



**NOAA
FISHERIES**

In April 2020, NOAA Fisheries prepared its first national report on the regional impacts of COVID-19 on the commercial, recreational and aquaculture sectors. This report updates that initial assessment, capturing economic changes experienced by the fishing industry as the country began its phased reopening along with infusion of Federal funding through the CARES Act. NOAA Fisheries will continue to use this information to identify economic hardship where it exists and identify pathways for enhancing the resilience of the U.S. seafood and fisheries industries.

West Coast Snapshot, March-July 2020



West Coast Fisheries Impacts from COVID-19

Commercial Fisheries Landings Trends and Impacts¹ through July 2020

In 2019, approximately 3,300 non-tribal commercial fishing vessels operated in the West Coast fisheries and landed products valued at \$526 million (including aquaculture shellfish, where available). The top commercial fisheries by landings revenue in 2019 were crab, groundfish (including whiting), and shrimp. Many of the participants in West Coast commercial fisheries are active year-round, shifting from one fishery to another as seasons open and close. Broadly speaking, West Coast fishermen were initially affected by the cessation of exports caused by the closure of Asian seafood markets beginning in January 2020. Losses were compounded by the sharp decrease in demand for seafood, both domestically and globally, as countries imposed social distancing restrictions that closed restaurants where the majority of seafood is consumed. Some in the industry are concerned about whether markets will fully recover.

To assess potential effects of the pandemic on West Coast fisheries, we calculate the five-year median of landings (2015-2019) for each species group and region to provide a baseline comparison to 2020 landings. A five-year baseline is chosen because it corresponds to the time-frame used for fishery disaster declarations. Data for these comparisons are available from January through (and including) July 2020. Year-to-date comparisons include all landings from January through July. Comparisons restricted to March through July are also provided to emphasize impacts likely related to COVID-19, since the period coincides with the introduction of stay-at-home orders and restaurant closures on the West Coast. Ex-vessel revenue is adjusted for inflation. Ex-vessel revenue is adjusted for inflation. In order to protect confidentiality, data with too few observations are suppressed in the figures below.

Year-to-date, total West Coast shoreside commercial ex-vessel revenue was 9% lower than the baseline period. From March-July 2020, total ex-vessel revenue was 31% lower than the 2015-2019 baseline. At the start of the year, coast-wide ex-vessel revenue was higher than the baseline period, largely due to Dungeness crab landings, but fell below the baseline starting in March and continuing through July, which coincides with the start of stay-at-home orders and restaurant closures on the West Coast. Figure 1 illustrates ex-vessel revenue by species group generated during the months of March through July each year between 2015 and 2020. Total commercial fishing revenue in 2020 during these months was lower than any of the previous five years. The same is true of specific

fisheries including tuna, Individual Fishing Quota (IFQ) trawl, and fixed gear non-whiting groundfish. Revenue from market squid has been higher in 2020 thus far, and is reported to be experiencing an abundant season, particularly relative to last year.

Comparisons of 2020 landings to the baseline period vary across states. In California, the fisheries that contributed most to year-to-date ex-vessel revenue were crab, market squid, and salmon. Total ex-vessel revenue was 2% lower than the baseline period for the year-to-date and 16% lower from March through July. In Oregon, the fisheries that contributed most to year-to-date ex-vessel revenue were crab, shrimp, and shoreside Pacific whiting. Total ex-vessel revenue was 2% higher than the baseline period, and 21% lower from March through July. In Washington, the fisheries that contributed most to year-to-date ex-vessel revenue were crab and shrimp. Total ex-vessel revenue in Washington was 24% lower than the baseline period, and 40% lower from March through July.

Total Coast-Wide Commercial Ex-Vessel Revenue (March-July) by Species Group, 2015-2020

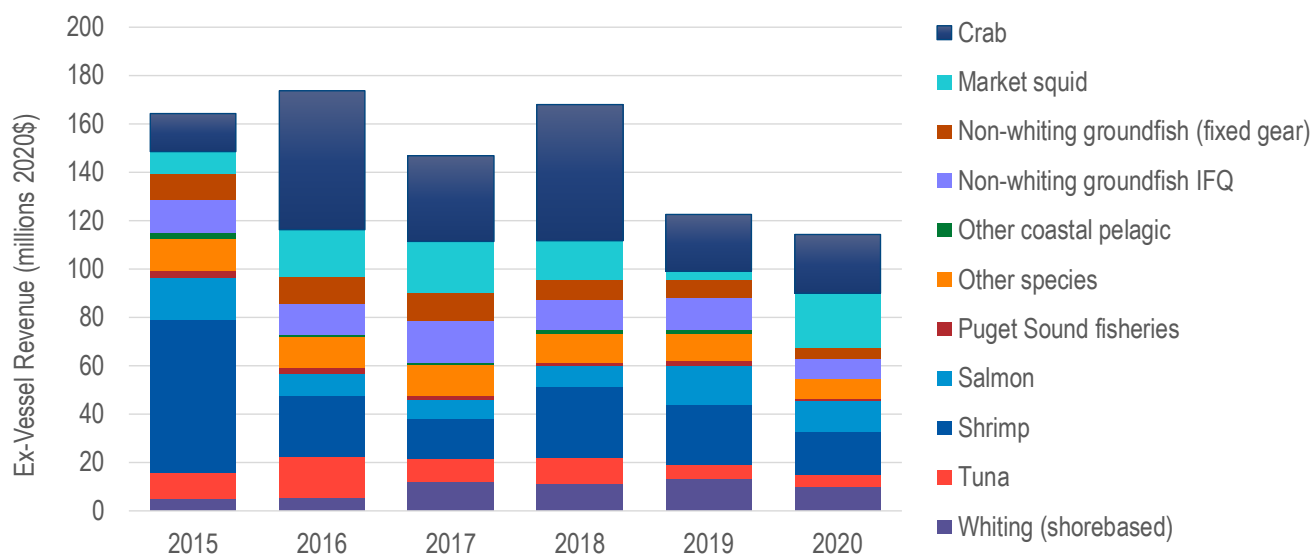


Figure 1. Total coast-wide commercial ex-vessel revenue generated during the months of March through July each year between 2015 and 2020 by species group.

NON-WHITING GROUND FISH FISHERY

From 2015-2019, the non-whiting groundfish fisheries contributed to about 11% of coast-wide shoreside ex-vessel revenue and approximately 970 commercial fishing vessels participated annually. Vessels target multiple species, including sablefish (also called black cod), rockfish, petrale sole, and Dover sole, and primarily use trawl nets and fixed gear (e.g., longlines, pots). Year-to-date, 2020 ex-vessel revenue was 44% lower than the baseline (2015-2019 median), and landed weight was 21% lower.

The non-whiting IFQ bottom trawl fishery operates year-round and accounts for approximately half of the non-whiting groundfish fishery ex-vessel revenue in 2020 thus far. Year-to-date, this fishery has experienced a 51% decrease in ex-vessel revenue and a 31% decrease in landed volume relative to the 5-year median. The

Coast-Wide Non-Whiting Groundfish Ex-Vessel Revenue

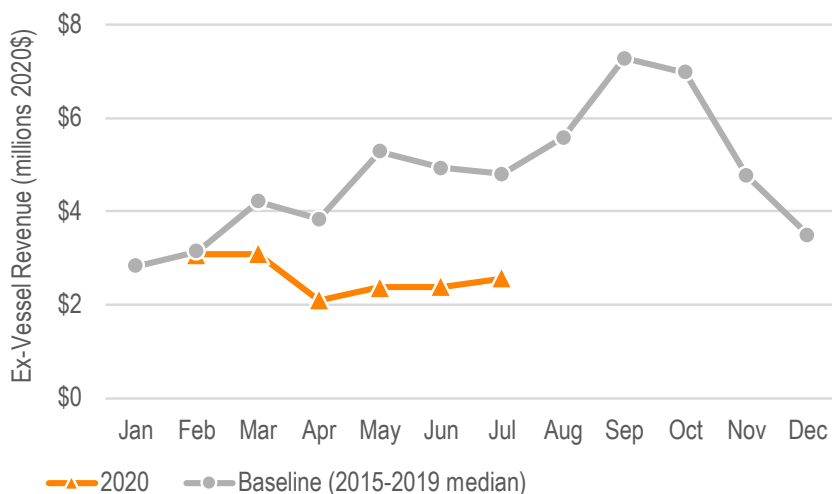


Figure 2. Coast-wide non-whiting groundfish ex-vessel revenue (millions of 2020 dollars).

fixed gear sablefish fishery is primarily executed between April and October. From March-July, ex-vessel revenue was 65% lower and volume landed was 50% lower than the 5-year median.

The non-whiting groundfish fisheries are reportedly experiencing challenging market situations for select species. For example, sablefish, a high-valued species typically exported or sold to restaurants, has been impacted by both the decline in export in Asian markets as well as the decline in domestic demand due to restaurant closures. The weighted average sablefish ex-vessel price between March and July 2020 was \$1.22 per pound, down from \$1.80 per pound in 2019.

SALMON FISHERY

The commercial, ocean troll salmon fishery on the West Coast typically contributes 3-4 percent of fisheries revenue with over 600 participating vessels. Participants target multiple, mixed stocks and the season typically runs from April through September with rotating open periods throughout. Year-to-date, total ex-vessel revenue and landed weight in the salmon fishery were higher than the 5-year median (2015-2019) by 39% and 76% respectively. These increases over the baseline period are due to conditions in California, which experienced average to above-average landings and ex-vessel prices. By contrast, landings were down considerably in Oregon and Washington.

Salmon volume and revenue in California from May, the first month the fishery was open, to July were substantially higher than the 5-year (2015-2019) median. Landed weight was 249% higher and revenue was 173% higher than the median value. This is likely because of a low baseline value due to poor stock conditions in previous years, average to above-average ex-vessel prices this year, and reasonably good stock conditions this year. Salmon fishermen in California report average to above-average prices this summer (approximately \$9 per pound). Demand for salmon has been surprisingly strong, as buyers have made up some of the lost revenue from sales to restaurants by increasing sales to grocery stores. Much higher sales to direct-to-consumer channels, though still a relatively small proportion of demand, and sales to markets in the Midwest and East Coast have helped support prices.

In Oregon, March-July ex-vessel revenue was 59% lower and volume landed was 58% lower than the 5-year median. Demand for Oregon salmon has been hurt by sharply reduced restaurant demand, which typically accounts for most of the market. Prices for salmon in Oregon have remained at or near historical levels, however, supported by increased direct-to-market sales, some increased demand from supermarkets, and very low landings. In Washington, March-July, ex-vessel revenue was 82% lower and volume landed was 80% lower than the 5-year median.

Portions of unused early season catch limits have been rolled over into late summer seasons in ocean troll fisheries in Washington and Oregon. The salmon fishery in Washington and northern Oregon in May and June caught only 15% of its early season allowable catch (2,141 out of 13,820 fish north of Cape Falcon; all of the unused portion was re-allocated to the July-September season). Late season reports indicate that it is unlikely that harvesters will take all of the quota. The southern Oregon ocean troll fishery harvested 24% of the June quota (165 out of 700 Chinook salmon), with a portion of the uncaught quota re-allocated to late summer (330 out of 535 uncaught fish). The full portion was not rolled over because the July and August fishery has a relatively high impact on the Klamath River fall-run Chinook stock, which is in poor condition.

SHRIMP FISHERY

From 2015-2019, the shrimp fisheries contributed to about 9% of coast-wide shoreside ex-vessel revenue and around 180 commercial fishing vessels participated annually. Shrimp revenue is largely comprised of the pink shrimp fishery, which runs from April through October, as well as spot prawns. Year-to-date, 2020 ex-vessel revenue was 28% lower than the baseline period, while landed weight was similar, indicating that the price per pound decreased. The weighted average pink shrimp ex-vessel price in 2020 thus far was \$0.50 per pound, down from \$0.72 per pound in 2019, and the spot prawn price in 2020 was \$12.36 per pound, down from \$12.90 per pound in 2019.

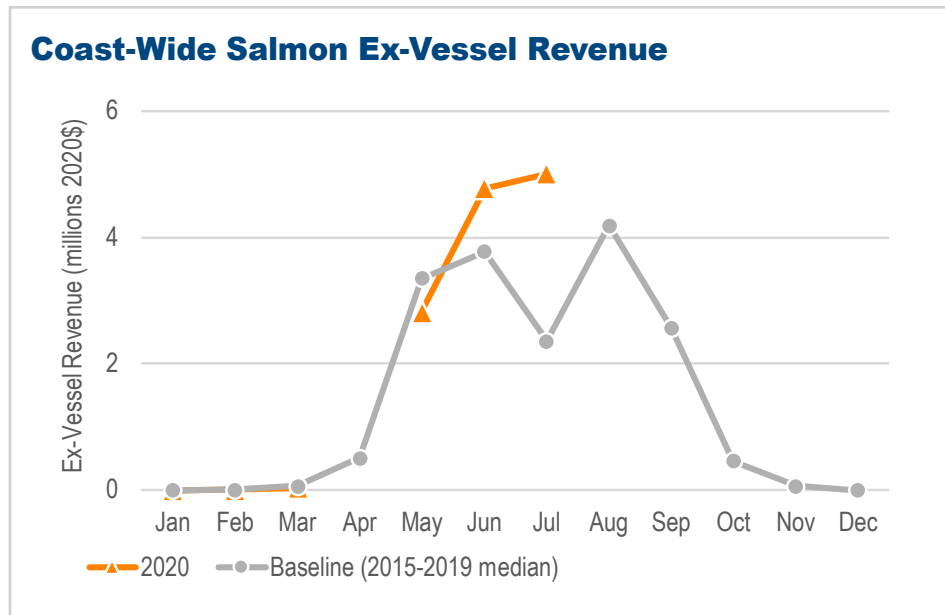


Figure 3. Coast-wide salmon ex-vessel revenue (millions of 2020 dollars).

Shrimp landings in 2020 thus far for Oregon and Washington were primarily composed of pink shrimp. In Oregon, landed weight was 5% lower and ex-vessel revenue was 38% lower than the baseline period. In Washington, landed weight was 23% higher than the baseline, while ex-vessel revenue was 6% lower. In California, ex-vessel revenue from shrimp landings since the start of the year was largely composed of prawn. Year-to-date, landed weight was 58% lower and ex-vessel revenue was 25% lower than the baseline. From March-July, landed weight was 63% lower and ex-vessel revenue was 30% lower. Industry feedback indicated that demand from restaurants for live products declined for shrimp in particular, due to their perishability and poor transportability once cooked, and they were endeavoring to expand direct-to-consumer sales.

WHITING FISHERY

Data that are available indicate that whiting harvest volume is higher than the baseline period but revenues are lower due to lower prices. The at-sea and shoreside Pacific whiting seasons open on May 15 each year, and whiting vessels in the at-sea sector typically depart the fishery to fish for Pollock in Alaska from July through September. Thus, the data available only reflect the first two and a half months of the at-sea season. Through July of 2020, volume was 34% higher than the 5-year median in the at-sea catcher-processor sector and 3% lower in the at-sea mothership sector. In the shoreside sector, landed weight was 5% higher than the 5-year median while ex-vessel revenue was 11% lower, indicating a lower average ex-vessel price. From May through July, ex-vessel prices in the shoreside sector were 25% lower than the baseline.

Vessels active in the at-sea whiting fishery have experienced a number of publicized outbreaks, which has likely increased the cost of operating in the fishery. Three Pacific whiting catcher-processor vessels (American Dynasty, American Triumph, and Northern Jaeger) experienced outbreaks of COVID-19 onboard, which required a 14-day quarantine before resuming fishing. One mothership processor decided to limit their activities to Alaska to mitigate the risk associated with COVID-19, which

Coast-Wide Shrimp Ex-Vessel Revenue

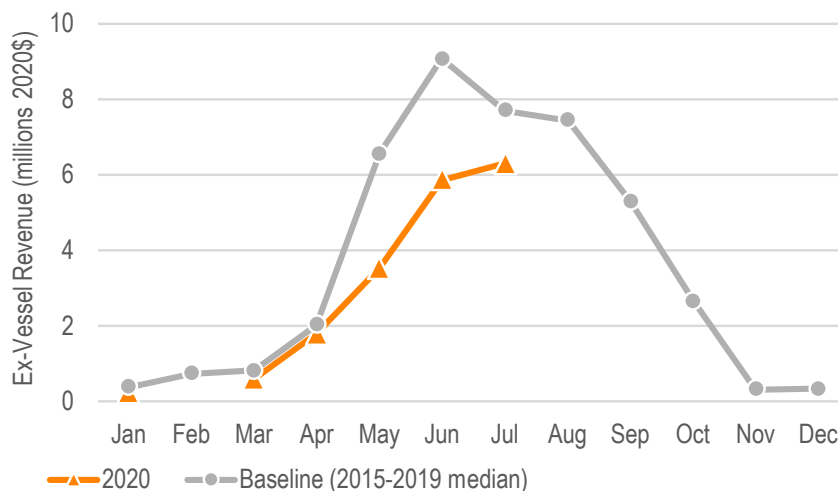
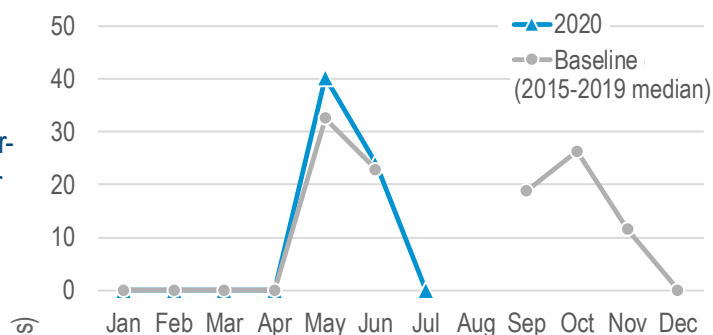
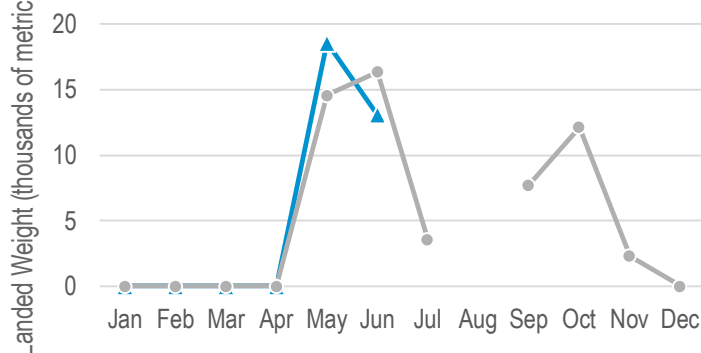


Figure 4. Coast-wide shrimp ex-vessel revenue (millions of 2020 dollars).

Pacific Whiting Volume landed in catcher-processor sector



Pacific Whiting Volume landed in mothership sector



Pacific Whiting Volume landed in shoreside sector

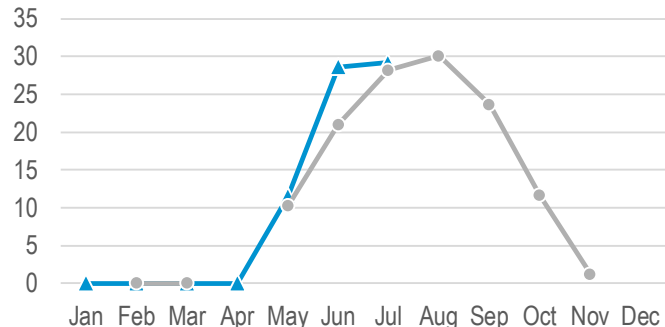


Figure 5. Total volume landed (metric tons) in at-sea and shoreside Pacific whiting fisheries.

left some catcher vessels without a processing platform. To provide operational flexibility, NOAA Fisheries issued an emergency rule to allow eligible mothership and catcher-processor vessels to operate as either type of processing platform during the 2020 Pacific whiting season.²

CRAB FISHERY

The Dungeness crab fishery, which comprises the majority of the West Coast crab landings revenue, was well into the 2019/2020 fishing season when COVID-19 began to affect markets for crab. Dungeness crab fisheries generally open in early December with most landings (approximately 80% of landed weight in the baseline) occurring between December and February. While much of the fishing season was over, there is some indication in the landings statistics that markets for crab experienced some weakness near the end of the fishing season. Industry feedback indicated that demand from Asian nations that import crab was down early in the year, and the high-value live crab market was effectively cancelled for the fishing season. This is exhibited in U.S. trade data, which indicates that all crab exports are down 25% from the baseline average. Trade data indicate that falling prices near the end of the fishing season potentially exhibit some market weakness: January-February prices were 8% higher than the baseline period, but March-July was 17% lower.

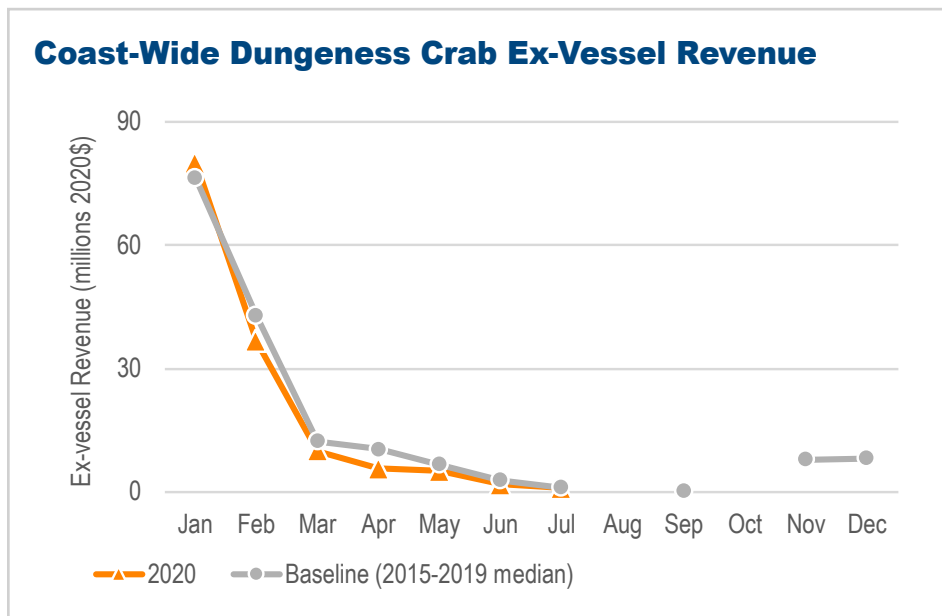


Figure 6. Coast-wide Dungeness crab ex-vessel revenue (millions of 2020 dollars).

Region-wide, year-to-date ex-vessel revenue and landed weight in the Dungeness crab fisheries were lower than the 5-year median (2015-2019), and declines from the March-July time frame were greater, particularly for Washington and California.³ Region-wide year-to-date revenue was down 4% and weight was down 12%. From March-July, ex-vessel revenue was 32% lower and volume landed was 26% lower than the 5-year median. In Oregon year-to-date, Dungeness crab total volume and ex-vessel revenue were slightly higher than the 5-year median (2015-2019), by 4% and 6% respectively; and from March-July, ex-vessel revenue was similar to the 5-year median and volume landed was 9% higher. In California year-to-date, Dungeness crab total volume and ex-vessel revenue were 18% and 15% lower than the 5-year median; and from March-July, ex-vessel revenue was 59% lower and landed weight was 52% lower. In Washington year-to-date, Dungeness crab total volume and ex-vessel revenue were both 16% lower than the 5-year median (2015-2019); and from March-July, ex-vessel revenue was 29% lower and landed weight was 22% lower.

Concerns have been expressed that both quantity demanded and prices of crab will be depressed in the upcoming crab season. Many crab buyers typically freeze 4-5 months of inventory to sell it over the summer months, when the fishery is closed. Restaurant closures have nearly eliminated retail sales this summer and as a result, buyers report a large inventory of frozen crab still on hand.

COASTAL PELAGIC FISHERIES

The Coastal Pelagic Species (CPS) fishery targets the following: anchovy, market squid, sardine, and other coastal pelagics (which include mackerel). During the 2015 through 2018 period, over 94% of total CPS landings and revenues occurred in California. The share of revenues from the Pacific Northwest were higher earlier in the decade but declined due to the closure of the West Coast major directed commercial Pacific sardine fishery in 2015 (over 70% of Pacific sardine revenues occurred in the Pacific Northwest in the 2009-2015 period). The primary directed fishery for Pacific sardine has been closed since 2015. Beginning in 2018, there has been a major increase in market squid landings and revenues in the state of Oregon.

Coast-wide, the year-to-date total ex-vessel revenue and landed weight in coastal pelagic fisheries were higher than the 5-year median (2015-2019) by 36% and 5% respectively. From March-July, ex-vessel revenue was 28% higher and volume landed was 17% lower than the 5-year median. In California year-to-date, total ex-vessel revenue in coastal pelagic fisheries was higher than the 5-year median (2015-2019) by 20%, while landed weight was similar. From March-July, ex-vessel revenue was 20% higher and volume landed was 27% lower than the 5-year median. In Oregon, the year-to-date total ex-vessel revenue and landed weight in coastal pelagic fisheries were higher than the 5-year median (2015-2019) by 224% and 54% respectively.

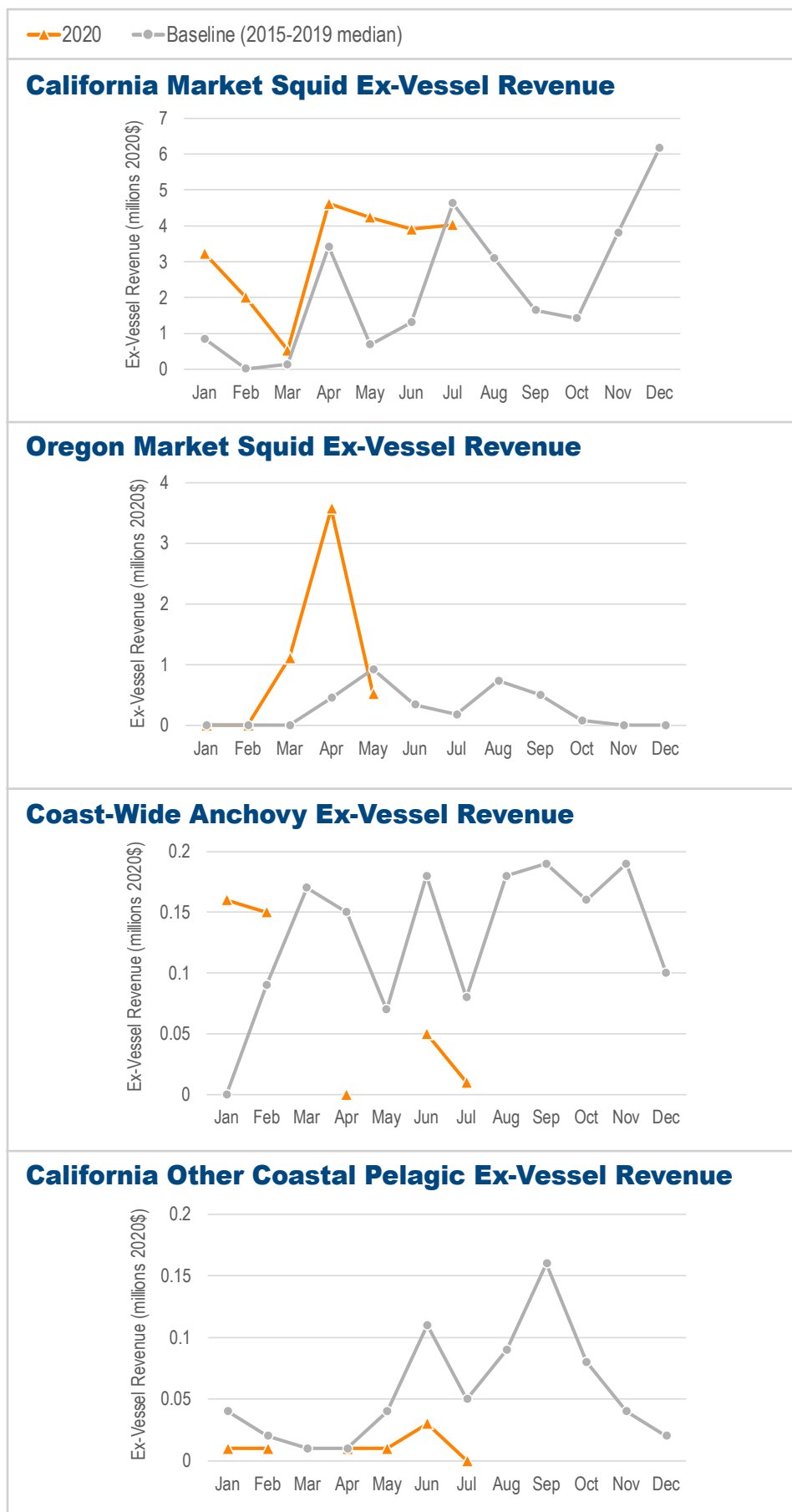


Figure 7. Coastal Pelagic Species ex-vessel revenue by type and location (millions of 2020 dollars).

For market squid, the year-to-date total ex-vessel revenue and landed weight were higher than the 5-year median (2015-2019) by 41% and 25% respectively. From March-July, ex-vessel revenue was 39% higher and volume landed was 13% higher than the 5-year median. In California, the year-to-date total ex-vessel revenue and landed weight in the market squid fisheries were higher than the 5-year median (2015-2019) by 22% and 9% respectively. From March-July, ex-vessel revenue was 32% higher and volume landed was 6% lower than the 5-year median. In Oregon, the year-to-date total ex-vessel revenue and landed weight in the market squid fisheries were higher than the 5-year median (2015-2019) by 228% and 201% respectively.

For anchovy, the year-to-date total ex-vessel revenue and landed weight were lower than the 5-year median (2015-2019) by 56% and 42% respectively. From March-July, ex-vessel revenue was 80% lower and volume landed was 71% lower than the 5-year median. A majority of the anchovy landings occurred in California.

Landing revenues for Pacific and other mackerel fisheries are captured in the other coastal pelagic fishery category. As can be seen by Figure 7, landing revenues for this species grouping are significantly down relative to the prior 5-year median.

HIGHLY MIGRATORY SPECIES FISHERIES

Year-to-date, total ex-vessel revenue and landed weight in the tuna fisheries were lower than the 5-year median (2015-2019) by 52% and 55%, respectively. From March-July, ex-vessel revenue was 56% lower and volume landed was 57% lower than the 5-year median. In Oregon, year-to-date, total ex-vessel revenue and landed weight in the tuna fisheries were lower than the 5-year median (2015-2019) by 77% and 80%, respectively. In California, year-to-date, total ex-vessel revenue and landed weight in the tuna fisheries were lower than the 5-year median (2015-2019) by 8% and 33%, respectively. From March-July, ex-vessel revenue was 16% lower and volume landed was 41% lower than the 5-year median. For Washington, year-to-date, total ex-vessel revenue and landed weight in the tuna fisheries were lower than the 5-year median (2015-2019) by 51% and 39%, respectively.

Preliminary data suggest that August revenues for 2020 West Coast tuna are approaching the 5-year median (Figure 8). Anecdotally, these data are thought to be 85-90% complete, suggesting August 2020 revenues production may be comparable to levels of recent years.

Commercial albacore fishing industry members have reported extra costs due to protective measures such as grocery delivery services to vessels coming into port, to avoid requiring crew to leave the boat and face risk of contracting or spreading COVID-19. It is not clear to what degree these added costs are reducing profitability.

U.S. tropical tuna purse seine vessels in both the Eastern and the Western and Central Pacific Oceans face declining catch. Crew are not allowed to leave vessels to fly home, there are no observers, and drydocking is not possible. Vessel operators face increasing difficulties in obtaining parts and supplies. Landings prices are down, and profits are adversely impacted.

Coast-Wide Tuna Ex-Vessel Revenue

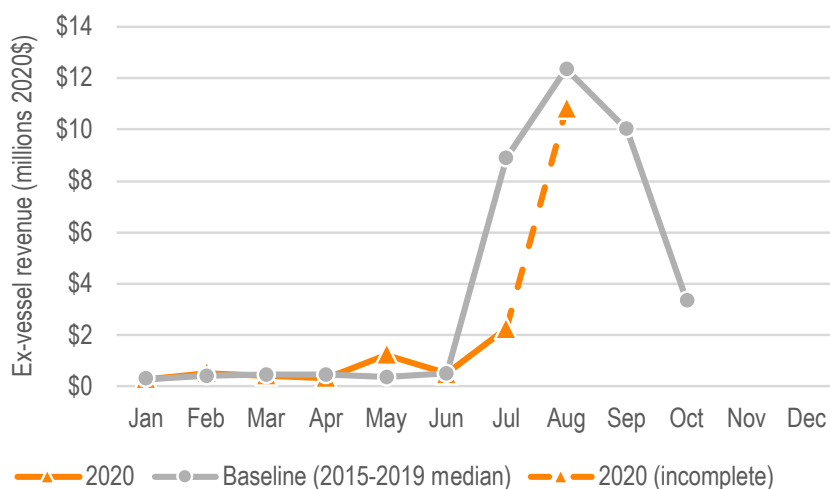


Figure 8. Coast-wide tuna ex-vessel revenue (millions of 2020 dollars). Dotted line indicates incomplete data.

Seafood Processors

Approximately 1,000 buyers purchased seafood from harvesters and producers in the West Coast Region in 2019. In 2020, these processors have faced increased costs and reduced demand coastwide, and there are compounding effects of wildfires and a water supply emergency in Newport, OR that halted processing operations. There have been a number of reported COVID-19 outbreaks at facilities. News sources indicate that some processing plants temporarily closed due to outbreaks at facilities in locations including Astoria/Warrenton, OR and Newport, OR. Closures reportedly ranged from several days to two weeks. In the last few months, there were several reports of employees testing positive for the virus; however, facilities did not close.

On the demand side, interviews with seafood processors conducted early during the COVID-19 outbreak indicate that the fresh seafood market was greatly affected by restaurant closures. There are reports that industry (at various levels of the supply chain) shifted towards other markets, including direct-to-consumer and community-supported fishery (CSF) sales. While some inroads have been made, there is still a substantial learning curve to make it successful. Interviews with large tuna processing companies in September indicate consumer retail demand for shelf-stable products remains strong but institutional demand for frozen products remains adversely impacted. Interviews with highly migratory seafood processors indicate that retail is strong but wholesale is moving smaller volumes than normal, but with a slight increase as restaurants reopen or expand operations. General uncertainty continues to negatively impact wholesale prices.

Processors are facing cost increases on several fronts. In addition to the cost of closures due to outbreaks, state agencies reportedly have been working on changes to infectious disease protocols, which, while not in place yet, has involved effort to ensure compliance. There have been changes to requirements for workers on processing lines. Distancing, installation of plexiglass shields between positions, and hiring on-site medical personnel are actions that some processors have taken.

Cold storage shortage is an issue that will likely continue to affect prices in the months ahead. Restaurant closures have pushed much seafood into cold storage, and most available freezer space is full. The U.S. Department of Agriculture (USDA) has tried to work with processors to find other outlets for currently frozen products in institutions such as prisons and schools. However, that program has been largely unsuccessful on the West Coast as the products in cold storage tend to be higher priced, luxury products such as Dungeness crab.

Recreational Fishing — For-Hire Sector

All modes of recreational fishing are now open after closures. In most jurisdictions, the relaxation of restrictions started with the opening of boat launches for private boats, followed by opening of public beaches, then for-hire operations. The majority of for-hire operations began operating as local guidelines allowed — with many operations starting in mid to late-May. Vessel launch and trip booking websites outline protocols in place for social distancing. A small number of charter vessels located on Indian reservations remain shut down as the reservations remain closed to the public. Vessels are carrying fewer passengers per trip, with some operations increasing ticket prices to make up for fewer passengers.

Retail tackle shops have reopened after the lifting of state and local mandated closures to non-essential business. Closures and openings varied significantly by jurisdiction. Some fishing tackle shops with online infrastructure were able to continue selling and shipping goods; others were able to take orders over the phone for pick up by appointment. Shops without an online presence were likely more impacted by a longer period of closure and/or no sales.

Many fishing trade shows were cancelled, or postponed only to be later cancelled, due to limits on public gatherings, closure of host locations, and logistics needed to change locations and dates of such large events. At least one fishing show for 2021 has already been cancelled. Fishing tournaments were also cancelled due to stay at home orders. As restrictions have been lifted, some tournaments have resumed.

For-hire effort update from RecFIN data

Across the West Coast, for-hire angler trips were considerably lower in 2020 relative to the 5-year median. However, in recent months, effort has returned to levels near the historical median. The availability of current data is a limiting factor in making a comparison in California due to COVID-related closure of the sampling program. For-hire effort data are available from January through July in both Washington and Oregon. In California, estimating effort relies on sampling that was not done from April through June, due to COVID-19 restrictions, so these data might remain missing. Based on all months for which RecFIN data were available for 2020, year-to-date reductions for the for-hire recreational fishing sector were as follows: 62% for Washington, 32% for Oregon, and 32% for California. Focusing on March through July only, reductions for for-hire trips were as follows: 62% for Washington, 31% for Oregon, and 36% for California.

Washington For-Hire Trips

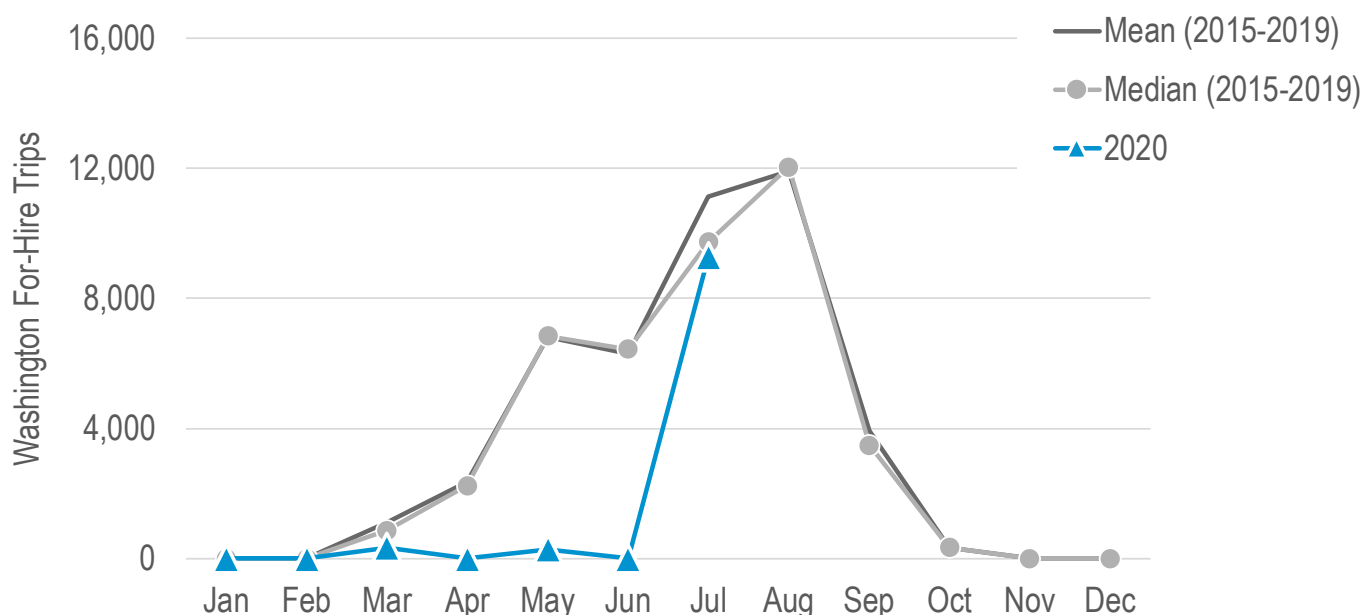


Figure 9. For-hire trips in Washington.

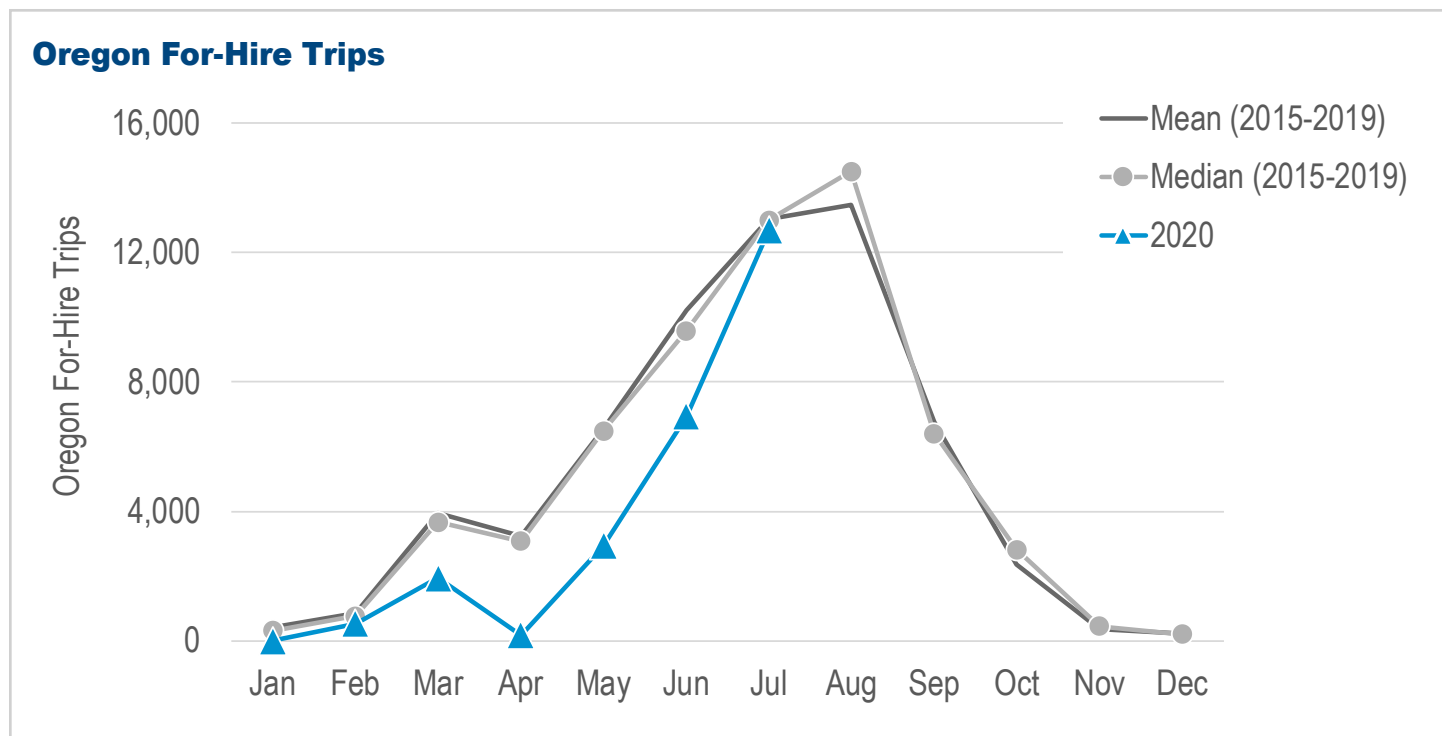
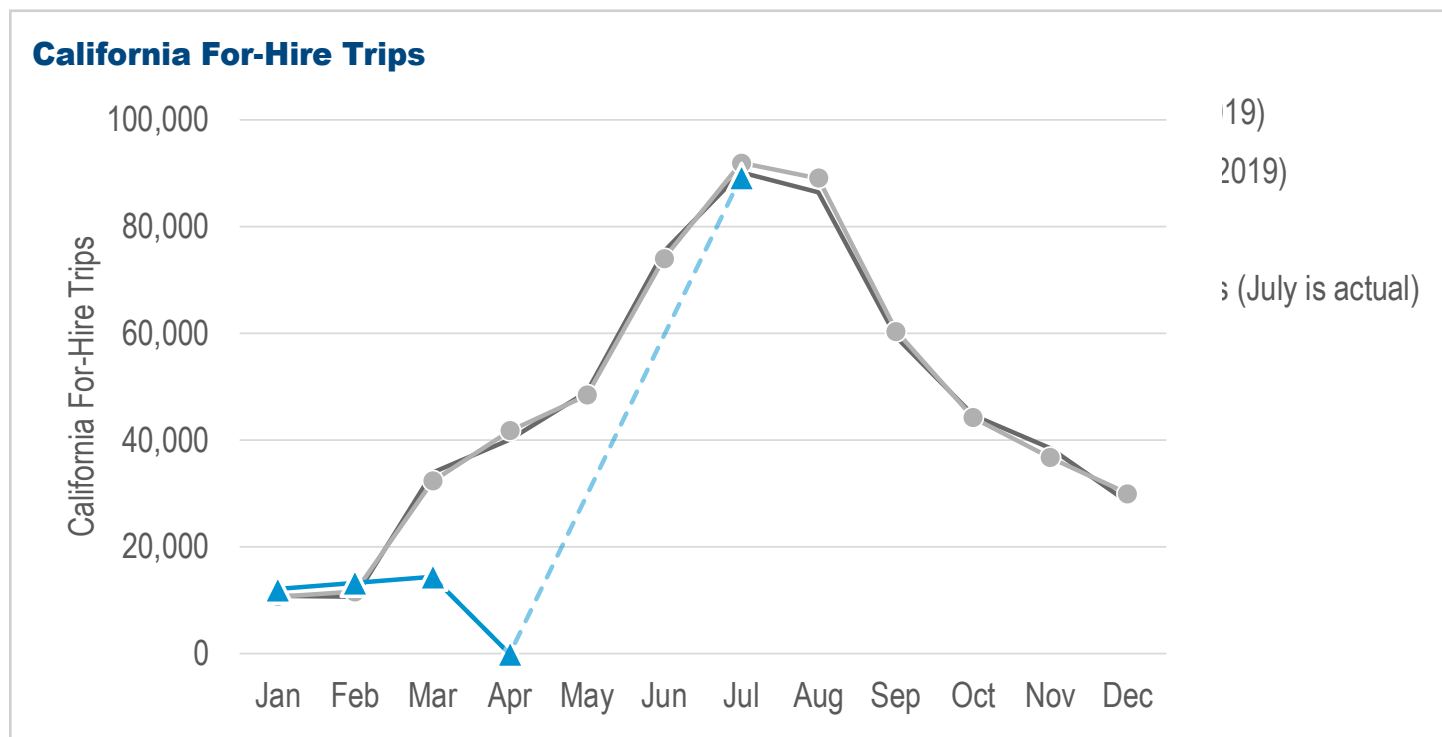


Figure 10. For-hire trips in Oregon.



Endnotes

- 1 Data source: https://dataexplorer.northwestscience.fisheries.noaa.gov/fisheye/landings_tracker/
- 2 USOFR. 2020. 50 CFR Part 660: Fisheries Off West Coast States; Emergency Action To Temporarily Remove Seasonal Processing Limitations for Pacific Whiting Motherships and Catcher-Processors (RIN 0648-BJ83). Federal Register 85:119(19 June 2020):37027–37030.
- 3 For the Dungeness crab fishery, we remove 2015 and 2016 from this calculation because the fishery received a Federal fishery disaster designation in both years. Removing the disaster years puts the median within 4% of the average from 2011 to 2019.



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