



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

Date: December 20, 2023

An initial assessment and 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 December 15, 2023, and finalized at the conclusion of the Working Group meeting which was held on December 19, 2023. For a map of the RAMP Fishing Zones, see the [Whale Safe Fisheries webpage](#).

## I. Recommended Management Actions

### Commercial Fishery:

- Fishing Zones 1 and 2:
  - Season Opener on January 5, 2024, at 12:01 am (pre-soak to begin on Jan. 2, 2024, at 8:01 am)
  - Issue Fleet Advisory
- Fishing Zones 3, 4, 5, and 6: Continue Season Delay

### Recreational Fishery:

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

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                   | Season Delay   | Season Open; Fleet Advisory                           | Fleet Advisory   | Fleet Advisory  |
| 2                   | Season Delay   | Season Open; Fleet Advisory                           | 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 confirmed humpback whale entanglement in Unidentified fishing gear was reported on December 17, 2023, off Dana Point, CA after the [December 15, 2023 Available Data and Preliminary Assessment document](#) was distributed. The whale was reported to have a line and single buoy wrapped around the right pectoral flipper and peduncle. An unmarked bullet buoy was observed with no other identifying information. Confirmed 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 (excluding the 12/17/23 entanglement; update pending based on additional information from NMFS). Additionally, the three-year rolling average Impact Score for leatherback sea turtles is 0.33.

*Marine Life Concentrations:* Based on Marine Life Concentration surveys for Fishing Zones 1-4 conducted by CDFW, US Coast Guard, NOAA, and Cascadia Research Collective between December 9-14, 2023, and Monterey Bay Whale Watch data, humpback whale sightings exceeded the Marine Life

Concentration trigger in Fishing Zones 3 and 4 as defined by RAMP for the recreational and commercial Dungeness crab fisheries.

After meeting with the Working Group, Marine Region's final recommendation is for the Director to open the commercial season in Fishing Zones 1 and 2 on January 5, 2024, at 12:01am (pre-soak to begin on Jan. 2, 2024, at 8:01 am) under a Fleet Advisory, and to continue the season delay in Fishing Zones 3, 4, 5, and 6. Marine Region also recommends continuing the temporary crab trap prohibition for the recreational fishery in Fishing Zones 3 and 4 and continuing the Fleet Advisory in all Fishing Zones. These recommendations are based on known migration patterns for humpback whales, exceedance of Marine Life Concentration data triggers in Zones 3 and 4, confirmed entanglements for humpback whales and leatherback sea turtles and the resulting Impact Scores, and economic impacts to the fleet.

Aerial and vessel surveys conducted by CDFW, US Coast Guard, NOAA, Cascadia Research Collective and The Marine Mammal Center in Fishing Zones 1, 2, 3 and 4 observed concentrations of humpback whales on December 9-14, 2023. NOAA aerial observers reported up to 24 humpback whales in Fishing Zone 3. Vessel surveys conducted on December 9-14, 2023, by Cascadia Research Collective and The Marine Mammal Center also observed aggregations of humpback whales, up to 58 individuals, in Fishing Zone 3, where whales were documented to be feeding on fish near the surface. In Fishing Zone 3, whales were primarily inshore near Pt. Reyes in waters depths of 27-38 fathoms (50-70m) and near Half Moon Bay in shallower waters around the 38 fathom (70m) line, where 28 whales were observed. 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 8, with a peak of 11 whales observed during a single half-day trip.

Oceanographic model data did not change from the last risk assessment. El Niño is still anticipated to continue through the Northern Hemisphere with a 62% chance during late spring 2024. For Fishing Zones 5 and 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).

CDFW will conduct another assessment in early January 2024 to inform a potential season opener in Fishing Zones 3, 4, 5 and 6 and a modification of the recreational trap prohibition. The next risk assessment is expected to occur on or around January 11, 2024, subject to data availability.

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

### III. Alternatives Considered but Rejected

- Gear Reduction in Fishing Zones 1 and 2- due to the reduced number of humpback whales in the area and known whale migration patterns, this action was initially considered and included as CDFW's preliminary recommendation but rejected as a recommended management action due to economic impacts and in consideration of additional time to open the fishery would thereby reduce entanglement risk.
- Fishery Closure in Zones 1 and 2 – most protective but in consideration of not attaining marine life concentration triggers and economic impacts to the fleet it was not the recommended management option.
- Gear Reduction in Fishing Zones 3, 4, 5 and 6- due to the number of humpback whales in Fishing Zones 3 and 4 and elevated Impact Scores for humpback whales and leatherback sea turtles, this action was considered but rejected as a recommended management action.
- Depth Restriction by Fishing Zone - may concentrate crab trap gear thereby increasing entanglement risk.
- Alternative Gear- can only be authorized after April 1<sup>st</sup>.