

## California Department of Fish and Wildlife Initial Assessment of Marine Life Entanglement Risk and Preliminary Management Recommendation

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Date: December 8, 2020

***CDFW will prepare a Final Assessment and Management Recommendation after review of the Working Group Recommendation and any other relevant information.***

This assessment and preliminary recommendation has been developed by California Department of Fish and Wildlife (CDFW) Marine Region staff for consideration by the California Dungeness Crab Fishing Gear 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.

### **A. Marine life entanglement risk, relative to the triggers in subsection (c)**

Confirmed Entanglements in California Commercial Dungeness Crab Gear

- During the current Fishing Season: 0
- During the current calendar year: **1 Humpback whale**

Confirmed Entanglements in Unknown Fishing Gear reported from California:

- During the current Fishing Season: 0
- During the current calendar year: **3 Humpback whales**

Marine Life Concentrations Surveys and/or Satellite Telemetry Observations:

- **Fishing Zone 4: a weekly running average of 6.2 Humpback whale sightings and a single day sighting of 5 Blue whales** based on Monterey Bay Whale Watch data; these survey data exceed the Marine Life Concentration trigger under RAMP (c)(2), 20 Humpback whales or 3 Blue whales during a survey or a running weekly average of 5 Humpback whales or 3 Blue whales

### **B. Scope of elevated risk based on Management Considerations in subsection (d)**

Section 132.8(d)(2): Information from NOAA

- No additional information was made available for this risk assessment.

Section 132.8(d)(3): Effectiveness of management measures to reduce entanglement risk

- RAMP regulations 132.8(c)(2)(A)(4)(a) and (b) specify a season delay in the

event of a concentration trigger being reached or other management action that the Director demonstrates protects Humpback whales and Blue whales based on the best available science. Based on available data on migration trends and whale location showing limited overlap within the Fishing Grounds, a Fleet Advisory will protect Humpback and Blue whales.

Section 132.8(d)(4): Total economic impact to the fleet and fishing communities

- Early season Management Action(s) have variable economic costs when seasons are delayed. CDFW will continue to work with the fleet to inform this management consideration and have provided recent analytical work in the Available Data document. Current economic considerations include loss of holiday markets, fishing effort shift, poor market conditions (price), crab availability and numerous impacts due to the ongoing COVID pandemic.

Section 132.8(d)(5): Data availability within and across Fishing Zones

- Aerial surveys were conducted across Fishing Zones 1, 2, and 3. Monterey Bay Whale Watch data was available for Zone 4. Additional observation data were contributed for Fishing Zones 3, 4 and 6 and Blue whale habitat predictions are available for all Fishing Zones.

Section 132.8(d)(6): Known historic marine life migration patterns

- Seasonal migration for Humpback whales out of California waters typically occurs in November and early December to Mexico and Central America. Humpback whales appear to be migrating from central and northern areas (where high numbers of Humpback whales were previously sighted). When Humpback whales start their migration, they tend to move offshore and head directly south, avoiding traditional Fishing Grounds along the California coast.
- Trend data from Point Blue Conservation Science indicates more Blue whales are being sighted near the Channel Islands and fewer Humpback whales are being sighted in Zone 4.
- It should be noted that Humpback and Blue whale numbers in Fishing Zone 4 (Monterey Bay) remain above average when compared to historical weekly averages based on Monterey Bay Whale Watch data. However, they are trending downward and likely will soon fall below the Marine Life Concentrations trigger.

Section 132.8(d)(7): Fishing Season dynamics

- No delay anticipated due to public health hazards.
- Tri-state quality testing protocols have been met and the quality delay will lift on Dec. 16, 2020.
- There is no fair start provision in the event of a season delay due to elevated entanglement risk.

Section 132.8(d)(8): Known distribution and abundance of key forage

- High anchovy abundance is expected to drive high density aggregations of Humpback whales during fall 2020. Total krill abundance is expected to increase from below average to above average over the winter months.
- Blue whales were sighted around the edge of the Monterey Canyon foraging on krill based on Point Blue Observation data.

Section 132.8(d)(9): Ocean conditions

- La Nina conditions are currently forecast for winter/spring 2021. Monthly Habitat compression Index in November 2020 indicates a medium compression state with increased cool habitat area since October.

Section 132.8(d)(10): Current Impact Score Calculation

- Impact score calculation under RAMP begins January 1, 2021.

Section 132.8(d)(11): Actionable Species migration into or out of Fishing Grounds and across Fishing Zones

- Based on aerial survey data, whale watch data and marine sanctuary observations, migration appears to be underway to Mexico and Central America via offshore waters.

**C. Recommended Management Action from options identified in subsection (e)**

- **Fishing Zones 1-6:** CDFW Marine Region staff's preliminary recommendation is a statewide Fleet Advisory under RAMP subsection (e)(1). Marine Life Concentrations are trending downward based on migration patterns observed in Zones 1, 2, 3 and 4. The remaining whales observed in Zone 4 were primarily sighted at or near the edge of the deep-water canyons. These areas are unlikely to see high levels of fishing effort because they are on the edge of the Fishing Grounds. A Fleet Advisory is further supported by additional information outlined above under the Management Considerations. Foraging activity appears to primarily have shifted offshore and fewer whales were observed across Fishing Zones 1, 2, 3 and 4 compared to previous surveys. These observations are consistent with published migration trends indicating whales are leaving California waters. Based on the whale distribution patterns observed in Zones 1-4, the tendency of whales to move south offshore rather than along the coast during their migration out of California, and the small number of whales previously sighted in Zones 5 and 6, CDFW's recommendation is to also open Fishing Zones 5 and 6 under a Fleet Advisory. Additionally, there is limited commercial take of Dungeness crab in Zone 5 and only sporadic take of Dungeness crab in Zone 6.

In the event of a December 16, 2020 statewide season opener, CDFW Marine staff recommend the Director notify the fleet as early as possible to allow them to begin gear preparation and for processors/buyers to anticipate commercial landings shortly after the

opening. For the northern management area, Fishing Zones 1 and 2, the pre-soak period will begin December 13<sup>th</sup> at 8:01 am and for the central management area, Fishing Zones 3, 4, 5 and 6, the pre-soak period will begin at December 15<sup>th</sup> at 6:01 am. CDFW will continue to monitor all available data to inform the next risk assessment (expected to occur on or around January 15, 2021).