



Washington Coastal Dungeness Crab Fishery Newsletter

In this newsletter you will find important information on the 2023-24 Washington coastal commercial crab season and a recap of the 2022-23 season.



28.7 million pounds
highest catch
ever recorded



82% of harvest
in two months
(February - March)



**\$2.88 per
pound**
average price



96% more crab
caught this season than
previous 10-year average



Fishing vessel Jeannie Irene in Ilwaco. Photo by Kelsey Cutting.

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2022-23 season summary

Record-breaking season

The Washington coastal Dungeness crab fishery set a record for catch during the 2022-23 season with total landings of over 28.7 million pounds – exceeding the 2021-22 season total by 10 million pounds and the previous 10-year average by 14 million pounds. Included in this total were 4.6 million pounds in tribal landings and 24.1 million pounds in landings by state crabbers.

Coastal crab landings have steadily increased over the past 30 years, despite substantial interannual variability (Figure 1). Historically, years of high crab abundance have been followed by low abundance four years later.

The 2022-23 season had the second-highest total ex-vessel value recorded in the past 10 years (Figure 2). The ex-vessel value of state landings equated to \$64.6 million, surpassed only by the previous season high of \$88.2 million in 2021-22.

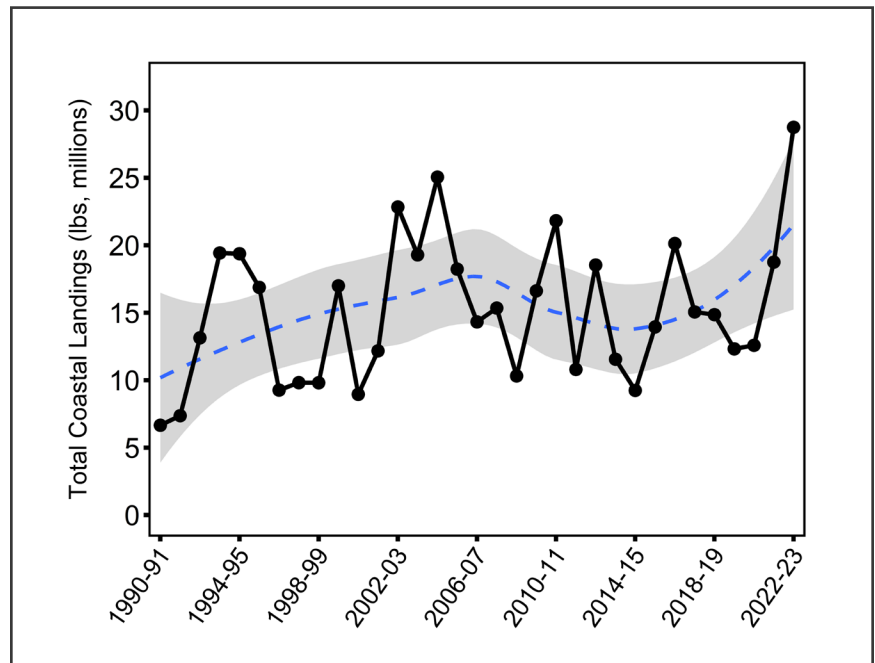


Figure 1. Total Dungeness crab landings for the Washington coast (treaty and non-treaty fisheries; millions of pounds), 1990-91 to 2022-23.

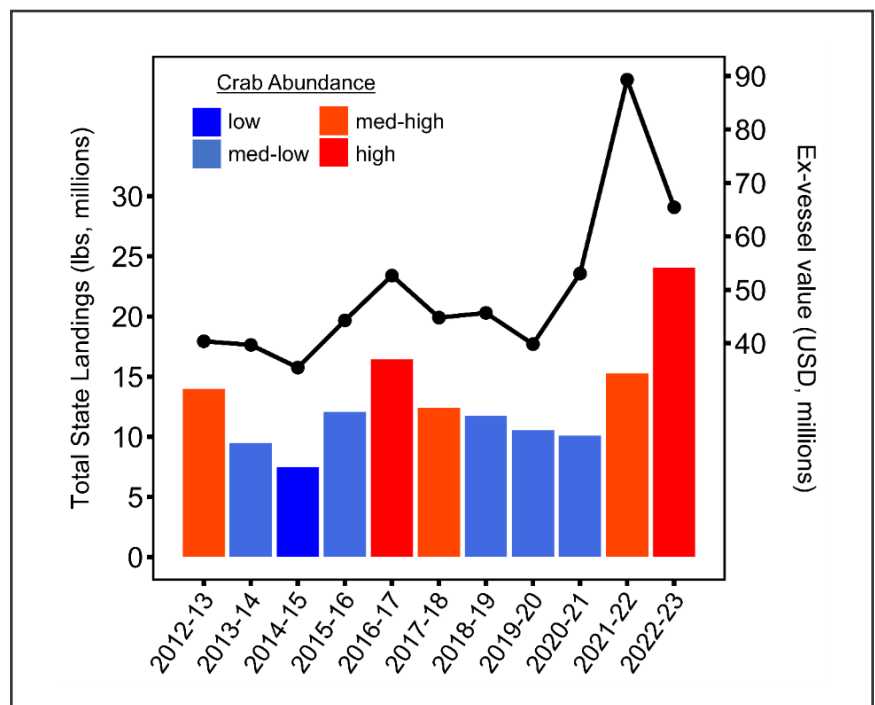


Figure 2. Total coastal state landings (bars) and ex-vessel value (line), 2012-13 to 2022-23. Bar colors indicate the relative crab abundance for each season compared with the past 30 seasons.

Ex-vessel value was lower than the 2021-22 season due to a depressed per pound price following the start of the fishery in February. In total, 194 license holders made 4,804 landings into Washington. Of these landings, 82% occurred in the first two months when the average per pound price was below \$3, driving down the season average to \$3.20 (Figure 3).

Price peaked in July, with an average of \$4.97 and a maximum of \$6.50. However, only 0.5% of landings occurred during this time frame.

Late start did little to slow fishers

The 2022-23 season opened for the state fleet from Klipsan Beach, WA, to Cape Falcon, OR, including Willapa Bay, on Feb. 1. The area from Klipsan Beach to the U.S.-Canada border opened to state fishers on Feb. 6. Traditional fair-start provisions delayed the time when vessels that participated in the area south of Klipsan Beach could move into northern areas.

The majority of crab (55%) was caught in the 60A-2 catch reporting area with boundaries between Point Chehalis and Cape Disappointment (Figure 4).

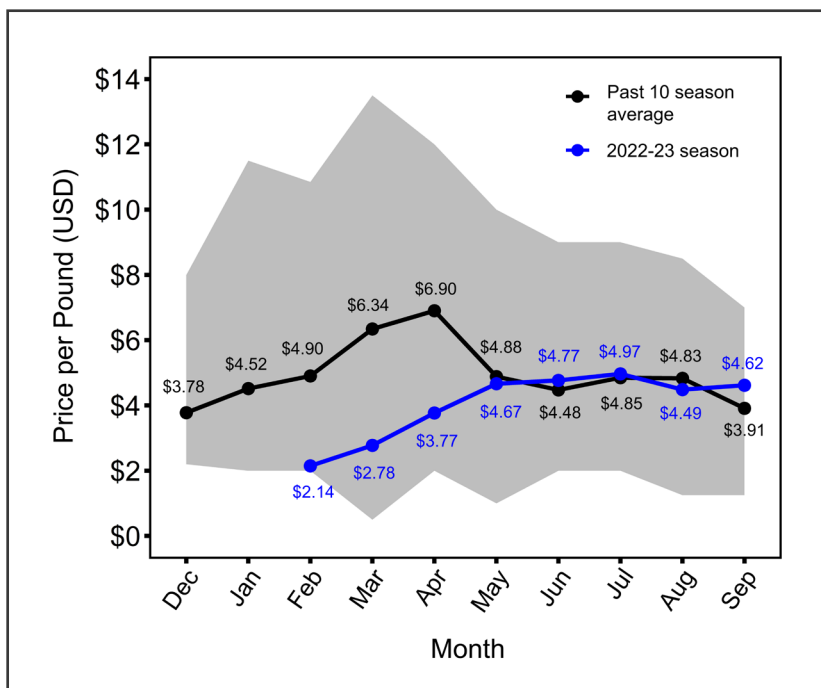


Figure 3. Average price per pound for each month of a season. The average for the previous 10 seasons is in black, and the 2022-23 season average is in blue. Shading indicates historical minimum and maximum price within a given month.

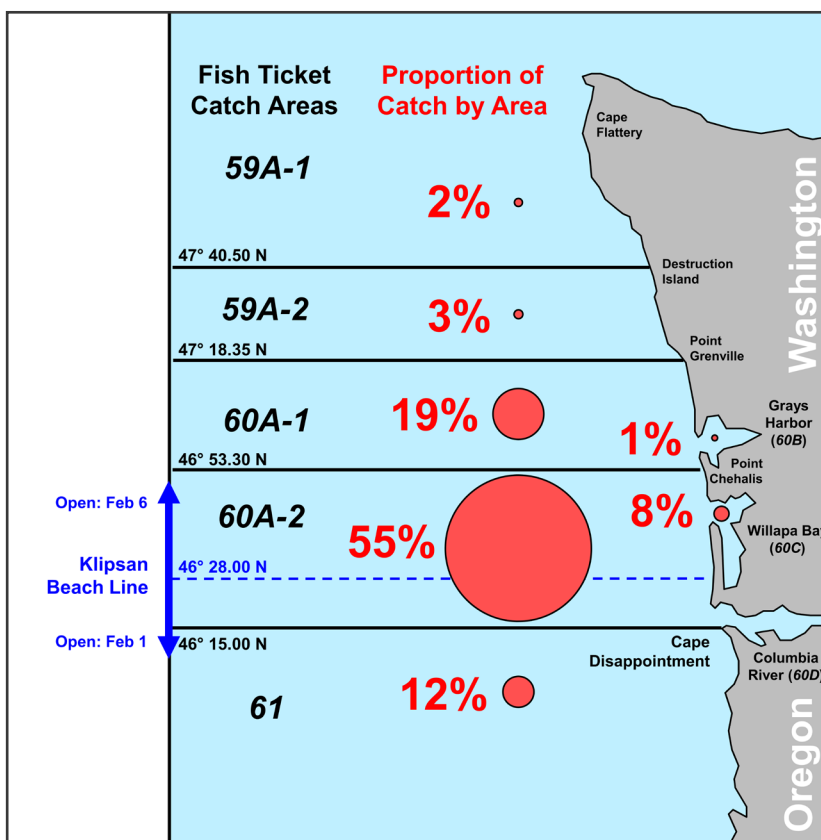


Figure 4. Proportion of coastal state landings for the 2022-23 season by fish ticket catch area. The Klipsan Beach line marks the division between the southern and northern openers.

Coastal crab co-management

Each year, the Washington Department of Fish and Wildlife (WDFW) works with the Hoh Tribe, Makah Tribe, Quileute Tribe, and Quinault Indian Nation (QIN) to develop harvest management agreements for the upcoming season. These agreements include provisions such as head starts for the smaller tribal fleets and special management areas (SMA) that are closed to state fishers. Historical catch has shown that in years of high abundance, the state fleet can catch more than 50% of the harvest; alternatively, in years of low abundance, the state fleet can struggle to catch 50% by the end of the season.

WDFW worked with each tribe to finalize harvest management agreements for the 2022-23 season. A summary of co-management actions is included below.

Hoh Tribe

The 2022-23 season marked the first time that WDFW entered into a management agreement with the Hoh Tribe. The Hoh had one vessel participate in the fishery and made landings in catch area 59A-1 (Figure 4).

Makah Tribe

The 2022-23 Makah-state agreement included an SMA that was in place from Tatoosh Island to Norwegian Memorial (approximately midway between Cape Alava and La Push). A pot limit was implemented when the SMA opened to state fishers on March 5. Crab abundance has been sporadic in the Makah usual and accustomed (U&A) fishing areas in recent years, affecting Makah participation.

Quileute Tribe

The 2022-23 Quileute-state agreement allowed for the area north of Destruction Island to open to state fishers on Jan. 15. Per the agreement, the area could open at a later date if the Quileute fleet did not have 20 fishable days prior to Jan. 15. Quileute and state managers evaluated fishable days and found that the 20-day target was met. However, WDFW delayed the opening to Feb. 6 to align with the north of Klipsan opener.

Quinault Indian Nation

The 2022-23 Quinault-state agreement resulted in a 47-day head start for QIN fishers in the area between Point Chehalis and Destruction Island. This provision, along with an SMA closed to the state fleet, facilitates sharing. Early catch by the Quinault fleet provides a proxy for crab abundance that is used to determine the number of head-start days on a sliding scale.

On April 10, WDFW managers expanded the size of the SMA by more than 16% when early season catch confirmed a high abundance of crab. The revised SMA remained in place through the end of the season. An unprecedented pot limit reduction of 40% was also implemented May 1 and remained in place until the end of the season.

2023-24 test fishery summary

WDFW conducts test fishing to determine the percentage of meat recovered from Dungeness crab starting in late October. The Department follows tri-state pre-season testing protocols and enlists the help of contracted coastal commercial crab vessels to complete tests. Northern (Westport) and southern (Long Beach) stations (Figure 5) are repeatedly sampled until a meat pick-out percentage of 23% is obtained.

Test fishing results are available at psmfc.org/crab.



2023 Preseason Coastal Dungeness Crab Test Fishery Results for WA, OR and CA
qrcodes.pro/r6rC23

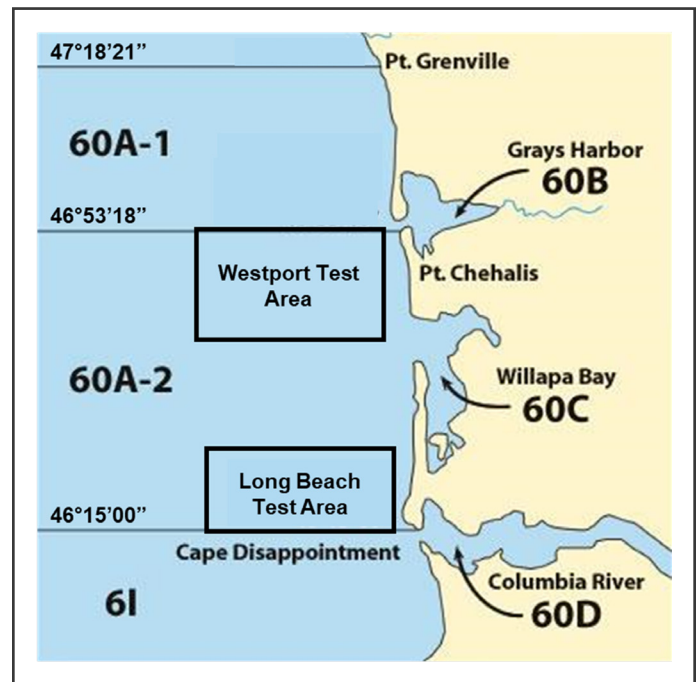


Figure 5. Location of northern and southern test fishery stations.

2023-24 season rule changes

The Washington Fish and Wildlife Commission approved several amendments pertaining to the Washington coastal crab fishery that went into effect Dec. 1. The section referring to electronic monitoring (EM) has a delayed effective date of Jan. 1 at the request of WDFW staff. Non-administrative changes include amendments to rules regarding electronic monitoring, logbook requirements, line marking requirements, and buoy color. Requirements of each change as pertaining to the Washington coastal Dungeness crab fishery are included below.

Electronic monitoring (WAC 220-340-420)

New rules pertaining to EM allow WDFW to collect spatial and temporal fishing data from vessels participating in the Washington coastal Dungeness crab fishery. EM is a tool that enables the collection of more accurate and timely fishing information and stands to improve WDFW's ability to ensure fishing is not occurring within closed areas. In addition to enforcing area boundaries, WDFW police can use EM data to confirm that fishery participants are not fishing prior to the opening of the season and are adhering to license-based or seasonal pot limits. EM data may also aid in identifying instances of gear tampering.

Logbook requirements (WAC 220-340-030)

Vessels participating in the Washington coastal commercial crab fishery with a working EM system are no longer required to submit logbooks. In the event of an EM system failure, fishers are required to request an EM exemption permit from WDFW and submit logbooks for the duration of the failure.

Line marking requirements (WAC 220-340-430; WAC 220-340-510)

Existing line marking requirements state that line must be marked by 12 inches of red in two places. New rules adopted this year clarify that this **12-inch span of red must be continuous**. Lines may be marked by a variety of methods; examples include, but are not limited to, the use of solid red line, paint, or by interweaving red line into line of another color (Figure 6). Marking line with zip ties or other implements at regular intervals does not fulfill this requirement. The use of line marks or color combinations in Washington fixed gear fisheries that are required for other state or federal fisheries is prohibited.

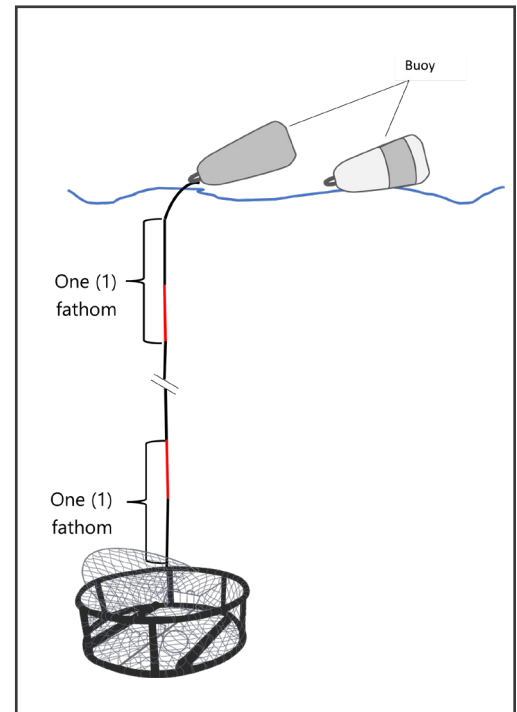


Figure 6. Coastal Dungeness crab fishery gear line marking requirement.

Electronic fish ticket reporting (WAC 220-352-060)

For deliveries completed on a mobile device, original receivers must fill out an electronic fish ticket form at the delivery location and submit it immediately following the delivery before transporting the catch. In the event of a cellular or broadband outage or lack of service at the delivery site, the original receiver must submit the ticket immediately upon regaining access to a cellular or broadband connection following the completion of the delivery.

Buoy color and registration (WAC 220-340-430)

New rules require buoys in the Puget Sound and coastal commercial crab fisheries to not be both red and white unless at least 30% of the buoy is marked in additional color(s). Buoy colors must be registered annually. These changes are consistent with the intent to attribute gear involved in marine mammal entanglements to a specific fishery.



Register buoy colors
using this online form:
qrcodes.pro/jDEArX

Electronic monitoring (EM) updates

A new section has been added to the WDFW website regarding EM in the coastal Dungeness crab fishery. Here you can find EM rule language, a compliance guide, and forms. Visit wdfw.wa.gov/fishing/commercial/crab/coastal for more information.

WDFW has procured enough EM systems for all vessels designated on a coastal Dungeness crab license for the 2023-24 season. Shipping began in early November. If you intend to participate in the 2023-24 Dungeness crab fishery and do not yet have an EM system, please fill out an application on the above webpage or email: Coastal.Crab.EM@dfw.wa.gov.

EM program staff continue to test EM systems with video capability and will provide additional updates on the feasibility of using such systems in the coastal Dungeness crab fishery.

Starting Jan. 1, 2024, all vessels participating in the coastal Dungeness crab fishery will be required to have an operational EM system.

You have received a FishVue LIME system from Archipelago. What do you do next?

Instructions on how to install the LIME system and subscribe to a data plan will be included with the shipment.

Once the system is installed, go to the online store to subscribe to a data plan by scanning the QR code included in the box or visiting archipelago.ca/fishvuelime-help.



Submit an activation report to WDFW. Activation reports can be found at qr.codes.pro/TjjpSD.

You're ready to participate in the coastal Dungeness crab fishery! WDFW will provide confirmation that the unit is transmitting data after receiving the activation report.



Summer fishery sampling



The Summer Fishery Management Plan provides protection for soft-shell crab during the peak male recruitment molt period when they are more susceptible to handling mortality.

Provisions of the Summer Fishery Management Plan, including a 2,500-pound weekly landing limit, are in effect from the first Sunday in July through Sept. 15. During this period, WDFW conducts crab condition tests via dockside samples, as well as ride along trips with consenting commercial fishers.

A 50% soft-shell limit is used to determine whether to impose enhanced landing limits to protect the resource from handling mortality. Shell condition tests collected this summer during ride along trips remained below the 50% threshold for soft-shell crab (Figure 7). Therefore, the 2,500-pound weekly landing limit remained in place through the end of the season.

Derelict gear recovery

WDFW issued 54 permits to crabbers interested in recovering gear in coastal waters, including the Columbia River, Willapa Bay, and Grays Harbor, from May 1 through Oct. 31. In-season gear recovery continues to be successful in removing derelict gear earlier in the year to help reduce the risk of whale entanglements. Of the 54 permits issued this year, 37 crabbers recovered gear. A total of 1,086 pots were recovered in 2023 – 96% percent of them during the in-season gear recovery period (Figure 8).

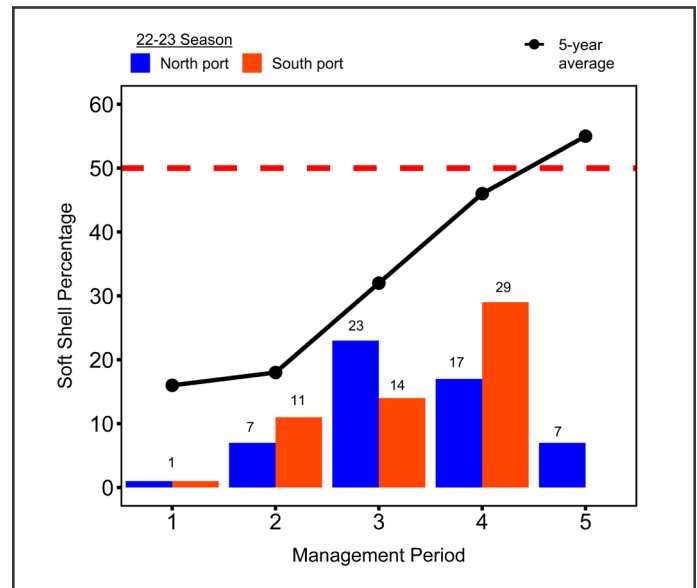


Figure 7. Percentage of soft-shell crab sampled during the 2023 summer fishery ride along trips compared to the five-year average. Two-week management periods begin the first Sunday in July. Two ride along trips are conducted during each management period: one out of a south port and one out of a north port.

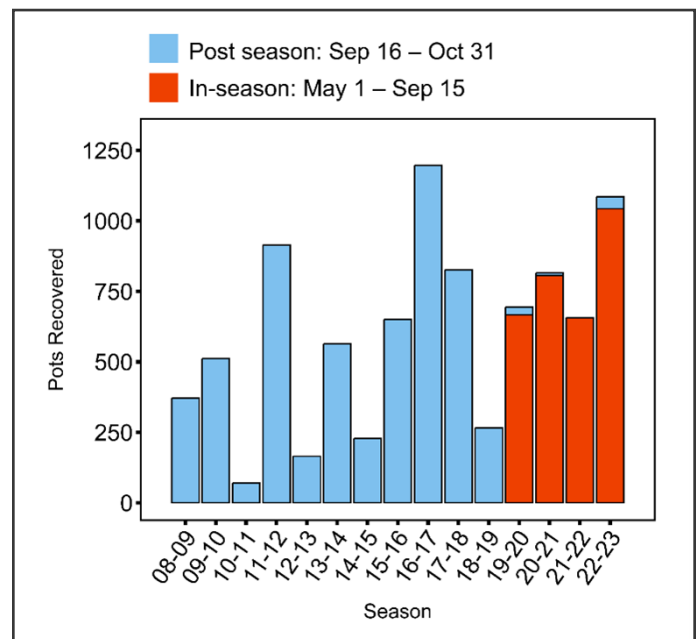


Figure 8. Derelict gear recovery, number of pots per year, 2009-23.

Derelict Gear Recovery Program Permit: To apply for a permit, email Jamie.Fuller@dfw.wa.gov or call 360-580-0875.

Whale entanglements and conservation efforts

Entanglement with fishing gear can be dangerous for whales and sea turtles. Under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA), these animals have been granted federal protections that define the impact fisheries can have on these species, while also outlining processes to reduce impacts. Entanglements in fishing gear on the West Coast peaked from 2015-18. Though reported entanglements have since decreased, they continued to remain higher than 2014 levels (Figure 9).

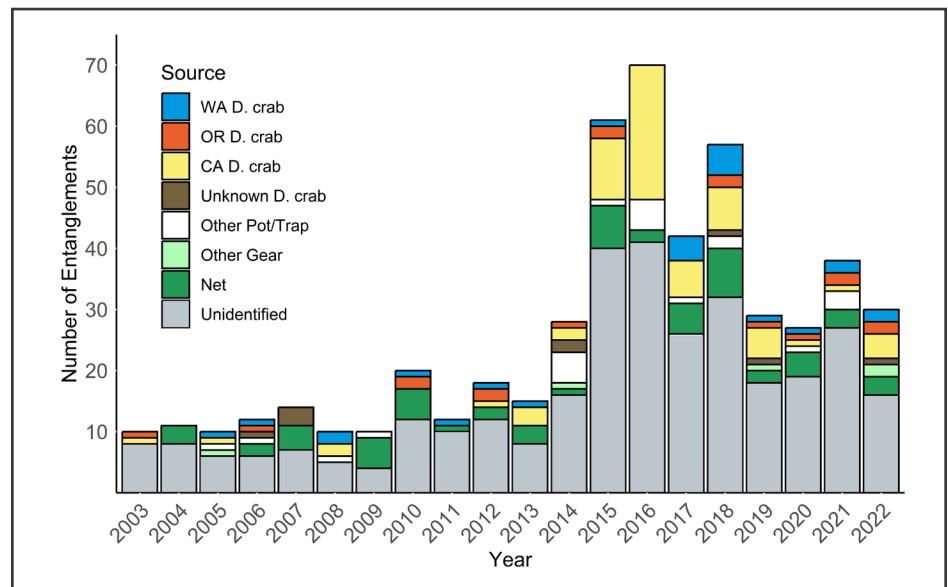


Figure 9. Number of confirmed entanglements each year by the identified source of entanglement on the West Coast from 2003-22 (D. crab = Dungeness crab).

Commercial Dungeness crab gear makes up the largest portion of identifiable gear in entanglements. However, over 60% of entanglements are in gear that cannot be identified. To bring the Washington coastal Dungeness crab fishery into compliance with federal regulations, WDFW is developing a conservation plan, which includes measures the Department is taking to reduce and monitor the entanglement risk in the fishery.

WDFW actions

The Washington Whale Entanglement Working Group developed a “Directive to minimize whale entanglement risk in commercial Dungeness crab fishing” in 2018. It can be found at grcodes.pro/vQrutK.

Reducing entanglement risk

WDFW limits the amount of gear and line in the water in the spring and summer, when whales are known to feed off of the Washington coast. Since the 2020 season, the Department has imposed a one-third pot limit reduction (**WAC 220-340-480**) and expanded the derelict gear recovery program into the summer management period. Crab pots must use only the amount of line necessary for the tides, currents, and weather (**WAC 220-340-430**); this requirement ensures that lines remain taut and vertical, reducing the risk of entanglement. New rules adopted in 2023 expanded this guideline to other shellfish and pot fisheries in the state.

Improving gear identification

Currently, more than 60% of entanglements involve unidentified gear, making it challenging to identify where the problem is occurring and respond with targeted management actions. WDFW began requiring line marking in the coastal Dungeness crab fishery in 2020. The rule requires at least 12 inches of line to be marked in red in two places: the first no more than one fathom from the main buoy, and the second no more than one fathom from the pot (**WAC 220-340-430**). The line-marking rules were **updated in 2023** to indicate that the red line marking needs to be **continuous** to increase visibility of the line marks. The updated rules prohibit the use of line marking and color combinations required for other state or federal fisheries to ensure marking for this fishery is unique and will not appear in other fisheries.

How you can help

- ▶ Remove any fishing gear you are not actively tending during the season and have all gear out of the water by the end of the season (required by law **WAC 220-340-480**).
- ▶ Minimize scope. Use only the amount of line necessary to compensate for tides, currents, and weather (required by law **WAC 220-340-430**).
- ▶ Minimize excess line to avoid floating line at the surface. Floating line should be as limited as practical between the main buoy and trailer buoy(s).
- ▶ When changing set location across depths, adjust the length of pot lines by adjusting shots (i.e., measured length of line) to maintain the minimum amount of scope necessary to compensate for the currents and tides.
- ▶ Avoid setting gear in the vicinity of whales when possible. Communicate the locations of high whale activity with other fishers.
- ▶ Minimize knots and splices which can get caught up in the baleen.

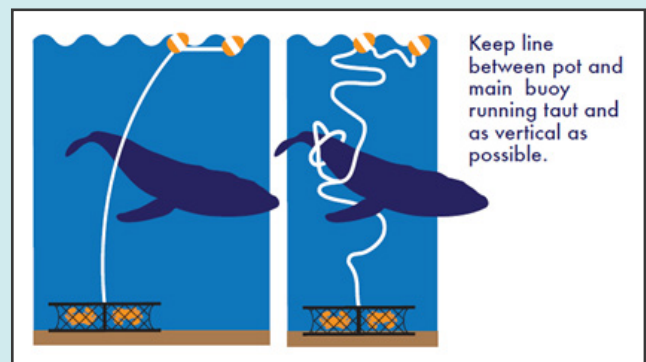


Figure 10. How line requirements can reduce entanglement risk.

What's next?

In 2024, WDFW will be digging into coordinated line-marking efforts with state and federal managers on the West Coast and moving forward with the conservation plan.

Conservation plan and incidental take permit

WDFW is developing the Washington Coastal Dungeness Crab Conservation Plan to bring the fishery into compliance with federal regulations and apply for an incidental take permit. The conservation plan represents a long-term strategy for managing the fishery to reduce the risk of marine life entanglements in alignment with WDFW's mission. The Department began formulating the conservation plan in 2019 and intends to submit a draft to the National Oceanic and Atmospheric Administration (NOAA) for review in 2024.

West Coast coordinated line marking

Results from the National Marine Fisheries Service (NMFS) line-marking analysis highlight the need for gear to include multiple large marks to improve visibility and identification for state and federal fisheries. Fishery managers are still working to develop a gear marking schema for the West Coast Dungeness crab fisheries and coordinate with federal and state partners for line marking requirements in other fisheries off the West Coast. Improved gear marking is necessary for managers to accurately attribute entanglements to a fishery – and, in some cases, rule out Washington coastal Dungeness crab gear.

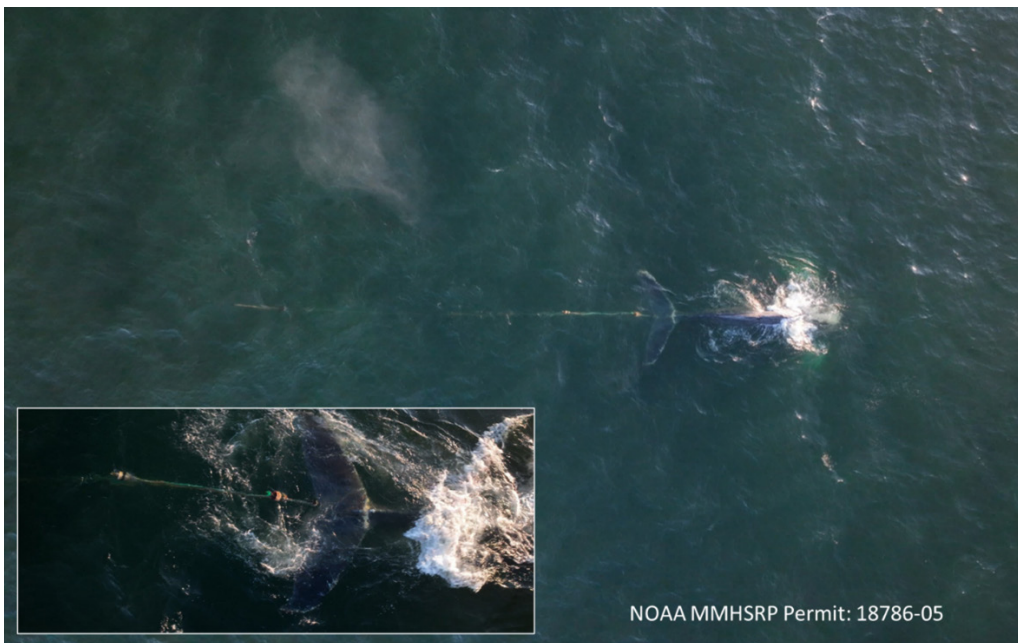
WDFW will be working with our partners on developing an improved line marking schema and plan for the West Coast that meets NOAA requirements and will reach out to the industry in 2024.

WDFW is not recommending crabbers purchase any particular line color at this time. No decisions about future line marking requirements have been made.

Recent whale entanglements in Washington fisheries

A humpback whale entangled in Washington coastal Dungeness crab fishing gear was documented off Depoe Bay, OR, on July 12. The buoy tag shape and color connected the gear to the fishery and showed it was from the 2022-23 season. WDFW was unable to determine if the gear was set during the summer management period or the standard management season. No rescue efforts were initiated and no other sightings have been reported.

Within Puget Sound, two entanglements of transient killer whales in Dungeness crab fishing gear were documented during the summer. One of these entanglements was identified as recreational gear. Both whales were able to release themselves.



A humpback whale was reported as entangled on July 17 off the Columbia River with multiple gear types that are still under review by NMFS. A rescue team was able to free the whale of ground lines only, and no other sightings have been reported. A gray whale was reported as entangled on Sept. 4 in unidentified fishing gear.

Photo by NOAA of a humpback whale entangled in a Washington coastal Dungeness crab fishery in July.

Recreational crabbing



WDFW has a newly formed Coastal Recreational Crab Monitoring Program based in the Coastal Region office in Montesano and the Willapa Bay Field Station in Ocean Park. Team members are working to develop enhanced monitoring and field activities for coastal crab spanning from Neah Bay to the Columbia River, including Grays Harbor and Willapa Bay. This summer, they began sampling at crabbing access sites, boat launches, beaches, docks, and piers along the outer coast by collecting data on crab catch and fishing effort. The goal of this program is to estimate crabbing effort and harvest along the Washington coast.

More information is available in this August 2023 WDFW blog post: qrcodes.pro/OT7kYc

Commercial vessels participating in the recreational crab fishery are required to cooperate with data collection or other shellfish sampling upon request of WDFW personnel (**RCW 77.12.071**).

Enforcement update



Sgt. Dielman and Officers Ariss and Garrison conducted a 2 a.m. boat patrol prior to the south of Klipsan commercial crab season opener to ensure a fair start.

The mission of the WDFW Enforcement Program is to protect Washington's natural resources and the public. During the 2022-23 coastal Dungeness crab fishery, WDFW enforcement officers demonstrated a robust commitment to this mission through the enforcement of rules and management regulations designed to afford all fishers an equitable opportunity to harvest their share of healthy crab.

Enforcement actions this season focused on common

issues observed within the fishery, including retention of undersized crab, incorrect use of tags, and fishing in a restricted area. Below are representative cases from this management season.

Retention of undersized crab

Sgt. Alexander observed the captain and deckhand of a commercial crab vessel carrying a large plastic trash can. When asked if the can contained crab, the captain claimed the container was only filled with gear. Upon inspection, Sgt. Alexander found that the can contained 30 crabs, including 23 below the minimum size of 6 ¼ inches. The Washington coastal Dungeness crab fishery is managed using the 3-S system, meaning access to crab is limited by crab size, sex, and the season. The captain was cited for undersize commercial crab and failure to submit to a law enforcement officer.

Officer Dean checked a commercial crab offload in Westport and observed 12 undersized crabs upon inspection of the top layer of crab in the first tote. Further investigation revealed many more undersized crabs. Sgt. Alexander and Officers Baldwin and McOmber helped Officer Dean measure the reported 10,000 offload. Seven of 11 totes were sampled, yielding an average of approximately 10% undersized crab for the offload. The captain and three deckhands were cited for unlawful commercial fishing.

Officer Jacobson patrolled commercial crab offloads, finding one vessel with over 7% undersized crab in a load of 3,500 pounds. WDFW Police seized 200 undersized crabs, weighing 273 pounds and valued at \$1,095. The captain and crew were cited.

Incorrect use of tags

Officers received report this summer of a commercial crab fishing vessel whose pots remained in the water with fall tags. Sgt. Alexander spoke with the captain, who claimed to have replaced most of his summer tags. Officer Baldwin coordinated with the U.S. Coast Guard, which transported Officers Baldwin and McOmber to the vessel. Officers boarded, and the



WDFW enforcement officers measure crabs to ensure compliance with size restrictions.



Sgt. Alexander and Officer Garrison with illegally placed crab pots.

captain admitted that at the start of the summer season, none of his crab gear was properly tagged. He also admitted to having too many pots in the water for the area where he was fishing. Charges were filed for the violations.

Fishing in a restricted area

Sgts. Alexander and Dielman and Officers Dean and Garrison conducted a boat patrol of an area north of Westport closed to state commercial crab fishers. They seized 23 commercial crab pots and contacted the suspect, who claimed to have a poor understanding of his GPS unit. The crab gear had been run the day prior, even though the area had been closed for three days. Charges were referred to the prosecutor's office.

Sgt. Dielman received information regarding a commercial crab vessel with gear in an area closed to that vessel north of Klipsan. The following day, Sgts. Alexander and Dielman and Officer Dean attempted to locate the gear and suspect vessel. Despite adverse weather conditions, they were able to locate and seize 12 pots and make contact with the vessel, which was actively fishing in illegal waters. The captain and crew said they were unaware they were in closed waters, and enforcement officers seized roughly 5,000 pounds of crab.

Introducing WDFW's new coastal shellfish manager



It is with great excitement that we announce Matthew George, Ph.D., has joined WDFW as Coastal Shellfish Manager. Matt holds bachelor's and doctorate degrees in biology from Gonzaga University and the University of Washington and brings over a decade of expertise in shellfish physiology, genetics, ecology, and mathematical modeling.

As a research scientist in the University of Washington's School of Aquatic and Fishery Sciences, Matt has experience developing collaborative partnerships with government, commercial, and tribal partners, including shellfish growers operating in Puget Sound and Willapa Bay. His previous work explored the impact of ocean acidification, marine heatwaves, and other climate-driven stressors on a variety of shellfish, including several mussel, oyster, and crab species. Matt's work has been featured in a number of publications, garnering

him recognition by the National Shellfisheries Association in 2020.

Outside of his professional pursuits, Matt is an avid outdoor enthusiast who enjoys hiking, kayaking, and camping with his family. He is based out of the Coastal Region office in Montesano. We encourage everyone to stop by and extend a warm welcome!

Stay up-to-date

Many changes occur each season in the Washington coastal crab fishery. These may include updates to SMA boundaries or dates, issues with marine toxins, pot limit changes, and marine mammal concerns. WDFW communicates these changes using a variety of methods, including distributing emergency regulations by mail using the address on your license application. We also have a coastal crab email distribution list and a no-reply text system.

Sign up for our email and text lists by sending your name, email address, and cellphone number to: **Jamie.Fuller@dfw.wa.gov** or 360-580-0875. You may also include members of your crew.

Agency contact information

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Coastal commercial
Dungeness crab fishery
**[wdfw.wa.gov/fishing/
commercial/crab/coastal](https://wdfw.wa.gov/fishing/commercial/crab/coastal)**



WDFW's new Crab Washington sticker and logo is available by request for use at festivals, events, and other outreach opportunities. Please contact TeamMontesano@dfw.wa.gov.

WDFW Values

- ▶ **Accountability:** We hold ourselves and each other responsible for acting consistent with our values and mission.
- ▶ **Service:** We add value to Washington communities and seek to improve the public's experience.
- ▶ **Professionalism:** We serve in a manner that reflects positively on the Department and on ourselves.
- ▶ **Integrity:** We are consistently open, honest, ethical, and genuine in our actions.
- ▶ **Respect:** We treat each other with dignity.
- ▶ **Empathy:** We take time to understand and appreciate others.

WD
FW



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