

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE REPORT ON HUMPBACK WHALE ENDANGERED SPECIES ACT CONSULTATION

The Washington Department of Fish and Wildlife (WDFW) reviewed the Endangered Species Act Section (ESA) 7(a)(2) Biological and Conference Opinion on the continuing operation of the Pacific Coast Groundfish Fishery - Humpback whale (*Megaptera novaeangliae*), ([Agenda Item F.2, Attachment 2, April 2021](#)) and the Groundfish Endangered Species Workgroup report ([Agenda Item F.2., Attachment 1, April 2021](#)). WDFW is in the process of developing a conservation plan for the state-managed coastal commercial Dungeness crab fishery necessary to apply for an incidental take permit (ITP) from the National Marine Fisheries Service (NMFS) under Section 10 of the ESA. WDFW has already implemented management measures to reduce the risk of entanglements from the commercial Dungeness crab fishery on marine species listed under the ESA and protected by the Marine Mammal Protection Act (MMPA).

Below is a summary of management measures recently adopted by the Washington Fish and Wildlife Commission specifically to reduce entanglement risk and management measures previously implemented to support long-term stability and sustainability of state-managed fisheries. This informational report is intended to help inform discussions on the terms and conditions necessary to implement the reasonable and prudent measures (RPMs) (50 CFR 402.14) for the Pacific Coast Groundfish Fishery.

New requirements for coastal commercial Dungeness crab

Line marking specific to Washington coastal crab gear:

Effective December 1, 2020 and year-round after that, line connecting the Dungeness crab pot to the main buoy is required to be marked with 12 inches of red in at least two places – at the top near the buoy and at the bottom near the pot ([WAC 220-340-430\(6\)\(b\)\(i\) and \(ii\)](#)). The purpose of this rule is to identify gear from the Washington coastal commercial Dungeness crab fishery and improve entanglement reporting. However, as other West Coast Dungeness crab fisheries and pot fisheries consider line marking requirements, it's important to note that the benefit of using line marking to link entanglements to specific fisheries is only realized if the specific marking that is required for one fishery is not also practiced in other fisheries. To support that concept, in 2020, the Oregon Department of Fish and Wildlife adopted regulations that prohibit the use of red marking (or any line marking required for any other West Coast fishery) on lines used in the Oregon commercial Dungeness crab fishery ([OAR 635-005-0480\(3\)](#)).

Reduced pot limit and summer buoy tags:

Effective May 1, 2020 and each May 1 after that, license owners are subject to reduced pot limits and must obtain summer buoy tags to participate in the coastal commercial Dungeness crab fishery through the end of the season on September 15th ([WAC 220-340-480\(5\)\(a\) and \(b\)](#)). This rule reduces the amount of crab gear in the water during the time when endangered humpback whales are more prevalent off the Washington coast. The summer buoy tag requirement serves two

purposes: it ensures compliance with the reduced pot limit, and it expands the annual gear recovery period first established in 2009 by allowing WDFW to issue permits for recovery of gear not marked with summer buoy tags as early as May 1 rather than after the end of the season.

Replacement tag allowance:

These tags are typically attached to new gear during the season to allow fishers to continue fishing their entire limit of pots despite occasional gear loss due to weather, vessel traffic, or other circumstances. 2020 regulation changes reduce the risk of entanglement by reducing the number of replacement tags allowed by 60-63 percent after May 1, a critical time when entanglements off Washington have historically occurred ([WAC 220-340-430](#)). The Department is considering additional rule changes that will expand on this precedent by removing the program altogether starting with the 2021-2022 crab season. From 2013-2019, an average of 716 replacement tags were issued each year. Removing the replacement tag program would result in an expected average vertical line reduction of 716 per year off the coast of Washington during critical summer months (contingent on fishery participation).

Use only the amount of line necessary:

Effective March 3, 2020, license owners must use only the amount of line necessary to compensate for ocean conditions ([WAC 220-340-430 \(6\)\(a\)](#)). This rule implements “Best Practices” guidelines and is intended to reduce the amount of slack line at the surface that may pose a risk of entangling whales.

Other gear marking requirements:

Every shellfish pot, ring net, or star trap left unattended in Washington waters must have its own buoy line and a separate buoy. Each shellfish pot must have a durable, nonbiodegradable tag securely attached to the pot that is permanently and legibly marked with the operator’s first name, license number and telephone number ([WAC 220-340-430 \(2\)](#)).

Coastal commercial Dungeness crab:

Buoy tags: Since 2009, all licensed coastal commercial crab fishery participants have been required to secure Department-issued tags onto the end of the first buoy on each of their crab pots ([WAC 220-340-430](#)). At the start of each season, unique numbered buoy tags are issued to each license holder. Each tag lists the season, license number and individual tag numbers, 1-300 for a license with an assigned 300 pot limit and 1-500 for a license with an assigned 500 pot limit. The primary purpose of buoy tags is to provide WDFW enforcement officers with a way to enforce pot limits without counting each individual pot. Other commercial Dungeness fisheries along the US West Coast similarly require buoy tags, and the color and shape of these tags are coordinated among these fisheries coastwide so that, when an entanglement occurs where the buoy tag is visible (from photos or from first-hand observations), the gear in which the animal is entangled can be identified down to the level of the fishery. In 2020, WDFW (both coastal and Puget Sound fisheries) ODFW and CDFW agreed on one standard shape per fishery, with each fishery having different colors for different pot limits and for summer periods. Also, in 2020, WDFW began ordering buoy tags for

the coastal commercial crab fishery with information printed on both sides. Historically, photographs of entangled whales that display a buoy tag only showed fishery identification information when the tag was oriented a specific way. Printing on both sides will increase the likelihood that photographs of entangled animals will contain fishery identification information by allowing multiple orientations of buoy tags that maintain visibility.

Buoy colors and brands: Each fisher licensed for the commercial harvest of crab off the coast of Washington is also required to use a unique buoy brand and color scheme for all of their buoys such that coastal crab pot gear can be easily and reliably identified from the surface of the water as the property of that specific license holder ([WAC 220-340-430\(5c\)](#)). This rule, in place since 2004, requires all coastal commercial crab license holders to register their unique buoy brands and buoy color schemes with the Department. To maintain an accurate up-to-date registry, WDFW staff take photographs of licensed buoys and associated vessels participating in the fishery at the start of each season. Photos are compiled and stored in a WDFW database. When an entanglement interaction occurs with crab pot gear where the buoy(s) are still attached and visible (from photos or from first-hand observation), if the gear belongs to a Washington coastal crab fisher, it is thus identifiable down to the level of the individual fisher. This provides the WDFW an opportunity to collect additional information from the fisher on the location and configuration of their set gear. This may prove vital to informing future entanglement risk assessments or filling other critical information gaps.

Gear tending requirement:

Beginning May 1, through September 15, it is unlawful to leave Dungeness crab pots deployed in Grays Harbor, Willapa Bay, Columbia River, or waters of the Pacific Ocean adjacent to the state of Washington for more than 21 consecutive days without making a Dungeness crab landing ([WAC 220-340-480 \(1\)\(e\)](#)) reducing entanglement risk for gear that is not regularly being fished.

Recreational crab:

All crab gear must be marked with a buoy that permanently, visibly, and legibly lists the first and last name and permanent mailing address of the owner. All crab buoys must be half red and half white in color, and both colors need to be visible when fishing ([WAC 220-330-020 \(3\)\(a\)\(i\)](#) and [\(9\)\(a\)](#)).

Spot prawn:

In the Puget Sound, buoys affixed to commercial shrimp gear must be orange in color ([WAC 220-340-520 \(2\)\(a\)](#)). In the ocean, no specified buoy color is required for commercial shrimp gear. However, the following gear requirements are in place for the coastal spot prawn fishery: set line end marker buoys must be floating and visible on the surface of the water, equipped with a pole, flag, radar reflector, and operating light, and marked with the clear identification of the license holder and the vessel designated on the coastal spot shrimp pot license ([WAC 220-340-510 \(5\)\(c\)](#)). All recreational shrimp pot buoys must be yellow in color ([WAC 220-330-020 \(10\)\(a\)](#)).

Hagfish:

WDFW manages a trial commercial hagfish pot fishery in the Pacific Ocean at depths greater than 50 fathoms. Hagfish pot gear must be buoyed. Marker buoys must be floating and visible on the surface of the water, equipped with a pole, flag, radar reflector and operating light, and marked with the clear identification of the permittee. If ground lines are used, ground line end marker buoys must display the number of pots on the ground line ([WAC 220-360-220](#)).

Electronic monitoring:

Paper logbooks have been required in the Washington coastal commercial Dungeness crab fishery since 2006 ([WAC 220-340-460](#)) to collect valuable fishery effort and location information routinely utilized by managers. WDFW is currently testing electronic monitoring (EM) for the fishery as an improved fishery monitoring tool through a pilot project funded by the National Fish and Wildlife Foundation. This tool will both improve the precision and accuracy of fisher-reported data and reduce the record-keeping burden on the fleet. WDFW has committed to fleetwide implementation of EM, including near-real time location data on fishing activity, by the start of the 2025-2026 fishing season.

An EM program implemented fleetwide may also reduce derelict Dungeness crab pot gear by providing the last known location of fishing gear, making it easier to retrieve it prior to the gear recovery period, and therefore less likely for it to entangle a whale. EM data will help WDFW continue to assess potential measures to further reduce entanglements in the coastal Dungeness crab fishery (e.g., reduced pot limits, time, and area closures).

One way to track more potential entanglement events occurring in fishery gear is to monitor the location of each pot deployed in the ocean in real time. The EM program currently being piloted does not fully achieve this, but additional technology under development for fixed gear fisheries may provide an avenue for this in the future. This technology is referred to as “smart buoys,” and these have the capability of transmitting GPS location via satellite in real time while at or near the surface of the water. Fine-scale movement patterns associated with gear loss attributable to weather events, vessel traffic, and marine life entanglements are all thought to yield different signatures, and all of these can be detected and tracked using existing technology that is included in “smart buoys.” However, the current cost of this technology renders it infeasible for broad adoption at this time. The Department remains engaged in the current development and trial use of this technology and other gear innovations until such time as they may become feasible for fleetwide adoption without compromising socioeconomic fishery management goals.