

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

The California Department of Fish and Wildlife (CDFW) provides background information and status updates on activities in state managed fisheries as it relates to Terms and Conditions 1 and 4 of the Humpback Whale Endangered Species Act Consultation.

### **Background**

Senate Bill 1309 (SB 1309; Fisheries Omnibus Bill of 2018, McGuire) amended several sections in the California Fish and Game Code that resulted in changes to commercial fisheries management in the State of California, particularly for the Dungeness crab fishery. Among the changes, SB 1309 gave the CDFW Director authority to restrict the commercial take of Dungeness crab when there is a significant risk of marine life entanglement. This legislation also authorized CDFW to implement regulations requiring standardization of commercial fishing gear marking to aid with identifying the commercial fishery responsible for marine life entanglements. Additionally, it established a trap gear retrieval program to reduce lost and abandoned commercial Dungeness crab gear at the end of the season to reduce entanglement risk. Implementation of these new programs has established California as a leader on the west coast in addressing marine life entanglements.

In order to prevent marine life entanglements, it is important to know how they occurred and by what fishery. Oftentimes when a whale is entangled there are few details available to inform what fishery, where, and when an entanglement occurred. Forensic review of entanglements has revealed that better gear marking is essential to better identifying the responsible fishery.

The most common gear seen on and recovered from marine mammals are buoys and line. Because there are very few buoy and line standards for fisheries, it is almost impossible to tell fisheries apart. The discussion below describes the options that CDFW has considered, evaluated or implemented to date, which may be useful as NOAA Fisheries proceeds with the Feasibility Study required by Term and Condition 1 of the Incidental Take Statement.

### **Pot Gear Marking Feasibility Study Options Considered in California**

#### *Line Marking*

Requiring fisheries to use unique line marking could help forensic reviewers identify the source fishery in the absence of other identifying information. CDFW has contemplated state-imposed line marking requirements, but at this time has not proceeded with establishing any such requirements. During discussions at recent Tri-State Dungeness Crab meetings, several challenges were identified to implementing state specific line marking. Generally, those challenges included specifying unique state-specific colors, visibility of line marking in the water, ability of line marking to withstand rigors of the marine environment, and cost to fishery participants. Additionally, questions were raised about line marking for dually permitted individuals who participate in the Dungeness crab fishery in multiple states as well as other state managed fisheries.

*Buoy Marking - Standardized Commercial Marking Program (Gear Marking)*

CDFW’s conclusion from forensics review of entangled marine mammals was that buoys were the best and cheapest way to distinctly mark trap gear to a specific fishery. Implemented in May 2020, CDFW’s Gear Marking Program established a standardized framework for marking commercial fishing gear to better identify the commercial trap fishery involved in the event of a marine life entanglement. Identifying the fishery gear is essential in reducing entanglement risk, as it allows California to direct resources to those fisheries with the greatest contribution to entanglement.

Previously, California regulations and statutes required certain buoy identification numbers and markings for select trap fisheries. However, these rules were not uniform in what information was required, and often lacked specificity as to how the markings shall be placed on buoys. Additionally, several trap fisheries had no buoy marking requirements. Following CDFW’s evaluation of the requirements for effectiveness, cost and suitability, several regulatory additions were made to comprehensively address the need for gear marking.

Currently, nine California trap fisheries are subject to buoy marking requirements, as specified (Table 1). The rules now uniformly require that every trap or string of traps must be attached to at least one buoy that is marked with a number that identifies the operator of the trap, and/or the vessel it belongs to (Table 1). In most of these fisheries, every buoy must be marked on multiple sides with a letter that identifies the fishery that the gear belongs to.

Table 1. Buoy marking requirements in California commercial trap fisheries (132.1, 180.5, 180.6 Title 14, and FGC Section 9006)

<i>Fishery</i>	<i>Identification Number</i>	<i>Letter</i>
Dungeness Crab	Commercial License ID and Uniquely Identifiable Attached Buoy Tag	None
Hagfish	Commercial License ID and Vessel Registration Number	None
Sablefish	Commercial License ID	B
Lobster	Commercial License ID	P
Rock Crab	Commercial License ID	X
Tanner Crab	Vessel Registration Number	T
Spot Prawn	Commercial License ID	S
Coonstripe Shrimp	Commercial License ID	C
Nearshore Finfish	Commercial License ID	Z

*Surface Gear in the Commercial Dungeness Crab Fishery*

In 2018, a new regulation (Title 14, Section 132.6) was implemented in the commercial Dungeness crab fishery to reduce the amount of gear allowed to be used on the surface. No more than two trailer buoys shall be used at the surface, and there is a maximum allowable distance between the main buoy and the last trailer buoy, which can vary depending on the depth that a trap is deployed. The intent of this regulation is to reduce the amount of excess line and buoy gear at the surface which can entangle whales.

### *Buoy Tag Requirement in the Commercial Dungeness Crab Fishery*

Since 2013, the commercial Dungeness crab fishery has been managed under a trap limit program. This program caps the total number of traps used by the fishery and requires one main line per trap (no linking of multiple traps is allowed). Regulations require that every crab trap be marked with a surface buoy, and that a buoy tag containing the permit number and year must be affixed to the buoy which is attached by the main line to the trap that is fished. Buoy tags are color coded, and each state's tag has a unique shape that can aid in identification in the case of an entanglement.

### *Other Gear Types/Modifications*

CDFW supports development and testing of fishing gear modifications and innovations aimed at reducing the risk of entanglement with Dungeness crab fishing gear. CDFW is partnering with the California Ocean Protection Council and National Marine Sanctuary Foundation to test other gear types and gear modifications (e.g., weak links) aimed at reducing whale entanglements.

### *Recommendations*

CDFW has gained a deeper understanding of the needs and circumstances involved with considering line, buoy and buoy tag marking requirements. CDFW appreciates NMFS' interest in learning more from these endeavors as it undertakes the feasibility study to examine similar approaches for the sablefish fishery. CDFW notes that none of the requirements eliminate all uncertainty in determining the fishery of origin in the event of entanglement, though it appears that the growing combination of buoy marking, buoy tag and surface gear requirements across the landscape of state and federally-managed fisheries is beginning to lead to a successful reduction in the number of entanglements for which the fishery of origin remains unidentified.

As part of the feasibility study, or possibly as future conservation measures, CDFW also encourages NMFS to consider soak time requirements and a trap limit program among those measures to be evaluated to reduce entanglements. CDFW notes that off California a 96-hour statutory servicing requirement applies to most trap fisheries, and in combination with trap limit programs has helped to prevent the use of excessive volumes of gear used in California-based trap fisheries, as vessels/fishers can physically service only a finite amount of gear within the established service interval.

### **Term and Condition 4 - Electronic Monitoring**

Starting in 2023, all vessels participating in the California commercial Dungeness crab fishery are required to have a vessel tracking device on board. This requirement is intended in part to provide near real time information on the location of the fleet/gear, and combined with data on whale locations can help inform entanglement risk. CDFW believes knowing when and where the fleet is fishing in relation to whales is one of the most important factors to minimizing entanglement risk.

CDFW is prepared to offer more information on our electronic monitoring program to the Council or NMFS at the appropriate time, as Term and Condition 4 developments proceed.