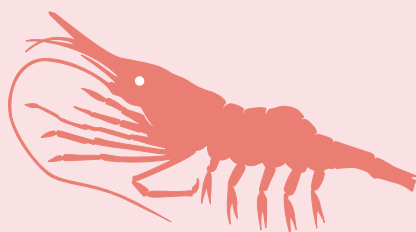


2019 Washington Pink Shrimp Fishery Newsletter



Washington Department of Fish and Wildlife
Region 6 Shellfish Management Program
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This newsletter provides a summary of the Washington commercial pink shrimp (*Pandalus jordani*) trawl fishery for the 2018 season and information for the 2019 season of interest to industry participants.

For additional fishery information go to:
<http://wdfw.wa.gov/fishing/commercial/shrimp/>



2018 Season Summary

The 2018 Coastal Pink Shrimp fishery saw a decline in participating vessels, but an increase in total landings over the 2017 season. This resulted in an overall increase in the average revenue per vessel. With the season opening as usual on April 1 and ending on October 31, the total pounds landed came in at 8.4 million pounds (Figure 1). This level of harvest is just behind the 8.6 million pounds average over the previous 10-seasons (excluding the usually large outlier landings in 2014 and 2015.) The number of active vessels making at least one landing dropped to 21 from a recent high during the high volume landing year of 2015 when 38 vessels made landings. As has been the long-term general trend, the number of limited entry permits in 2018 dropped by one license to 80, dropping from 81 in 2017 and the all time high of 125 in 1997 (Figure 1).

The total ex-vessel or direct value of \$5.7 million (Figure 2) followed the increase not only in total landings but also in a very substantial increase in the average weighted price per pound (Figure 3). The weighted average price per pound was 67 cents

Continued next page

up from 46 cents in 2017. This marked 2018 with the third highest average price since 1990, only trailing 1995 at 74 cents and 2015 at 72 cents. This compares quite favorably to the 15 year average of 43 cents (Figure 3). This increase in price reflected stronger global market conditions. Overall the ex-vessel total value of Washington pink shrimp landings made in 2018 was \$5.7 million, up from \$3.1 million in 2017, an increase of 84% over the previous season.

Landing patterns by area were nearly identical to the 2017 season and follow a general trend since 2014. Washington pink shrimp trawlers caught most (63%) of their 2018 shrimp from the mid-coast of Washington, with 33% from north coast catch areas and just 3% coming from out-of-state waters (Oregon and California; Figure 4). Landings peaked in the month of May at 2.2 million pounds, with June a close second at 2.1 and dropping off some in July at 1.8 million pounds, followed by the usual declines in August and September (Figure 5). There were only 16,300 pounds landed in October.

As noted in our 2017 update, the overall lower than average catch that season was driven by an unusual drop in landings in the latter portion of the season, which were likely tied to the low oxygen, hypoxic conditions. While landings improved slightly in 2018, there was a repeat of very low landings in the late season. However, indications of hypoxia did not seem to be as apparent and many fishers reported moving their operations away from Washington waters in an effort to avoid large abundances of small shrimp.

We are often surprised how few people are aware that Washington State has a coastal pink shrimp fishery. This is especially surprising when you consider that the fishery annually generates the 4th highest landing values of all coastal commercial fisheries. The value of pink shrimp landed into coastal Washington is only surpassed by Dungeness crab, at-sea whiting and albacore tuna. A side note, during the large pink season of 2015 Washington pink shrimp landed value exceeded all other fisheries (Figure 6).

2018 Accomplishments

Improving Conservation, Science and Management

- LED light rule adopted
- Adoption of the Coastal Pink Shrimp FMP
- MSC Certification
- 220 log books entered representing 3,850 tows
- 41 biological samples collected
- 4,401 individual shrimp sampled

Federal Grant to support LED Lights

We are excited to report that a federal grant has been received by our colleagues with the Oregon Department of Fish and Wildlife (ODFW) in cooperation with staff at California Department of Fish and Wildlife (CDFW) and WDFW to assist the west coast shrimp trawl fleet in the conservation of eulachon smelt. These fish are currently listed as threatened under the Endangered Species Act (ESA). These funds will be used to supply a set of LED lights to each active pink shrimp vessel on the US west coast and also to develop and distribute information regarding bycatch that will be useful to you and your crews. We will be in contact with each of our vessel operators starting sometime in June as we begin to distribute these lights.

Fishery Landing Statistics

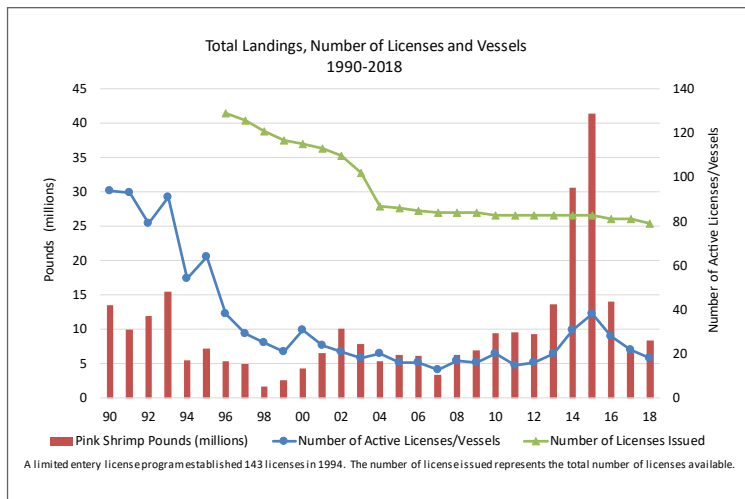


Figure 1. Washington pink shrimp fishery landings (pounds), number of active vessels and number of limited entry licenses, 1990-2018.

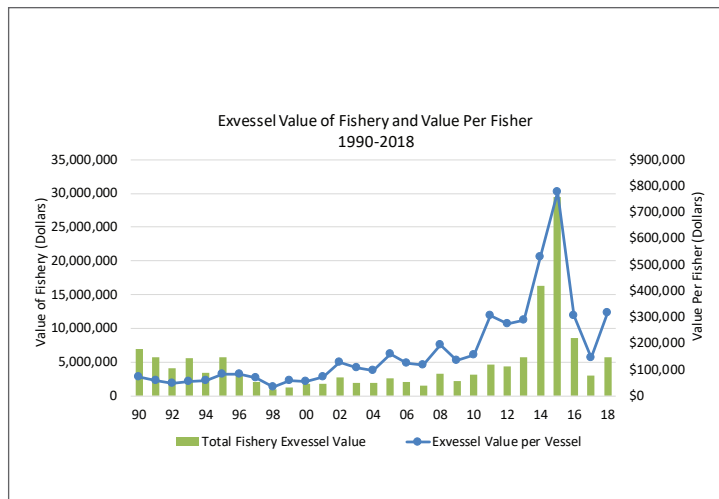


Figure 2. Washington pink shrimp total fishery ex-vessel value and value per fisher, 1990-2018.

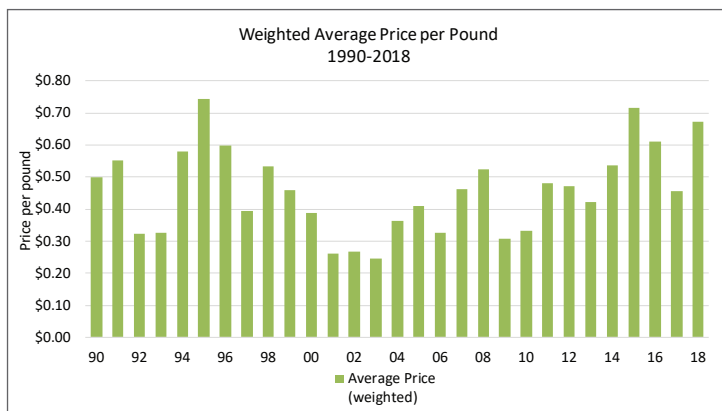


Figure 3. Washington pink shrimp fishery weighted average price per pound (1990-2018)

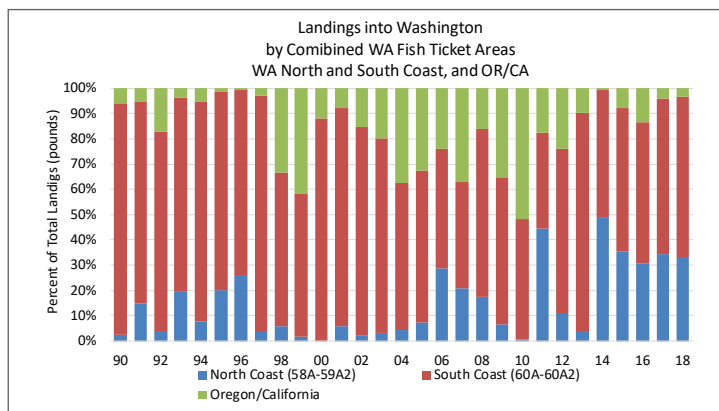


Figure 4. Washington shrimp fishery catch by combined fish ticket areas, 1990-2018.

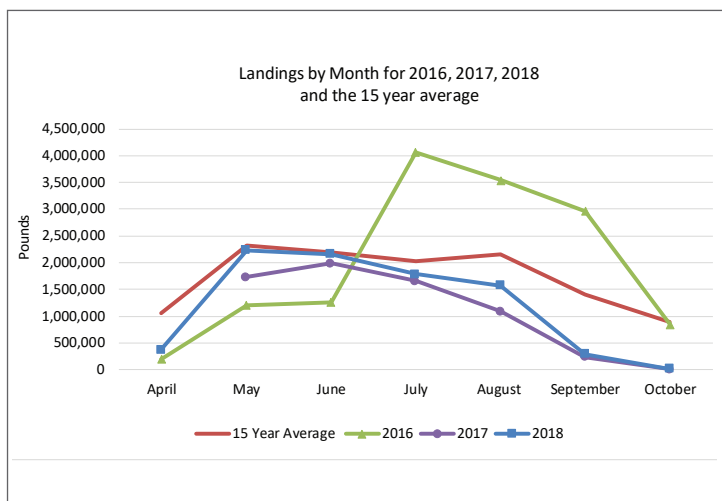


Figure 5. Washington pink shrimp landings by month for 2015, 2016, 2017, 2018 and the 15-year average.

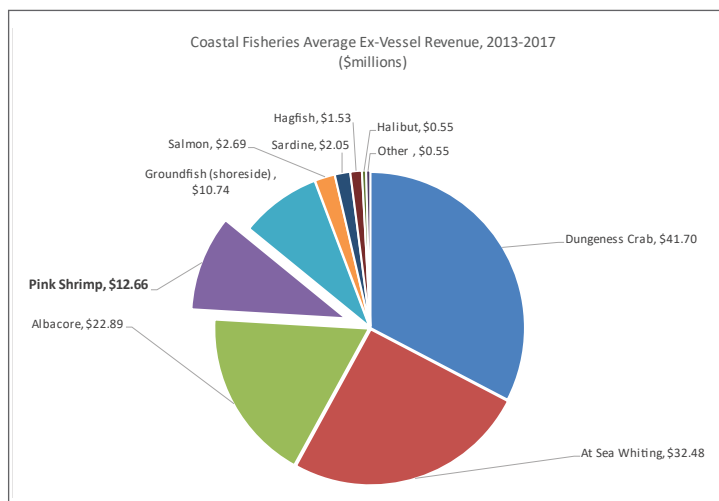


Figure 6. Coastal Fisheries Ex-Vessel Average Revenue

2018 Fishery Monitoring and Research

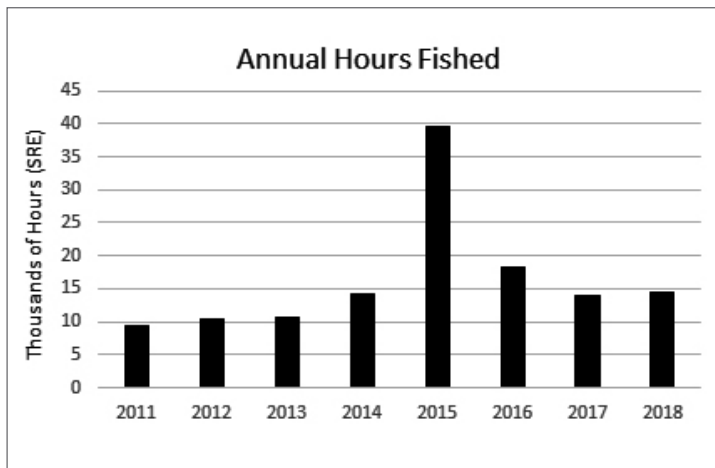


Figure 7. Estimated total annual hours fished (1000s), 2011-2018.

Effort

Shrimpers spent nearly the same amount of time on the water, roughly 15,000 hours (SREs*), in 2018 compared to 2017 (Figure 7). The overall distribution of effort along the coast was also very similar: in both years about 60% of the fishing time was centered at “Grays Harbor” and a third at “Destruction Island” (Figure 8). Spring 2018 fishing was limited to these two areas and both were consistently fished throughout the summer, with some effort stretching south to “Bandon Bed” off Oregon. In July more time was spent fishing the Destruction Island area than elsewhere. Effort in August again centered on Grays Harbor. Late summer was effectively the end of the season for fishing off Washington as little time was spent fishing north of the Columbia River in September and October.

Catch Distribution

Not surprisingly, catch by month and area through 2018 largely mirrors effort (Figure 9) with 60% of the shrimp caught from “Grays Harbor” and a third at “Destruction Island.” In total, 95% of the shrimp landed in Washington originated off Washington. A “heat map” is another way to visualize catch distribution and volume (Figure 10). The intensity of color equates to the volume of catch, ranging from white representing low catch to dark red signifying high catch or fishing “hot spots.”

Not all the shrimp caught off Washington are landed locally. The coastal shrimp fishery is not constrained by state lines so vessels may fish federal waters off Washington, Oregon and California and deliver into any state for which they are licensed. In 2018, 5.0 million pounds of shrimp caught off WA were landed in Oregon. This is an increase over 2017, when 2.8 million pounds from Washington catch areas were landed there, but both years are substantially less than the 11 million pounds in 2016.

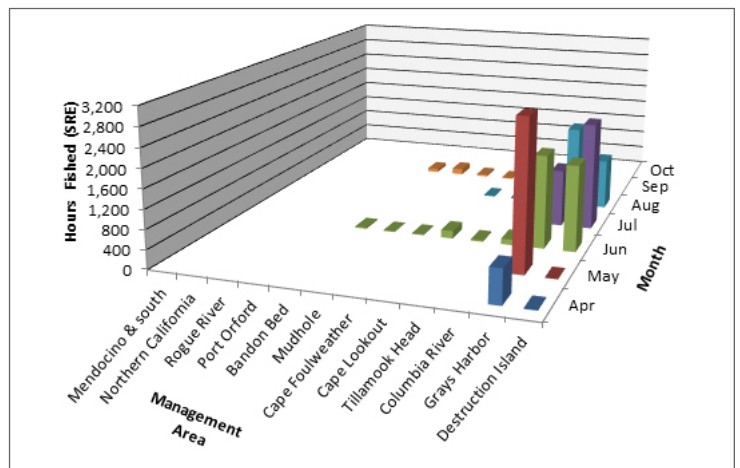


Figure 8. Estimated total hours fished by management area and month for 2018.

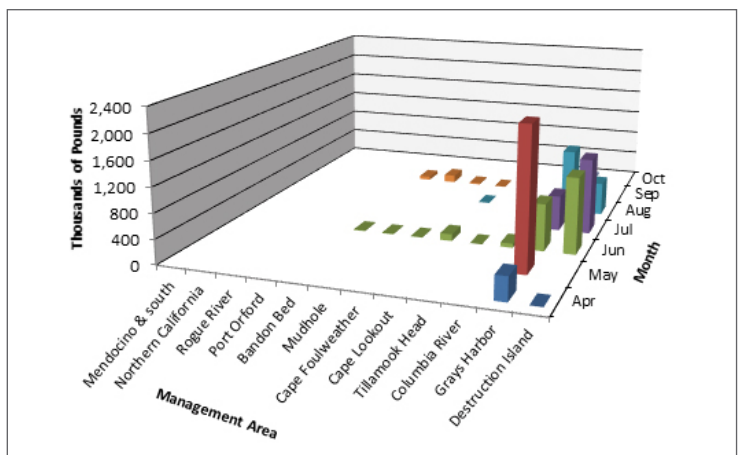


Figure 9. Estimated total pink shrimp pounds landed into WA by management area and month.

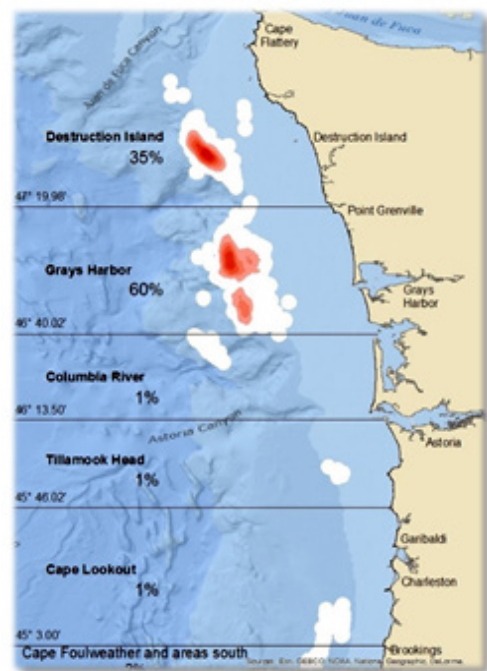


Figure 10. Distribution, by percent, of pink shrimp catch landed into Washington by management area in 2018.

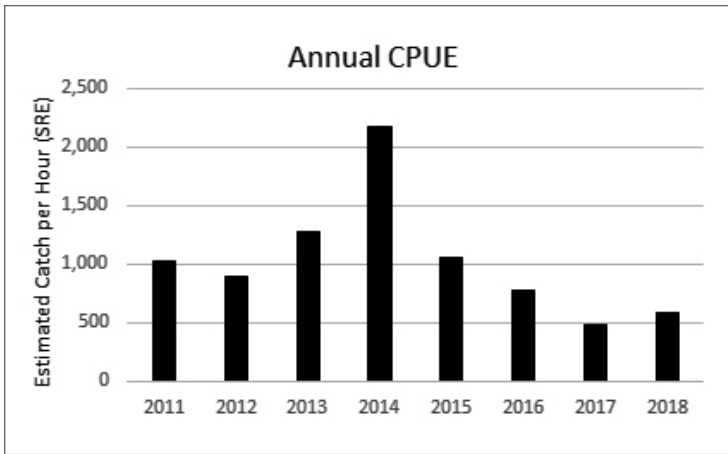


Figure 11. Estimated average annual pink shrimp pounds caught per SRE hour landed into Washington, 2011-2018.

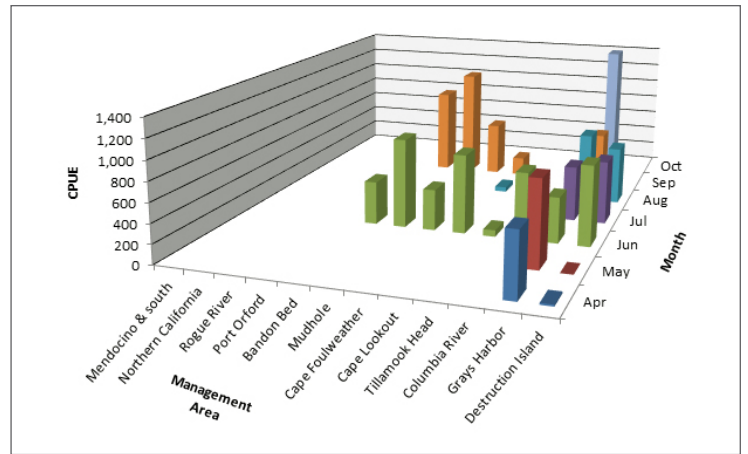


Figure 12. Estimated average pink shrimp pounds caught per SRE hour by management area and month, landed into Washington in 2018.

Catch Rates

Fishing efficiency, or catch per unit of effort (CPUE), improved slightly in 2018 over 2017 but remained well below the “historical” average of 1,030 shrimp pounds per trawl hour (Figure 11). Given the relatively few years the Washington logbook program has been in place, getting a truly long-term perspective is not possible. However, trends in CPUE off Washington generally have been similar to the Oregon shrimp fishery, at least as far as the data extends (2011 to present). This suggests that while lower, the CPUE for 2018 represents a more typical CPUE for the fishery than the higher values experienced over the past several years. Off Washington, CPUE peaked in May and was fairly consistent through the remainder of the 2018 fishery season (Figure 12). Comparatively high CPUEs were evident in areas off Oregon but fishing there comprised little in terms of overall effort (hours) and thus total catch.

Fishing Depth

Anecdotal reports that shrimpers have had to fish deeper than has been historically typical to maintain shrimp production are borne out by logbook data. Again, “historic” must be taken in context of our limited time series. To evaluate the pattern of fishing depths, average tow depth was calculated for each tow with complete depth (set and up or haul) data reported in the logbook and these were then averaged by month for each year.

In the plot at right, clusters of points closer to each other are more similar and clusters of points further apart are less so (Figure 13). Although the distance between individual years may look meaningful, it is not necessarily so. This is because the plot must be two-dimensional to be printed and that can distort our view of the data points. Also, where the points fall from left to right or top to bottom does not represent actual depths. For this plot it is more important to pay attention to the two groups.

*** Single Rig Equivalents (SRE)**

Effort is measured in “single rig equivalents or SRE. Fishing hours for vessels towing one net (single-rig) are used as is, whereas each fishing hour for double-rig vessels is multiplied by a factor of 1.6. Standardizing fishing time to SRE allows comparison across past years when single-rig vessels were more prevalent.

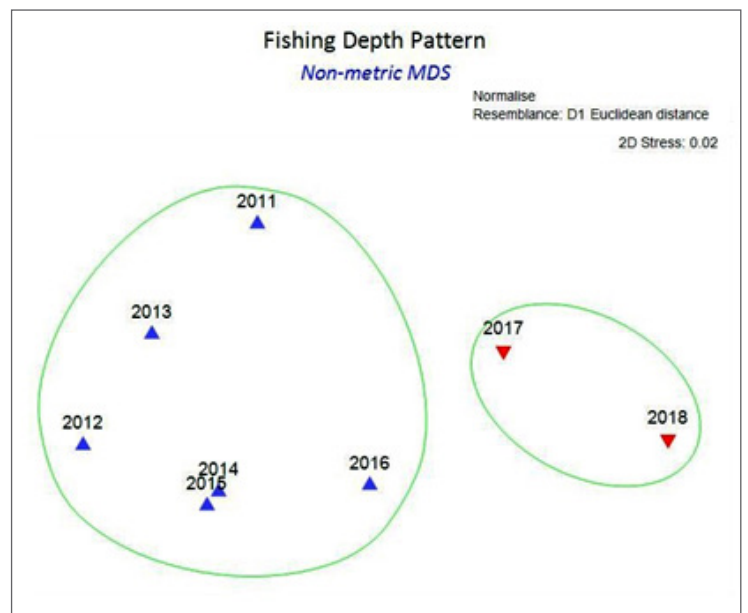


Figure 13 . Fishing depth comparison across years, showing 2017 and 2018 fishery footprint is different than prior years.

In this case, 2011-2015 group together in one circle indicating similar fishing patterns by depth for those years. The separation of 2017 and 2018 into their own cluster indicates there is a difference in average tow depth between the two groups of years. It is not apparent in the plot because of the distortion mentioned above, but the distance between 2017 and 2018 does reflect that the data for these two years are also somewhat different from each other. The same analysis was done, but not presented here, to test if fishing area had an effect, i.e., whether some areas are typically fished deeper or shallower than others but no differences by area were apparent.

Overall, the 2017-2018 average fishing depths are different than the earlier years. Shrimpers speculate that water temperature and possibly hypoxia may be driving shrimp further offshore. Gathering temperature data at the tow level may be worth exploring.

Biological Sampling

Improving coverage over 2017, our shrimp technician sampled 41 landings to collect count per pound, length and sex data. Samples were collected monthly and represented catch that originated from offshore Washington and Oregon. Shrimp are primarily landed at Westport and Ilwaco. However, we only sample at Westport due to a limited number of staff, making the assumption the landings there are generally representative of the fishery.

Count per Pound

Overall counts weighted by catch – regardless of where the shrimp were caught – averaged 131 per pound for the 2018 season. Excluding shrimp originating off Oregon, the catch weighted counts averaged 147. The difference is mainly due to larger shrimp landed into Washington from Oregon waters in September. Monthly counts for Washington origin shrimp are shown in Figure 14.

Similar to 2017, we noted several high counts for individual landings during the season. Of the 41 samples collected in 2018, 10 had totals that exceeded the legal maximum of 160. Most of the high counts fell in June – where 60% of the samples for that month ranged from just slightly over 160 to 168. Because biological sampling protocols entail collecting only a few pounds of shrimp per offload, these counts are not necessarily the results we’d obtain if we were following the



count per pound compliance sampling requirements. Those involve averaging the counts after collecting a pound per 1000 pounds of shrimp offloaded. Nevertheless, the sampling data is indicative and shrimpers need to take greater care to avoid small shrimp.

Shrimp Age Classes

Shrimp lack physical “age” structures or body parts like otoliths (ear-bones) or scales that are typically used to age fish. Instead, the carapace is measured. Since shrimp eggs are released simultaneously, shrimp of similar size can be assumed to be of

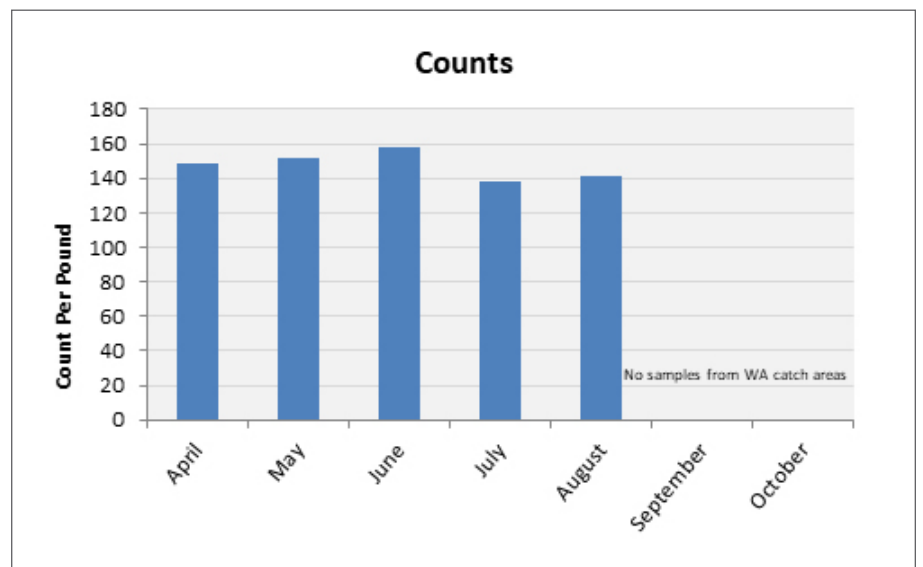


Figure 14. 2018 monthly weighted average count per pound for Washington catch areas only.

similar age. By grouping carapace lengths and plotting these data, we can visually characterize the age classes present in any given year in the fishery. Here we include data collected at Westport as well as data provided to us from the Oregon Department of Fish and Wildlife (ODFW). The ODFW data comes from vessels that fished off Washington and landed at Oregon ports.

The graph at right shows the carapace length distributions of shrimp originating only off Washington and sampled April through August 2018 (Figure 15). The monthly plots show age 1 shrimp comprised the majority of the catch for the year.

We do not show results for September or October because either the shrimp were caught off Oregon or were outside our mid-month sampling window. The few landings into Washington in October were early in the month and we could not anticipate they would be the only ones.

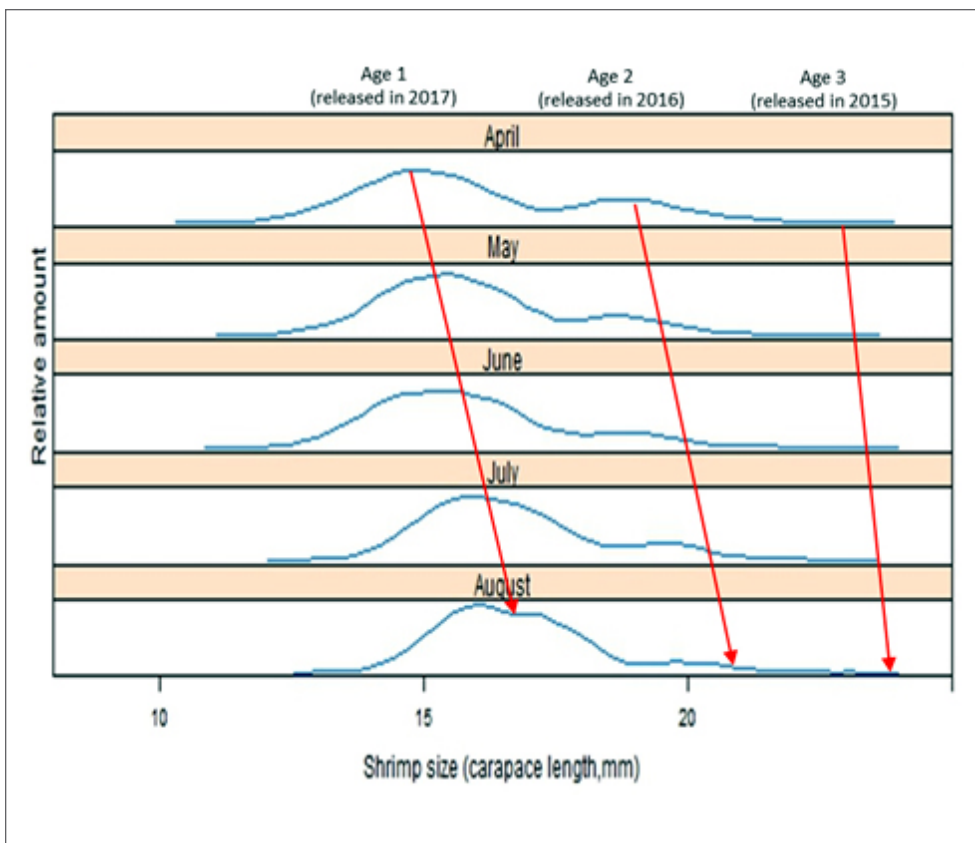


Figure 15. Carapace length (mm). Size distribution of pink shrimp caught in April through August 2018, including only shrimp caught off Washington.

Prospects For 2019

Prospects lean toward another “average” year off Washington, that is, more similar to the years before the banner seasons experienced between 2013 and 2016.

The Oregon forecast for their upcoming season is for a moderate year¹. A model developed by ODFW comparing many years of shrimp population data and environmental data demonstrates a clear relationship between ocean conditions and shrimp recruitment. Sea-level height as measured at Crescent City, CA has proven to be a good “representative” of environmental conditions, with lower sea-level heights associated with better shrimp recruitment in Oregon.

Shrimp caught in 2019 are coming from three year classes: 2016, 2017 and 2018. Model predictions were for 2016 and 2018 to be moderate in strength, with 2017 projected to be strong; and observations are consistent with these expectations.

How well this model might apply to shrimp recruitment off Washington is uncertain. Even though, in terms of volume, catch for our state is about one-quarter to one-third of Oregon’s, the trends are fairly similar.

¹ Groth, S.D., Blume, M., and J.M. Smith (2019). 30th Annual Pink Shrimp Review. Oregon Department of Fish and Wildlife Marine Resources Program, Newport, Oregon. 15 pp.



2018 Enforcement Report

During the 2018 season, WDFW Police Region Six Coastal Detachment reported the following coverage specific to the pink shrimp fishery:

- **Number of Contacts:** 86 (primarily dockside offloads, but includes at-sea boarding)
- **Violations:** 2 (1 warning for broken excluder, 1 warning for shrimp count)
- **Hours of Patrol:** 45

Eulachon Management and Research

Minimizing incidental catch or bycatch in the pink shrimp fishery has been a major focus of management since the early 2000s. Finfish excluders (or biological reduction devices) first became mandatory for Washington shrimpers in 2003 to protect Canary Rockfish and other rockfish that had been declared overfished by the National Marine Fisheries Service. By diverting fish out openings at the top of the net, the use of excluder panels significantly reduced rockfish bycatch. Subject to a comprehensive rebuilding plan, the Canary Rockfish population was deemed rebuilt in 2015 and the others in 2017.

In 2010, the southern distinct population of Eulachon smelt, another common bycatch species in the shrimp fishery, were federally listed as a threatened species under the Endangered Species Act. This spurred the need for new conservation measures. Further study led to excluder panel modifications (narrowing the spacing between panel bars to $\frac{3}{4}$ " in 2012) and to the use of green fishing lights on shrimp trawl footropes (in 2018) which were found to reduce eulachon smelt bycatch by 80-90% (Lomeli 2018).

While WDFW shrimp managers strive to reduce bycatch and thereby improve the fishery's sustainability, our colleagues in the Columbia River Management Unit (based at the agency's Southwest Region office in Ridgefield) lead Eulachon (Columbia River smelt, Pacific smelt) management and research. Columbia River Unit Program managers provided the following to highlight WDFW accomplishments in 2018 to better understand Eulachon population abundance and dynamics:

- Continued annual spawning stock biomass estimation for the mainstem Columbia River Eulachon population (upstream from the estuary; Figure 16).
- Continued spawning stock biomass estimations for the Chehalis River Eulachon population for the purpose of understanding the role that neighboring estuaries may play in stabilizing the total population and influencing the run to the Columbia River (Figure 17).
- Compared the patterns of SSB estimations for the Columbia River Eulachon populations with those from other populations, such as the Fraser River.
- Continued collaboration with the Cowlitz Indian Tribe to develop SSB estimations for the Cowlitz River, in order to better understand the distribution of Eulachon spawning in the Columbia River mainstem and its tributaries.
- WDFW is analyzing Eulachon samples collected in marine waters that appeared to be post-spawn females. This is of interest because we generally assume that Eulachon die shortly after spawning.

WDFW participated in establishing the Eulachon Recovery and Implementation Framework, and will participate in the Eulachon Technical Recovery and Implementation Team (ETRIT).

Lomelli, M.J.M, S.D. Groth, M.T.O. Blume, B. Herrmann and W.W.Wakefield. 2018. Effects on the bycatch of eulachon and juvenile groundfish by altering the level of artificial illumination along an ocean shrimp trawl fishing line. *ICES Journal of Marine Scienc*, 76, 6, 2224-2234.

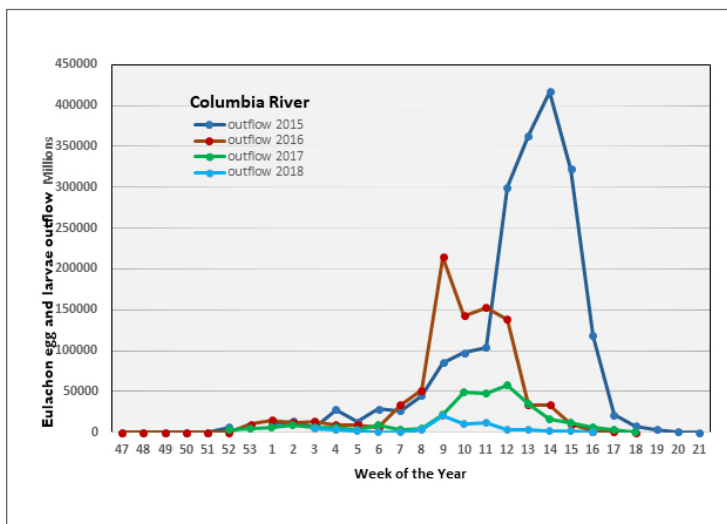


Figure 16. Comparison of estimated weekly outflow (passive outmigration) of eulachon smelt plankton (eggs and larvae) into the Columbia River estuary at the Clifton Channel – Price Island transect for 2014-2015, 2015-2016, 2016-2017, and 2018.

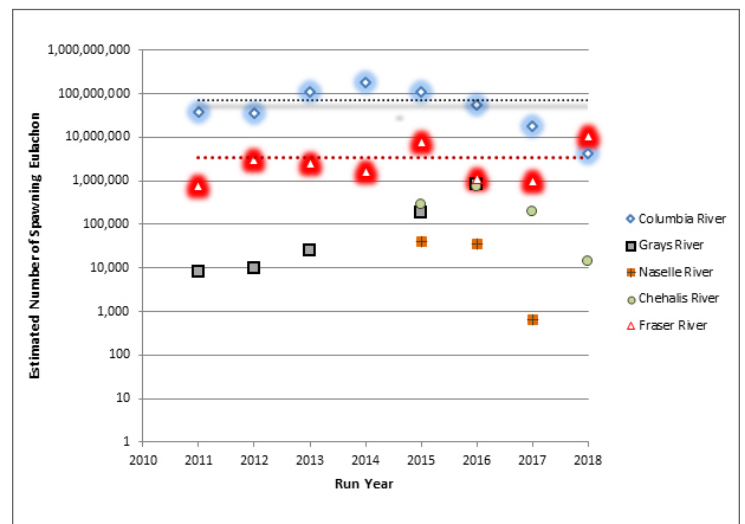


Figure 17. Comparison of estimated number of eulachon spawning in the Columbia River, Fraser River, Chehalis River, Naselle River, and Grays River.

Priority Actions

Fishery Management Plan

It's done! In December, WDFW Director Kelly Susewind adopted the Coastal Pink Shrimp Fishery Management Plan (FMP). While most of the principles the FMP sets forth have guided the fishery for decades, this marks the first formal plan for the coastal pink shrimp fishery – putting to paper the commitment to resource conservation and economic viability. Importantly, it fulfills a condition for certification by the Marine Stewardship Council.

Together the FMP and this newsletter serve to promote management transparency. The FMP sets out long-term guiding principles* for the fishery and as a partner document, this newsletter will report on shorter-term initiatives and actions that support accomplishing those principles.

The FMP also establishes priorities under the “Research Needs and Data Gaps” section to focus limited agency resources. Highlighted are biological data and bycatch reduction. We continue to improve our biological sampling program, and will consider promising technology and best fishing practices to reduce bycatch.

A hard copy of the FMP is being provided to each license holder and alternate operator. It is also available online at https://wdfw.wa.gov/fishing/commercial/shrimp/notices_letters.html

Marine Stewardship Council Certification

2018 marked the completion of the coastal pink shrimp fishery's first “5-year” certification period as a sustainable wild-caught seafood fishery under Marine Stewardship Council criteria. Initially certified in 2015 under a scope extension of the Oregon pink shrimp fishery, the Washington fishery followed an expedited process to achieve this milestone.

The coastal pink shrimp fishery is the only state-managed fishery in Washington to be independently recognized as a sustainable fishery. Adaptive management, close collaboration with Oregon shrimp managers and the outstanding Oregon Department of Fish and Wildlife science program were key elements in this accomplishment.

Why is this important? Markets are dynamic but preference for responsibly harvested seafood continues to grow. As much as 50% or more of the shrimp landed in Washington and Oregon are destined for markets that demand sustainably sourced seafood. Fishery sustainability has long been a factor for gaining and maintaining access to European markets; this is true for the US as well.

The current certification is valid for five years, through

February 2023. At that time, the fishery will need to be re-evaluated. During the intervening years, independent reviewers will conduct annual audits to monitor fishery performance. This year the audit is scheduled for March with a report due by end of May, 2019.

General information about the MSC program can be found at: <https://www.msc.org/>

Notices, assessment and audit reports specific to the Oregon-Washington ocean pink shrimp fishery can be found at: <https://fisheries.msc.org/en/fisheries/oregon-and-washington-pink-shrimp>



* Guiding Principles for Management

- Use best available science to inform management decisions.
- Utilize a precautionary approach to guide decision-making in the face of scientific and/or management uncertainty.
- Support tribal fisheries, which are consistent with the applicable federal court orders while recognizing the need for management flexibility to optimize fishing opportunity.
- Structure fishery regulations to pursue effective enforcement and avoid conflicting regulations with adjacent states.
- Engage and collaborate with stakeholders, consumptive and non-consumptive, ensuring public transparency.
- Consider socio-economic effects on harvesters, dealers and processors, and coastal communities dependent on the fishery.
- Support development of innovative harvest methods or gears to reduce bycatch and any adverse effects on seafloor habitat.
- Employ technologies to achieve effective, efficient use of agency resources.
- Allow for recreational opportunity if/as interest arises.
- Manage fishery using reference points to ensure long-term conservation of the resource.

New Fish Ticket Regulation

A new regulation adopted in 2018 requires dealers to report the port of landing on fish tickets (WAC 220-352-040). Electronic fish tickets have a space for selecting the port code and new paper versions of the shellfish ticket will have a space to write the port code in. For older versions of paper tickets that do not have a specific space, please record the port code number in the “Dealer’s use” section.

ATTENTION SHRIMP DEALERS *New fish ticket regulation!*

A list of coastal region port codes is provided here. For a copy of the regulation or a complete list of all state port codes, including Puget Sound, please contact one of us.

Fish Ticket Port Codes - Coastal

County	Port	Code
Grays Harbor	Aberdeen	210
	Bay City	220
	Copalis Beach	230
	Grayland	235
	Hoquiam	240
	Moclips	270
	Oakville	275
	Taholah	290
	Westport	295
Lewis	Centralia - Chehalis	225

County	Port	Code
Pacific	Bay Center	310
	Brookfield	404
	Chinook	409
	Grayland Beach	315
	Ilwaco	421
	Long Beach	320
	Megler	426
	Nahcotta	330
	Naselle	340
	Pacific County	431
	Raymond	345
	South Bend	350
	Tokeland	360

Electronic Fish Tickets “E-tix”

In 2018, the Washington Fish and Wildlife Commission approved new regulations that allow dealers to voluntarily submit fish tickets electronically to WDFW through the Pacific States Marine Fisheries Commission’s E-Tix Portal for select coastal fisheries. Dealers are able to sign an agreement with the Department that permits them to submit electronic fish tickets for specific fisheries outlined in the agreement. Under this voluntary system, the dealer then commits to using only electronic fish tickets for the selected fisheries and areas until they choose to opt out. Currently, electronic fish tickets are required for West Coast directed groundfish landings, Pacific halibut, research landings and Alaskan groundfish. Once a fishery has mandatory electronic fish tickets a dealer will be unable to opt out.

As of this newsletter, most coastal shrimp dealers are opting to use the “E-tix” system in 2019. Those still relying on paper tickets are encouraged to consider using the opportunity to become familiar with the system while it is voluntary. We have not made a decision as to when E-tix may be mandatory for pink shrimp, however this may be a likely next step. Coastal Dungeness crab, like shrimp, is operating under the voluntary agreement approach. For crab, there are plans to move to mandatory electronic tickets for the 2019-20 season.

We welcome comments from dealers, especially from those whose operations make using electronic fish tickets challenging. Any specific questions can be directed to Jessi Doerpinghaus at 360-902-2675.



Reminder:

Logbooks are due by the **10th** day of the month following any shrimp fishing activity

Logbook Drop Box

With cooperation of Washington Crab Producers, WDFW has recently installed a new, secure logbook drop box in Westport. You will find this in the Washington Crab weigh shack or buying station on the Dock Street dock, in Westport. Feel free to use this location to drop off your logbooks at the time of landing. Only our staff will have access to the contents of the box and they will regularly collect logbooks from this location. It is our hope that this convenience will make it easier for you and provide us logbooks in a timely fashion. Of course, you are still welcome to mail your logbooks to us, drop them off at our Montesano Office or hand them to a WDFW staff member in port.

Our office location and mailing address are:

WDFW, Region Six Office
48 Devonshire Road
Montesano, WA 989563

Regulations

Coordination with Oregon and California

While most regulations are similar, when fishing offshore other state shrimpers are reminded to confirm that their operations conform to that state's regulations. For example, Oregon law does not authorize the landing of frozen shrimp, whereas this activity is permissible via permit in Washington. Also, Oregon licensed shrimpers can trawl in that state's territorial waters; conversely, Washington does not allow any trawling in its coastal territorial waters (0-3 miles).

Fishing lights are required in all three states.

Shrimp trawl logbooks are required by both WDFW and ODFW, and each agency will accept the other state's logbook.

Freezing at Sea

As mentioned above, Washington regulations do not explicitly prohibit freezing catch at sea. However, to address fishery specific needs, the pink shrimp trawl fishery permit now has provisions to support monitoring and sampling of frozen landed catch. The permit requires those who intend to process shrimp at sea off Washington by freezing their catch to:

- notify the WDFW their intent to do so;
- notify WDFW personnel 24 hours in advance of landing;
- provide (upon request) WDFW a sample of 25 pounds of whole shrimp processed at sea by freezing and a sample of 25 pounds of fresh shrimp.

Vessel Monitoring System (VMS)

The National Marine Fisheries Service requires any vessel using non-groundfish trawl gear in federal waters to have VMS installed. Declaration reports are also mandated prior to fishing. Specific compliance information can be found at the NMFS Vessel Monitoring System website at: <http://www.westcoast.fisheries.noaa.gov/fisheries/management/vms.html> or contact the NMFS Office of Law Enforcement (OLE) at 206.526.6140

Groundfish Limits

Limits have not changed from 2018.

Shrimp trawlers are limited to 1,500 pounds of groundfish per TRIP with a daily limit of 500 pounds. Included in the daily and trip limits are sub-limits for: lingcod at 300 pounds per month with a 24" minimum size, and sablefish at 2000 pounds per month. Canary Rockfish, Yelloweye Rockfish and thornyheads are all PROHIBITED. All other groundfish species taken count towards the 500 per day or 1,500-pound trip limits and do not have species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.

A complete copy of Pacific Coast Groundfish Fishery management measures for 2018 can be found under "Public Notices, Inseason Updates and Trip Limit Tables" here: <http://www.westcoast.fisheries.noaa.gov/fisheries/groundfish/index.html>

Fishing Lights

Beginning last season, Washington shrimpers are required to use fishing lights on the footrope of each trawl net. Similar rules apply when fishing off Oregon. Shrimpers fishing both Washington and Oregon should note the specifications are the same for both states. The approved lighting devices are listed below.

The rule language:

Washington Administrative Code 220-340-500

Commercial ocean pink shrimp trawl fishery—Coastal waters.

(7) It is unlawful to fish with trawl gear for pink shrimp for commercial purposes unless footrope lighting devices that have been approved by the department are used in each net. A list of approved footrope lighting devices is available from the department.

Footrope lighting devices must meet the following criteria:

- (a) Lighting devices must be operational;
- (b) Lighting devices must be securely attached within six inches of the forward leading edge of the bottom panel of trawl netting; and
- (c) Each trawl net must have a minimum of five lighting devices, spaced four feet apart in the central sixteen feet of each net.

(8) It is unlawful to modify footrope lighting devices or device placement on the footrope in any way inconsistent with subsection (7)(c) of this section, except as provided by special gear permit as described in subsection (9) of this section.

(9) Testing of footrope lighting devices or placement on the footrope is allowed by special gear permit only, consistent with the terms and conditions of the permit.

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- **Shrimpers are to be commended for voluntarily using lights to reduce bycatch before 2018.**
 - **The move to require the use of lights AT ALL TIMES recognizes that the need to minimize bycatch is important NOT ONLY when bycatch volumes are high.**
 - **Low by catch volumes can reflect poor abundance, making the use of lights even more important.**
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Figure 18. Lindgren-Pittman Fishing Light



Figure 19. Deep-Drop Fishing Light



Figure 20. LED Rope Light - Green

Three lighting devices are approved for use:

1. Lindgren-Pitman “LP Electrolume Light” – Green (Figure 18)
2. Catch All Tackle “Deep Drop LED Fishing Light” – Green (Figure 19)
3. Rock-engineering “LED Rope Light” – Green (Figure 20)

The Washington rule does allow us to issue special gear permits to shrimpers to test new lighting strategies. These permits would be evaluated and issued on a case-by-case basis, and would require very close collaboration with WDFW shrimp managers. This permit provision is unique to Washington and permits would authorize the special gear testing only in waters offshore Washington.

The 2017 federal eulachon smelt recovery plan identified adoption of fishing lights as a five-year action item. You are well ahead of schedule! We encourage your continued efforts to reduce bycatch. Supporting and ensuring the sustainability of the fishery remains a management priority.

Crewmember License

Beginning in January 2018, Crewmember licenses are required for all individuals age 16 and older working on-board all commercial fishing vessels that land fish or shellfish in Washington State. An individual can purchase their own crewmember license that is valid for participating in all Washington commercial fisheries. A vessel operator can purchase up to two undesignated crewmember licenses to accommodate crewmembers who do not have their own individual crewmember license. The undesignated crewmember license covers only one crewmember at a time but will allow for frequent crewmember changes. Primary and alternate operators are exempt from needing to purchase a crewmember license as long as they are on board a vessel that designates them as an operator. Immediate family members, including spouses, children, or grandchildren of a person who holds a commercial license or alternate operator license are exempt from the crewmember licensing requirement.

Individual crewmember licenses can be purchased at any license vendor, and undesignated crewmember licenses can be purchased at WDFW licensing department in Olympia when renewing an annual license. Undesignated and individual crewmember licenses cost \$40.50 for Washington state residents and \$123.00 for non-residents.

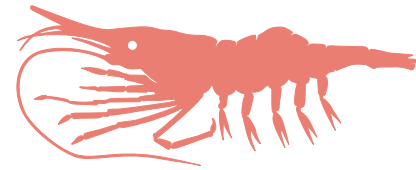
For more information or to purchase a crewmember license, go to: https://wdfw.wa.gov/licensing/commercial/crewmember_licenses.html

Small Vessel Incidental Discharge Permitting

The Vessel Incidental Discharge Act (VIDA) legislation, enacted on December 4, 2018, repeals the Small Vessel General Permit (sVGP) issued on September 10, 2014 for the control of incidental discharges for vessels less than 79 feet in length (i.e., small vessels). That permit is no longer in effect. The VIDA legislation also specifies that, except for ballast water, discharges incidental to the normal operation of small vessels and commercial fishing vessels of all sizes no longer require NPDES permit coverage.

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Pink shrimp, Pandalus jordani

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Our Website:

<http://wdfw.wa.gov/fishing/commercial/shrimp/>