at 235,000 lbs and 185,000 lbs for basket cockles. While limited by seasonality and tides, commercial shore harvesting of clams is an open access fishery with no harvest limits. Fishermen have reported that this open access fishery provides as an entry into commercial fishing, as the resource is more easily accessed and costs to enter the fishery are nominal.

## Bay clams, EVV 2003-2018

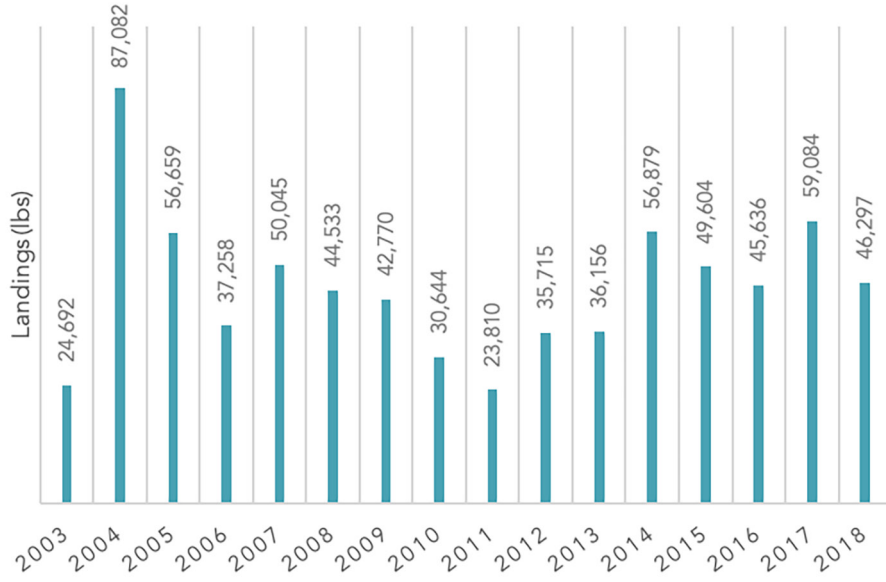


Source: PacFIN, ODFW

### **Black rockfish**

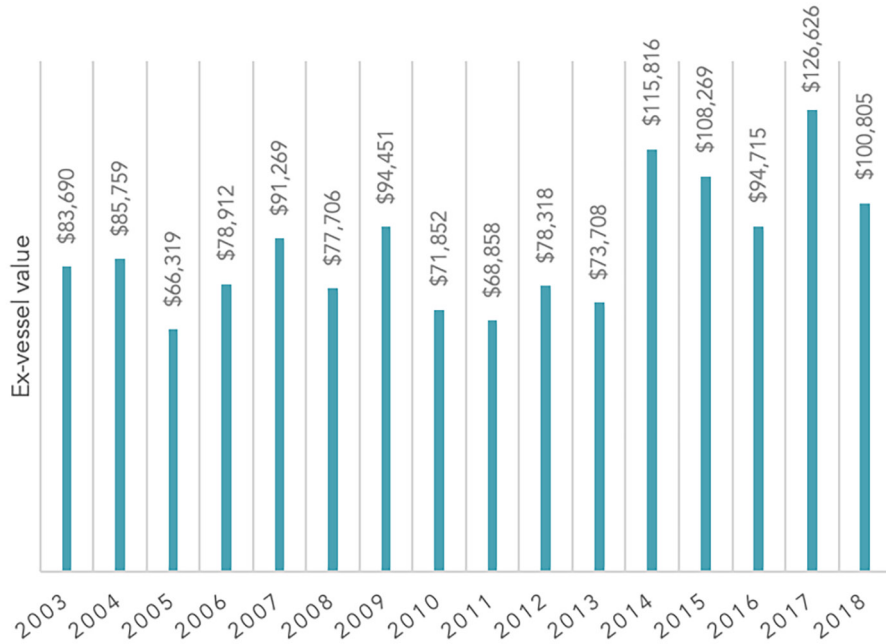
Black rockfish has proven to be a modest and consistent fishery for the Tillamook fishing fleets. The year 2017 saw record revenue, on the combination of a solid harvest with good market price. Since 2003, black rockfish has been the most plentiful nearshore catch in Tillamook County, while lingcod has been second. Together, the two species have accounted for 85% to 96% of the total nearshore fishery harvest since 2012. Since 2011, black rockfish has hovered around \$2/lb. In 2018, they fetched an average price of \$1.95/lb. A record of \$126,626 in EVV was recorded in 2017.

## Black rockfish, landings 2003-2018



Source: PacFIN

## Black rockfish, EVV 2003-2018

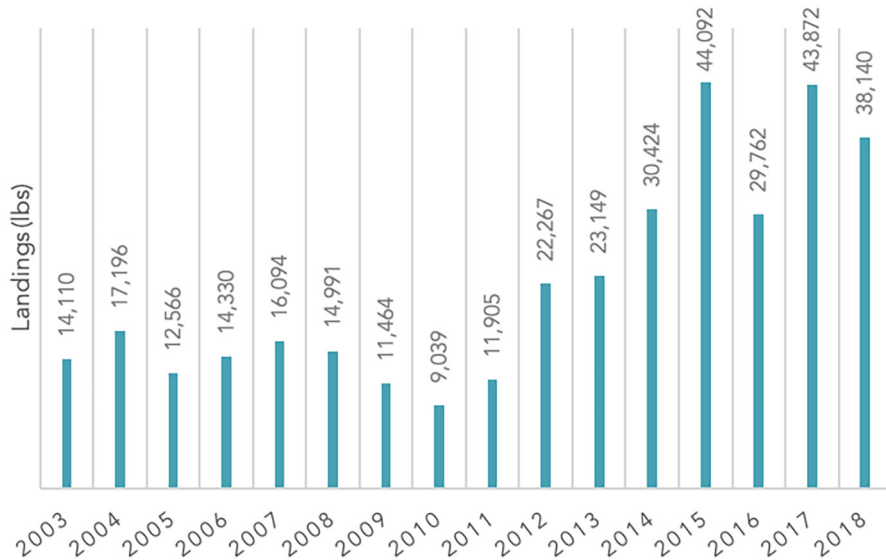


Source: PacFIN

## Lingcod

Lingcod is unique in Garibaldi in that it garners a much higher price per pound than the Oregon average (\$2.70/lb vs. \$1.54/lb in 2018). This could be due to the exclusive use of the hook-and-line and pot trapping catch methods practiced by the fleet helping to establish a higher quality product. Reportedly, a sales market for live lingcod and black rockfish may also be helping to maintain prices. In 2017, Garibaldi fishermen saw a record price per pound of \$2.78 as well as record landings revenue of \$121,534. Lingcod caught by hook-and-line meets the “Best Choice” rating by Seafood Watch, and Oregon’s harvest makes up 60% of the North American supply.<sup>8</sup> Tillamook’s hook-and-line fisheries for both rockfish and lingcod are reported to be superior in quality over trawl-caught species. Interestingly, lingcod, as an open access fishery,<sup>9</sup> also provides as a unique opportunity to startup fishermen in the area.

### Lingcod, landings 2003-2018

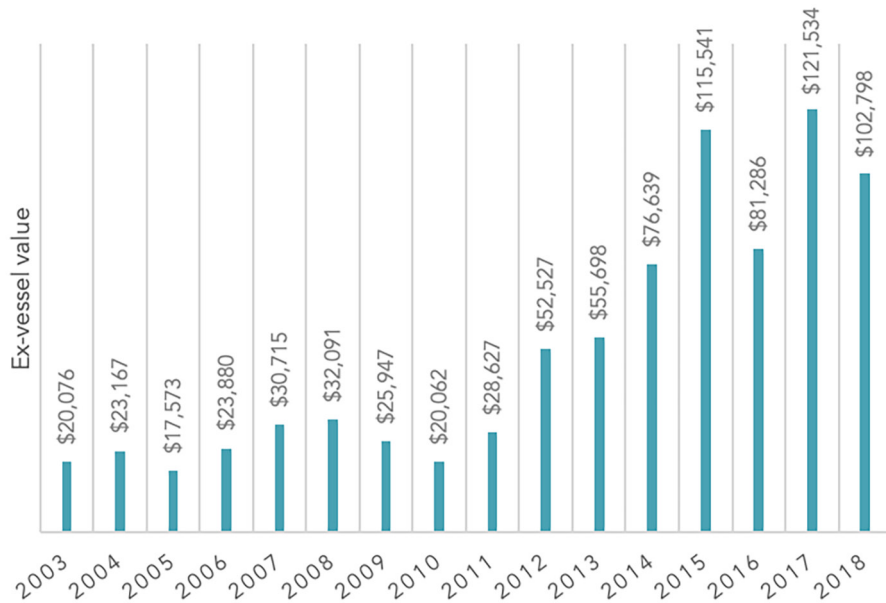


Source: PacFIN

<sup>8</sup> Rodomsky et al. 2018. “The Oregon Commercial Nearshore Fishery Data Update: 2017.” Accessed from [https://www.dfw.state.or.us/mrp/publications/docs/2017\\_Commercial\\_Nearshore\\_Fishery\\_Data\\_Update.pdf](https://www.dfw.state.or.us/mrp/publications/docs/2017_Commercial_Nearshore_Fishery_Data_Update.pdf).

<sup>9</sup> Open access is the condition where access to the fishery (for the purpose of harvesting fish) is unrestricted; i.e. the right to catch fish is free and open to all. (Organisation for Economic Co-operation and Development). However, commercial fishing and fishing vessel licenses are still required.

## Lingcod, EVV 2003-2018

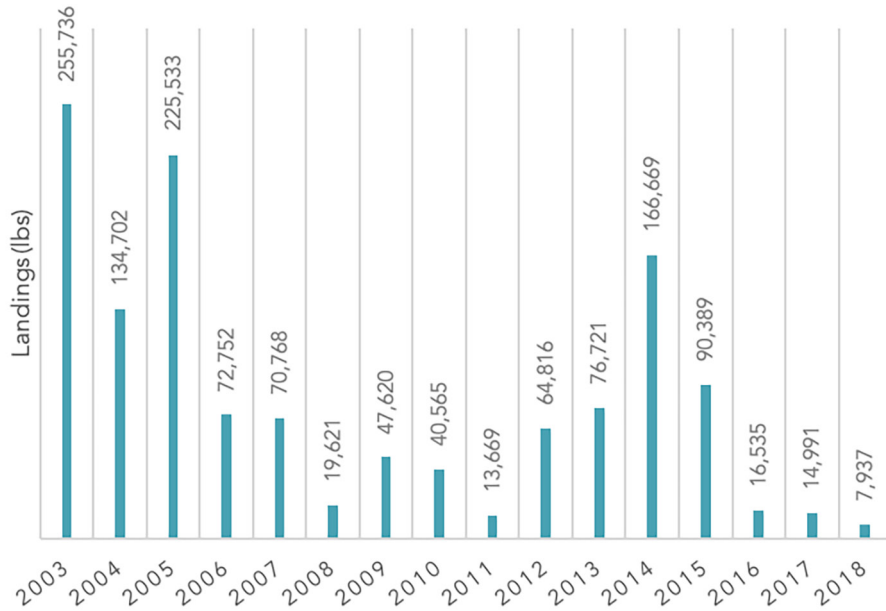


Source: PacFIN

### **Salmon**

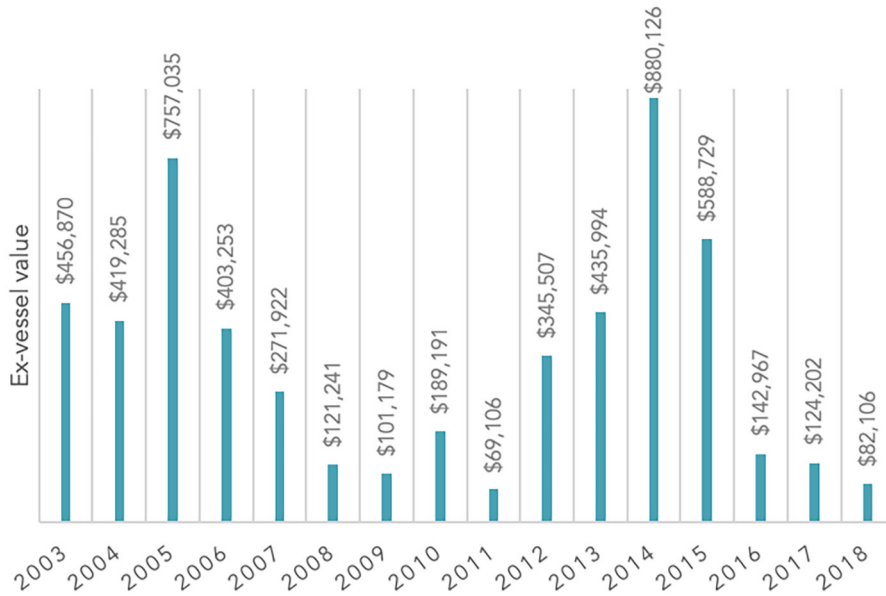
The salmon fishery consists of chinook and coho salmon, which are some of the most prized species of salmon, for taste and texture. The fishery has been highly cyclical, with four to five good years, followed by four to five poor years. Tillamook County is currently in a very poor down cycle, with three straight years of commercial landings of less than 20,000 lbs. The only recent bright spot for the salmon fisheries in Tillamook County is the premium \$3+/lb average fetched at the dock since 2002. The salmon harvest is steeply down. Once the top earning fish species in EVV for Tillamook County, in 2018, the annual landings of salmon hit an all-time low of just 7,937 lbs. To counter the major reductions in landings, salmon have seen dramatic increases in price and remain a contributor to the local economy. In 2018, salmon fetch an average price of \$10.30/lb at the dock, the highest price per pound for any species caught in the Tillamook area. The EVV for this fishery fell to \$82,106 in 2018.

### Salmon, landings 2003-2018



Source: PacFIN

### Salmon, EVV 2003-2018



Source: PacFIN



*Photos by Trav Williams, courtesy of Visit Tillamook Coast*

## MARINE DEPENDENT INDUSTRIES

The Port of Garibaldi's working waterfront is composed of a network of industries working in tandem to support the livelihoods of many local individuals and families. This business matrix supports the commercial fishing trade, contributes to a growing tourism economy, and maintains a vibrant component of Tillamook County's cultural identity. The commercial fishing fleet, seafood processors and buyers, aquaculture businesses, recreational fishing, and marine supply and repair businesses are key sectors of the local marine economy.

### Port of Garibaldi

At the heart of Tillamook County's commercial fishing industry is the Port of Garibaldi—a growing tourism hub which supports waterfront business activities and provides vital access to the abundant waters of the Tillamook Bay estuary and Pacific Ocean. The Port operates as a special district and governmental agency, managing the land, harbor, and critical public infrastructure.

Balancing the mix of recreational and commercial use is a constant challenge, but the Port works to accommodate the priority needs of all users and support the viability of each industry. The Port of Garibaldi is home to restaurants, fish markets, seafood processing, a lumber mill, commercial and charter fishing operations, RV parks, and lodging establishments. The picturesque, compact harbor has moorage for 277 vessels. Two docks are devoted to commercial boats with 53 slips with water and power hookups. Additional commercial vessels can be accommodated in transient moorage. As of November 2018, about eight commercial vessels are on the waitlist for a boat slip. The Port is also home to US Coast Guard Station Tillamook Bay.

In 2013 to 2014, the Port raised more than \$6.5 million to complete reconstruction of its main commercial wharf. This project was completed successfully in 2015 and included installation of new

amenities designed to improve working conditions for the fleet, such as a new public hoist which commercial fishermen can access and operate by cardlock.

The Port employs nine full-time staff to manage its property and operations, which include smaller infrastructure and services such as the public boat ramp and fish cleaning station, an outdoor gear storage area for commercial fishermen, and a recycling program for used fishing gear—all in addition to many visitor amenities.

## **Commercial fishing fleets**

The majority of regular commercial fishing activity is carried out by “day boats.” Today, fishing vessels in Tillamook County utilize highly sustainable gear types (such as hook-and-line gear types and pots) and take short trips, typically less than 24 hours. Although they are much smaller than neighboring ports to the north and south, the beauty of these fleets is that the local catch is of premium quality, most often hitting the docks within a few hours or days of harvest.

Local fishermen catch a wide range of species using different types of gear over many miles of diverse ocean habitat. Tillamook County is home to two commercial fishing fleets: Pacific City’s traditional dory fleet and the more modern fleet of Garibaldi.

The commercial dorymen of Pacific City follow a 115-year tradition of fishing from small wooden vessels, which are trailered to the beach and launched from shore. The majority of these craft were built locally by family boatbuilding businesses. Before the decline of the salmon fishery, hundreds of boats made up this transient fleet, which landed coho and chinook salmon, many species of rockfish, halibut, and crab. Today, only a handful of fishermen are commercially active, and the predominant catch consists of black rockfish and salmon, which is then sold mostly to local markets within Tillamook County. A local mariner association, museum, and annual “Dory Days” festival help keep the tradition of the dory fleet alive.

Garibaldi’s commercial fleet is comprised of more than 50 active, small- to mid-size vessels, varying from aluminum skiffs to wooden salmon trollers and steel-hulled schooners. These vessels range in size from smaller dory boats of about 24 ft in length to larger fishing vessels reaching up to 60 to 70 ft. This fishing community is home to numerous multi-generational family fishing operations. While the Garibaldi fleet is aging much like fishing communities across the nation, there are a number of new entrants and young crew members investing in the region’s fisheries through vessel and permit ownership or leasing. Each active commercial boat represents an independent small business that hires crew members, creating direct jobs. Some boats are fished singlehandedly by the owner/operators, while others (such as larger tuna and crab vessels) have one or more crew members.



## Permits and ownership

As stocks have declined over the past three decades, fisheries management at both state and federal levels has moved away from open access fisheries towards limited entry fisheries<sup>10</sup> and catch shares or individual fishing quota (IFQ) programs. These programs limit who can participate in a fishery by requiring a permit or quota limit for each fishery, thereby creating a type of ownership and measure of wealth within the community.

In 2018, Tillamook County residents possessed 88 limited-entry state commercial fishing permits, including 20 Dungeness crab permits (five 500-pot crab permits, seven 300-pot crab permits, and eight 200-pot crab permits), 38 salmon ocean troll permits, 12 rockfish permits (one which is nearshore endorsed), two Columbia river salmon gillnet permits, six ocean pink shrimp permits, and two ocean scallop permits (now a closed fishery).

In addition to the required quota, permit, or license needed to participate in a fishery, fishermen must also possess individual or crew fishing licenses. In 2018, 101 Tillamook County residents held a total of 146 commercial fishing and crew licenses, including 47 licenses in Tillamook, 26 in Garibaldi, 20 in Rockaway/Rockaway Beach, 18 in Nehalem, 11 held by residents of Pacific City, and the remainder scattered across other county locations.<sup>11</sup>

Limited-entry permit systems have been implemented fishery-by-fishery at various times throughout the years. In 2004, they were introduced into nearshore commercial fishery for rockfish and other groundfish species. Fishermen report that these changes have had a huge impact on entry-level fishermen by substantially increasing the cost of starting a fishing business.

One dory fisherman from Pacific City described this shift and the rising cost of fishing in the following manner:

*There was a time when you could buy a \$50 license, go to sea in a leaky dory and make enough to make a living. Those days are gone.*

*It costs so much to get started: \$38,000 for a boat, trailer, and all the equipment. And then there are the permits, which you can only get by buying out somebody else: \$7,000 for rockfish, \$1,500 per boat-foot for crab (\$45,000 for the one I have), salmon, etc. ... Probably \$90,000 or more just to get started.<sup>12</sup>*

Tracking permit ownership over time is important in order to strategize ways to build local wealth and retain resource access within the fishing community.

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<sup>10</sup> Limited entry is the condition in which permits are finite with a limit to the number of vessels that can participate in a fishery. Permits include regulations regarding gear, size, or species endorsements affixed to the permit. These regulations can change from year to year and can have an effect on the value of a permit.

<sup>11</sup> Information was provided by Oregon Department of Fish and Wildlife through Commercial Boat Licenses, Commercial Fish Dealers, Commercial Fish Licenses, and Commercial Fish Permits datasets. Data was accessed on July 3, 2018.

<sup>12</sup> Moore. "Pacific City fisherman a rare breed." Tillamook Headlight Herald. July 13, 2011. Accessed at: [https://www.tillamookheadlightherald.com/news/pacific-city-fisherman-a-rare-breed/article\\_197f7fb8-ad9a-11e0-b9af-001cc4c03286.html](https://www.tillamookheadlightherald.com/news/pacific-city-fisherman-a-rare-breed/article_197f7fb8-ad9a-11e0-b9af-001cc4c03286.html)

## Processors and buyers

Today, six wholesale buyers exist within the Port: four main buying stations, which are located on the docks and have access to their own private cranes, and at least two mobile, independent fish companies that purchase and distribute product from their own boats as well as from other fishermen. These smaller buyers must utilize the services of other buying stations or the Port's public crane to offload product. Three of the buyers on the docks operate retail markets and also have live systems for holding crab, and one of these maintains a system for live fish which enables that business to fill a niche market on the north coast.

Although a small percentage of the catch flows into local markets, the bulk of the main species landed in Garibaldi, including Dungeness crab, bay clams, and albacore tuna, are shipped live or frozen to processing facilities in other ports or directly to out-of-state and into national and international markets.

Local restaurants and fish markets offering value-added seafood, such as filleted, canned, and smoked products, and fresh catch menus are another highlight of the current seafood supply chain in the county. These products and offerings are an example of commercial fishing dollars recirculating and adding value back into the local economy.

## Recreational fishing

The same natural resource that sustains local commercial fishing supports a robust recreational industry, which contributes to the local tourism economy and includes both private and guided fishing trips.

Charter vessels, fishing guides, and local marinas increase the value of the recreational fisheries by offering access to the water to individuals who do not own a boat. Marinas also offer a wide range of goods and services such as fuel, bait and tackle, fishing licenses, boat rentals, and food items including fresh seafood.

In 2019, business license data from the City of Garibaldi revealed that 32 charter boat and guide services operated within Garibaldi alone, and according to local dory fishermen, an estimated 11 dory boat charters currently operate out of Pacific City. The Oregon Department of Fish and Wildlife reported that the total number of guided ocean trips in 2017 was 30,058 (Garibaldi/Pacific City), and the total number of inland trips was 299,899 (Tillamook Area). Economic contributions per angler per day vary depending on fishery and ranged from \$35.84 to \$66.34 for private boat trips and \$133.69 to \$181.18 for guided and charter trips.<sup>13</sup> The Port of Garibaldi sold more than 12,000 day passes and 272 season passes in 2018 to use the public boat launch, primarily utilized by recreational fishers and fishing guides. Proceeds from launch fees are estimated to generate more than \$115,000 in revenue for the port in 2019. Additional revenue is generated from recreational moorage fees; 81% of Garibaldi's harbor is occupied by recreational slips.

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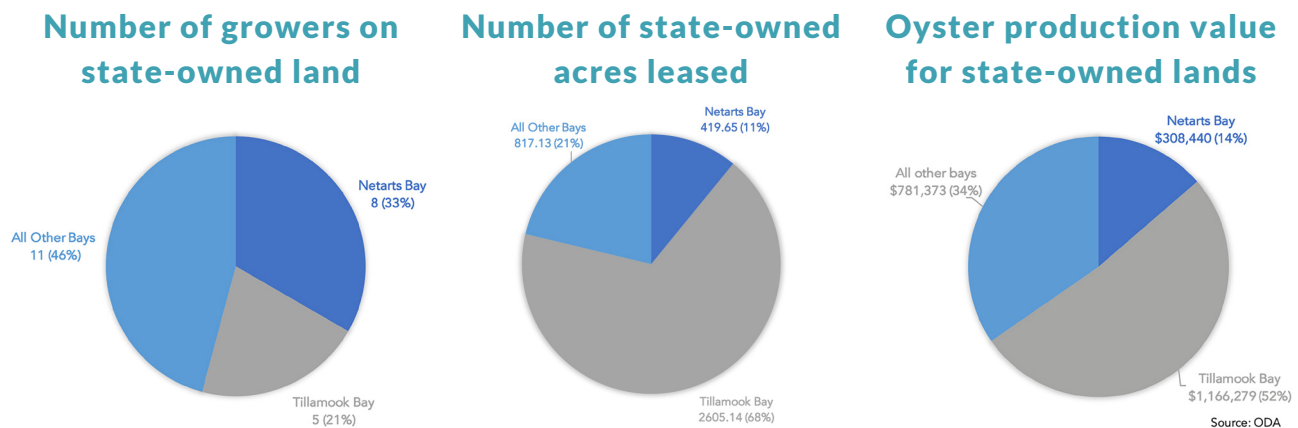
<sup>13</sup> *The Research Group, LLC. Oregon Commercial and Recreational Fishing Industry Economic Activity Coastwide and in Proximity to Marine Reserve Sites for Years 2016 and 2017. Prepared for Marine Reserve Program, Oregon Department of Fish and Wildlife. November 2018.*

## Aquaculture business

Although considered an agriculture industry and tracked separately from the commercial harvest of wild fish, aquaculture is another water-dependent economic engine for Tillamook County that contributes substantial value and dozens of direct jobs to the local community. Aquaculture operations share port infrastructure, dock space, seafood customer base, and harvest grounds with the commercial fleet, and utilize similar types of marine supply/repair services.

Tillamook County’s aquaculture industry is diverse; Oregon’s oldest and highest producing oyster farms and processing facility are located in Tillamook Bay, while Netarts Bay boasts several high-end, boutique growers as well as the largest shellfish hatchery in the nation. In addition, the county’s first seaweed culture business is slated to begin shoreside operations at the Port of Garibaldi in 2019.

Oysters grown in Tillamook County can be found in retail seafood markets and on restaurant menus throughout the region and are also exported widely across the country. Shellfish cultivation takes place in both estuaries and on private lands (owned by ports, counties or private businesses) as well as on state lands that are leased to growers specifically for this purpose. A total of 22 growers operate on 3,841.92 state-owned acres in Oregon. Tillamook county producers account for 67% of the state’s growers who use 79% of the state land in production; in 2018, local oyster producers harvested the equivalent of 42,000 gallons of shucked oysters, a raw product valued at a total of \$1.47 million which represents more than 65% of the state’s total production.<sup>14</sup>



## Marine supply and repair

Ocean-going vessels require constant maintenance and repair due to the corrosive nature of saltwater and the stress of heavy, prolonged use over the course of multiple fishing seasons. Fortunately, a local network of supply and repair businesses exist to aid both commercial and recreational fishers year-round, and the fishing industry helps provide steady, year-round work for employees of these companies.

<sup>14</sup> Oregon Department of Agriculture. “Annual Shellfish Production Report as of February 21, 2019.”

At least 20 local businesses directly support the commercial fishing industry through supplemental services. These include welding and metal fabrication businesses, boat builders, diesel repair mechanics, fuel providers, heating, cooling, and ventilation, and refrigeration companies, small boat engine service and repair shops, divers, and marine supply businesses.

## Employment

Skippers, deckhands, dockworkers, customer service and retail clerks, truck drivers, and marine service suppliers are all examples of commercial fishing related jobs.

For seafood workers as well as self-employed fishermen, work within the industry is often unpredictable and seasonal, affected by market demand as well as the seasonality of both tourism and commercial fishing. However, this is generally viewed and accepted as a part of the lifestyle. Most of those involved in the industry, particularly fishermen, have adapted to the up and down swings by pursuing multiple streams of income or, if possible, diversifying the portfolio of species they catch.

Regardless, the influence of the commercial fishing sector the state and local economy is strong. According to ODFW, “the generated household income from all Oregon commercial fisheries sources in 2017 is equivalent to about ten thousand (10,000) jobs in the statewide economy.” Total Tillamook County household earned income was over \$536 million, of which fishing income accounted for estimated \$11.4 million in 2017, equivalent to 253 fishing jobs. Tillamook accounted for just over 2% of the statewide total of earned income.<sup>15</sup>

It is apparent that the economic ripple effect of Tillamook County’s commercial fishing fleet is significant. In addition to boat repairs, gear and supplies, fishermen often purchase ice, food, fuel, and other business supplies locally. For fishermen who are residents of the county, the effect is much greater as their living expenses also trickle back into the community through housing, household expenses, local taxes, and more. In 2018, fishermen landed 2,171,554 lbs. of seafood worth \$5,215,602 in total landings revenue. When calculating multiplier effects using the IMPLAN<sup>16</sup> economic model, in Tillamook County, landings revenue contributed to a total of approximately \$6,952,648 in the local economy and can be attributed to creating nearly 80 full-time equivalent jobs. From 2003 to 2018, fishermen have cumulatively landed 36,690,438 lbs. of fish with \$66,301,718 (total in 2018 dollars), supporting an average of 63 full-time equivalent jobs in Tillamook County, year after year.

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<sup>15</sup> *The Research Group, LLC. Oregon Commercial and Recreational Fishing Industry Economic Activity Coastwide and in Proximity to Marine Reserve Sites for Years 2016 and 2017. Prepared for Marine Reserve Program, Oregon Department of Fish and Wildlife. November 2018.*

<sup>16</sup> *IMPLAN is an input-output economic model constructed through a compilation of public datasets from the Bureau of Labor Statistics, Bureau of Economic Analysis, and others. The IMPLAN model contains 440 separate industry sectors, inter-related through a series of matrices that determine each industry’s output, employment, labor and value added, and taxation of each industry as it is related to all of the others. The model can be defined at the national, state, county, or ZIP code levels.*



Photos by Kristen Penner

## LOCAL INITIATIVES AND SYNERGIES

### Seafood Value Chain Initiative

As described in the introduction of this report, an initiative guided by Rural Development Initiatives (RDI) was formed in 2014 to enhance and support a vibrant future for the local fishing economy.

Specifically, the goal of this initiative is to *increase the wealth and well-being of small commercial fishing boat owners, crews, and small to mid-sized seafood/seafood related businesses in the Garibaldi area*. This is a long-term systems-change process in and around the Port of Garibaldi to make the seafood sector more accessible to and function better for smaller scale fishermen, crew, and small to mid-sized seafood businesses.

Fundamentally, the role this initiative plays in the seafood sector is as a *catalyst and amplifier*,<sup>17</sup> and the work has developed in two phases. Phase 1, which began in 2014 with an initial exploration of the seafood sector, identified value chain gaps and opportunities, and in response to stakeholder needs and challenges, piloted new, on the ground programming such as “Fish Biz,” a small business development program tailored to the local fishing community. The initiative has also supported, connected, and coordinated seafood stakeholders with related tourism initiatives that highlight local

<sup>17</sup> *Catalyst: The increase in the quality and flow of information, the small grant stimulation of a local business, the conversations created through Fish Biz days, the connections of fishermen and businesses to support services, and Port policies and approaches to supporting and working with businesses are contributing to a shift in the way the seafood sector and its stakeholders operate. Businesses are “busting the old model” and taking greater control of their destiny. An empowered private sector is more confidently moving forward to fill value chain gaps (in infrastructure, for example) that the sector has struggled with for many years.*

*Amplifier: The centralized coordination efforts have also served to strengthen many other initiatives in the region. For example, seafood businesses are incorporated into the North Coast Food Trail; local food hub efforts are taking into consideration the needs of the seafood sector; USDA funding has supported a more detailed look at infrastructure needs and solutions; and the work has drawn the interest of organizations such as NADO and MIT.*

seafood, business accelerator programs such as Ecotrust’s Ag of the Middle Accelerator, as well as food system planning efforts<sup>18</sup> that are ongoing within the county. Two key reasons for the success of the initiative’s first phase are (1) the successful collaboration among partners with aligned interests (Port of Garibaldi, Col-Pac, Visit Tillamook Coast, Tillamook EDC and SBDC, Food Roots, and RDI), and (2) the funded role of a coordinator (housed with Ecotrust) to move the value chain development work forward.

Taking what was learned between 2014 and 2019, the initiative has developed a roadmap for Phase 2, which will guide the initiative forward into the future and focus more on localizing value chain coordination to build capacity within the community, and testing/scaling up solutions to industry challenges. Implementation of Phase 2 opportunities will be dependent upon securing additional funding to support this work. The Port of Garibaldi hosts the most current information, reports, and updates about the initiative on their website, which can be accessed at [www.portofgaribaldi.org](http://www.portofgaribaldi.org).

## **Local catch, local markets, and synergies with tourism**

Fresh seafood markets, fishermen selling “on the docks,” and restaurants featuring local catch are all examples of the industry responding to meet consumer demand for Oregon seafood. The fact that Garibaldi has three seafood markets is important and impressive, especially considering the size of the town and fleet. As the demand for locally caught seafood grows, so does the economic benefit for the local community.

### **Synergies with tourism**

Opportunities abound to capitalize on the momentum of local tourism marketing efforts and on building relationships with buyers in the nearby city of Portland in order to grow markets for local seafood. In recent years, Portland has become a mecca foodie destination, supporting a thriving craft food and beverage scene with hundreds of restaurants who make sourcing local ingredients a priority.

*There is hardly a more authentic experience than visiting a working community that supplies the food you love. Commercial fishing ports such as Garibaldi invoke the imaginations of landlocked travelers across our state, nation, and the world.*

*Modern travelers are demanding more genuine and meaningful experiences, often wanting to contribute economically or otherwise to the places they visit. Investments in the marketing of local seafood can tell the story of the role Garibaldi plays in feeding our nation and supporting local families to help ensure a viable place for this commercial fishing well into the future.*

– Oregon Coast Visitors Association

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<sup>18</sup> A Business Oregon grant received by Visit Tillamook Coast funded the development of a North Coast Oregon Food Hub Feasibility Assessment, conducted by Food Roots in March of 2019.

## State of tourism in Oregon

The call to action “a better life for all Oregonians through strong, sustainable local communities,” is not necessarily what one would expect to see as the vision statement for a state tourism agency. However, this innovative approach Oregon has taken to support its booming travel industry is setting a new standard nationwide.

*We inspire travel that drives community enhancement and economic development. Through innovation and partnerships, we share the stories of Oregon’s people and places, deliver world-class experiences, strengthen the industry, ensure all travelers feel welcome and preserve Oregon’s way of life and its natural places.*

– Travel Oregon (Mission Statement)

The Oregon Tourism Commission, DBA Travel Oregon, is a semi-independent agency created by the Oregon Legislature in 2003 to enhance Oregonians’ quality of life by strengthening economic impacts of the state’s \$12.3 billion tourism industry. Travel Oregon is funded by a 1.8% statewide transient lodging tax (TLT) and leverages this revenue to invest in local communities across Oregon through regional matching grant programs, industry outreach, research and training, and destination marketing.<sup>19</sup>

As a credit to this statewide vision and investment, the Oregon tourism economy has been expanding with increased visitation and spending for over nine consecutive years.<sup>20</sup>

## Recent local investments

Local tourism agencies such as Visit Tillamook Coast and Oregon Coast Visitors Association, in partnership with Travel Oregon, are invested in raising the profile of the region’s fishing fleet and seafood industry through communications, media, and events that tell the story of the seafood and people behind it.<sup>21</sup> Their intention is to build stronger connections between the industry and visitors while building local pride in the industry.<sup>22</sup> Examples of these efforts include:

**Shop at the Docks, Garibaldi**, is organized by Oregon Sea Grant and local community partners. The popular guided tours of the commercial fishing docks educate about Oregon’s fisheries and capitalize on consumers’ increasing desire to know who and where their food comes from. These types of interactions have exhibited a high likelihood of creating lifelong customers for Oregon seafood.

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<sup>19</sup> <https://industry.traveloregon.com>

<sup>20</sup> Dean Runyan Associates. “Oregon Travel Impacts, 1992 - 2018p.” Prepared for the Oregon Tourism Commission. March 2019.

<sup>21</sup> Tillamook County’s tourism industry exhibits growth trends in keeping with those of the state. With an influx of local TLT revenue to support tourism businesses through destination marketing strategies, the local industry has grown considerably and attracted positive media attention. In 2018, tourism generated \$240.1 million in visitor spending within Tillamook County and \$3.98 million in TLT revenue. (Visit Tillamook Coast. “Annual Tourism Benchmark Report for Fiscal Year 2018-19.” Accessed at: <https://tillamookcoast.com/industry/>)

<sup>22</sup> Ecotrust. “Garibaldi Seafood Value Chain Assessment.” June 2019.

The **North Coast Food Trail** highlights 75 local food producers including local fishing businesses and has garnered over \$2.1 million in earned media (including an Editor’s Choice Travel Award by Sunset Magazine) since its launch in July 2018. It was also recognized by Travel Oregon as a “Best Niche Tourism Program” award at the 2019 Oregon Governor’s Conference on Tourism.

Created to showcase the food trail, **Crave the Coast** is an annual event that takes place in Garibaldi in late September. This culinary festival, which celebrates the bounty of the coast and craft producers, attracted 794 attendees in its first year.

The **Tillamook Bay Heritage Route**, a cultural spur along the Oregon Coast Trail, was created to use local outdoor recreation opportunities as a way to promote elements of the local culture and encourage overnight stays to explore the region. The route showcases Garibaldi’s fishing heritage through interpretive signage at the Port of Garibaldi and special events in locations along the trail.

These synergies point to a bright potential for the growth of local markets and building a lasting consumer appreciation for locally caught seafood, as well as the men and women who catch it.



## CONCLUSION

Historically supporting fishing, timber, and tourism trades, Tillamook County continues to sustain a vibrant fishing community and a vital seaport at the Port of Garibaldi that offers opportunities for local Oregon industries to grow and thrive. The working waterfronts of the area provide essential jobs, a platform for modern aquaculture and commercial fishing operations, and abundant outdoor recreation opportunities. For many local residents, fishing is so much more than a job or recreational pursuit; it is an active, meaningful way of life that provides a deep connection to Oregon's waters and natural environment, and which contributes many layers of economic and social impact for the surrounding communities.

In 2018, the commercial fishermen of Tillamook County landed 2,171,554 lbs of seafood worth \$5,215,602 in landings revenue, creating nearly 80 full-time equivalent jobs in Tillamook County. From 2003 to 2018, fishermen have cumulatively landed 36,690,438 lbs of fish worth \$66,301,718 (total in 2018 dollars) in landings revenue, supporting an average of 63 full-time equivalent jobs year after year during this time span. Following on the heels of a very successful 2018, 2019 looks to be shaping up as another good year, with landings, EVV, and price per pound for most species trending in line with or just below the numbers seen the previous year.

Collaborations between fishermen, fishing industry, academia, NGOs, port districts, and local, state, and federal agencies are a part of what keeps this fishing community vibrant and adaptive. The mostly "day boat" character of Tillamook County's fishing fleets is unique in nature and composition. Each of these active commercial boats are independent small businesses providing high quality seafood local, regional, and national consumers, while contributing substantially to the local economy.

Tillamook County's fishermen and fishing community face many dynamic, complex challenges associated with one of the world's last commercially harvested wild food sources. A changing climate, fluctuating fish populations, adaptive and ever-changing management regulations, product seasonality, aging port infrastructure, and limited entry fisheries with increasingly expensive permits and quota are just some of the common issues today's fishermen and fishing industry are facing.

In spite of this, a compelling case for continued investment in this industry is clear to both those directly and indirectly involved in it. This persistent and widespread recognition rests not only on the direct monetary return on investment derived from additional investment, but also upon the immeasurable intrinsic cultural value of local lifestyle and character. The tenacity and adaptability of entrepreneurial operators in the aquaculture and commercial fishing sectors have inspired support from tourism, state agencies, NGOs, and other partners. These emerging partnerships are contributing to the development of a resilient community that is able to navigate modern-day barrier and provide opportunities for fishermen and the community to continue to live off the sea. The continued and growing momentum of these partnerships is of the utmost importance to maximize the value of investments made within the local fishing industry, multiply economic development successes, and contribute to the cultural preservation of working waterfront communities.