



# California Department of Fish and Wildlife Final Assessment of Marine Life Entanglement Risk and Management Recommendation for the Risk Assessment Mitigation Program

Date: November 17, 2023

An initial assessment and a preliminary recommendation were developed by California Department of Fish and Wildlife's (CDFW) Marine Region for consideration by the California Dungeness Crab Fishing Gear Working Group (Working Group) for the Risk Assessment Mitigation Program (RAMP; Section 132.8, Title 14, California Code of Regulations) regarding Management Actions to address marine life entanglement risk in the commercial Dungeness crab fishery as well as Section 29.80, Title 14, California Code of Regulations (Gear Restrictions for Recreational Take of Saltwater Crustaceans). The initial assessment was shared with the Working Group on November 14, 2023, and finalized at the conclusion of the Working Group meeting which was held on November 15, 2023. For a map of the RAMP Fishing Zones, see the [Whale Safe Fisheries webpage](#).

## I. Recommended Management Actions

### **Commercial Fishery:**

- Season Delay: Fishing Zones 1, 2, 3, 4, 5 and 6

### **Recreational Fishery:**

- Crab Trap Prohibition: Fishing Zones 1, 3 and 4
- Fleet Advisory: Fishing Zones 1, 2, 3, 4, 5 and 6

Table 1. Fishing Zones and current management status for the California commercial and recreational Dungeness crab fisheries.

<b>Fishing Zone</b>	<b>Commercial Fishery: Current management status</b>	<b>Commercial Fishery: Proposed management status</b>	<b>Recreational Fishery: Current management status</b>	<b>Recreational Fishery: Proposed management status</b>
1	Closed	Season Delay	Fleet Advisory	Crab Trap Prohibition; Fleet Advisory
2	Closed	Season Delay	Fleet Advisory	Fleet Advisory
3	Season Delay	Season Delay	Crab Trap Prohibition; Fleet Advisory	Crab Trap Prohibition; Fleet Advisory
4	Season Delay	Season Delay	Crab Trap Prohibition; Fleet Advisory	Crab Trap Prohibition; Fleet Advisory
5	Season Delay	Season Delay	Fleet Advisory	Fleet Advisory
6	Season Delay	Season Delay	Fleet Advisory	Fleet Advisory

## II. Management Recommendation Summary Rationale

*Entanglements:* A humpback whale entanglement was reported on November 11, 2023, in Monterey, CA and confirmed to be CA commercial Dungeness crab fishing gear (entanglement ID 20231111Mn). Humpback whale entanglements in California commercial Dungeness crab fishing gear and Unknown Fishing Gear bring the three-year rolling average Impact Score to 3.64, which exceeds the trigger as defined in RAMP for the commercial Dungeness crab fishery.

*Marine Life Concentrations:* Based on recent Marine Life Concentration surveys for Fishing Zones 1-5 conducted by CDFW, Cascadia Research, and the US Coast Guard between October 10 and November 8, 2023, humpback whale sightings were elevated in Fishing Zones 1, 3 and 4, exceeding the Marine Life Concentration trigger as defined by RAMP for the recreational and commercial Dungeness crab fisheries in those Fishing Zones.

Marine Region’s final recommendation is for the Director to delay the commercial fishery in Fishing Zones 1-6. Marine Region also recommends a continuance of the prohibition of recreational crab traps in Fishing Zones 3 and 4 and to include Fishing Zone 1 in the prohibition. The recommendation is to also continue the Fleet Advisory for Fishing Zones 1-6 until the next Risk Assessment. The recreational trap prohibition for Fishing Zone 1 would be effective on Sunday November 26, 2023, at 6:00 p.m. and continue until at least the next assessment. These recommendations are based on confirmed 2023 entanglements in CA commercial Dungeness crab fishing gear, exceedance of Marine Life Concentration data triggers, and known migration

patterns for humpback whales in Fishing Zones 1, 2, 3, 4 and 5. In addition, the current Impact Score for the commercial fishery is 3.64, requiring Management Action.

Vessel surveys observed high concentrations of humpback and blue whales in Fishing Zones 1, 3, and 4. On October 30 and 31, 2023, the OSU MOSAIC survey observed up to 13 blue and fin whales and 46 humpback whales in Fishing Zone 1. Cascadia Research observed between 35 and 68 humpback whales on October 10, 13, 14, and 16, 2023 in Fishing Zone 3. Up to seven blue whales were also observed in the Cascadia vessel surveys in Fishing Zone 3. Monterey Bay Whale Watch data in Fishing Zone 4 indicated an average number of humpback whales per half day trip during the last seven days was 19.9, with a peak of 61 whales observed during a full day trip on October 28, 2023. Oceanographic models show high habitat compression for Fishing Zones 2 and 3 through October 2023, and predict strong El Niño conditions through spring 2024, further elevating entanglement risk at this time due to compression of available forage. Recent vessel surveys confirmed humpbacks were foraging on inshore schools of anchovy. For Fishing Zone 6, lack of available data prior to the season opener requires Management Action, pursuant to 132.8(c)(2)(A) and 29.80(c)(7)(A).

For additional details, see the Entanglement and Marine Life Concentration sections of the [Available Data and Preliminary Assessment document](#).

### **III. Alternatives Considered but Rejected**

#### **Commercial Fishery**

- Gear Reduction - given the current exceedance of the Impact Score and elevated risk due to concentrations of humpback whales across Fishing Zones 1, 3 and 4, this was not the recommended Management Action.
- Depth Restriction - will not sufficiently provide protections due to distribution of humpback whales across depths and may concentrate trap gear thereby increasing entanglement risk.
- Alternative Gear - can only be authorized after April 1st.

#### **Recreational Fishery**

- Continuing only the Fleet Advisory for Zone 1 – given exceedance of Marine Life Concentration triggers in this Zone 1, this was not the recommended Management Action.