



**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
DECLARATION OF FLEET ADVISORY FOR
THE COMMERCIAL DUNGENESS CRAB FISHERY
DUE TO RISK OF MARINE LIFE ENTANGLEMENT**

Pursuant to Fish and Game Code Section 8276.1(b) and California Code of Regulations, Title 14, Section 132.8 ("Section 132.8"), I find and declare that:

I

On March 17, 2021, I evaluated entanglement risk for the commercial Dungeness crab fishery pursuant to Section 132.8(b). I provided the California Dungeness Crab Fishing Gear Working Group (Working Group) and the Whale Safe Fisheries email listserv with notice of the risk assessment and all non-confidential data under consideration on March 12, 2021. Prior to this risk assessment and management response, I considered relevant information provided to my staff. The Working Group did not provide a management recommendation specific to this risk assessment.

II

NOAA-standardized data from commercial whale-watching trips in Fishing Zone 4 between March 2, 2021 and March 8, 2021 show a weekly running average of 5.7 Humpback whales in Monterey Bay. Pursuant to Section 132.8(c)(2)(B)(2)(a), I must implement a Fishing Zone closure or other protective management action.

III

There are no marine life concentration data to inform the risk assessment in Fishing Zones 1, 5, and 6. Pursuant to Section 132.8(c)(2)(B)(1), I must implement a protective management action.

IV

Upon evaluation of the management considerations pursuant to Section 132.8(d), I have determined that the management action listed below protects Humpback whales and Blue whales based on the best available science. Additional information on the relevant management considerations is provided in the attachment to this declaration.

V

THEREFORE, under the authority granted by Fish and Game Code Section 8276.1(b) and Section 132.8 of Title 14 of the California Code of Regulations, I am implementing the following management action:

Conserving California's Wildlife Since 1870

1. A Fishing Advisory is issued for ocean waters statewide (Fishing Zones 1 - 6) for the California commercial Dungeness crab fleet. The Department encourages the fleet to implement fishing best practices (e.g. minimizing knots, line scope) and to immediately remove all gear when an operator no longer intends to fish. Vessels fishing in Zone 4 should pay particular attention to the location of set gear and foraging whales and minimize entanglement risk by adhering to the [Best Practices Guide](#).

This management action is in effect until the next risk assessment, which is expected to occur on or around April 1, 2021.

Updates and material regarding future entanglement risk evaluations in the commercial Dungeness crab fishery will be made available on the Department's web page:
www.wildlife.ca.gov/Conservation/Marine/Whale-Safe-Fisheries



Charlton H. Bonham, Director

3/17/21 3:25pm PST

Date/Time

ATTACHMENT TO DIRECTOR MARCH 17, 2021 DECLARATION OF FLEET ADVISORY
FOR THE COMMERCIAL DUNGENESS CRAB FISHERY DUE TO RISK OF MARINE LIFE
ENTANGLEMENT

Information referenced in this Attachment is further described in the Data Summary Compilation dated March 16, 2021, and located at the Department's Whale Safe Fisheries website (<https://wildlife.ca.gov/Conservation/Marine/Whale-Safe-Fisheries>), which to the Department's knowledge represents the best available science informing the management considerations in Section 132.8(d).

Information Supporting Trigger for Management Action Under Section 132.8(c)

Marine Life Concentrations:

- **Fishing Zone 4:** Weekly running average of 5.7 animals and single day sighting of 30 Humpback whales based on Monterey Bay Whale Watch data, which exceeds the marine life concentration trigger under RAMP (c)(2)(B)(2).
- **Fishing Zone 1 and 5:** No current data are available for these Zones, which triggers management response under RAMP (c)(2)(B)(1).

Relevant Management Considerations Under Section 132.8(d)

1. Working Group Management Action Recommendation and Best Available Science Made Available to the Department

No Working Group Recommendation was provided for this risk assessment.

2. Information from NOAA

No additional information was provided for this risk assessment.

3. Effectiveness of Management Measures to Minimize Entanglement Risk

Given the low relative running average sightings of Humpback whales, a Fleet Advisory will be an effective Management Action due to anticipated declining fishing effort in Fishing Zone 4, and will provide additional precaution for all Zones.

4. Total Economic Impact to the Fleet and Fishing Communities

A Fleet Advisory is not anticipated to have significant economic impact on the fleet or fishing communities as it allows for continued fishing opportunity.

5. Data Availability Within and Across Fishing Zones

Monterey Bay Whale Watch (MBWW) data was available for Fishing Zone 4. Additional Department aerial survey data were available for Zones 2, 3 and 4, Point Blue observation data for Zones 3, 4 and 6 and Blue whale habitat predictions are available for all Fishing Zones. The Habitat Compression Index and Whale Watch 2.0 habitat predictions are available for all Zones. The Department considers this comprehensive data set to adequately cover the full geographic extent of those Fishing Zones to inform the appropriate management response.

6. Known Historic Marine Life Migration Patterns

Low presence of Humpback whales across all but one of the Fishing Zones is consistent with average historical late winter patterns that show few or no Humpback whale sightings when whales are mostly at their breeding areas off Mexico and central America. Recent surveys at these breeding areas indicated lower numbers of Humpback whales than previously observed during mid-winter surveys, indicating some departures.

Continued absence of Blue whales from Zones 1-5 is consistent with their migration to breeding areas during the winter months.

7. Fishing Season Dynamics

Season price negotiations delayed the actual start of fishing following the December 23, 2020 statewide opener. Most vessels began setting gear on Monday January 11, 2021.

Based on Department landings data, 351 vessels have participated in the fishery as of March 2, 2021. Week 5 had the highest number of potential traps deployed across all Fishing Zones, with an estimated total of 94,350 traps. Fishing Zone 3 had the highest total, followed by Zone 1. Based on the most recent landings data from week 10, participation and landings volume has decreased significantly. The estimated maximum number of traps is currently 45,625.

8. Known Distribution and Abundance of Key Forage

Krill abundance (higher offshore in the outer slope) is anticipated to be closer to average yearly values while anchovy is still considered to be above average, based on the historical record.

9. Ocean Conditions

La Niña conditions persisted in January with a 60% chance of a transition from this condition to ENSO-neutral in the northern hemisphere by the spring months of April, May and June.

The latest outlook of late winter/spring ocean ecosystem conditions shows that ocean conditions have cooled significantly over this past winter and conditions in spring are trending toward cool and productive conditions. It is anticipated that cool conditions will continue, with expanded upwelling habitat and no signs of impact of habitat compression that would otherwise result in increased concentrations and aggregations of whales and forage nearshore.

10. Current Impact Score Calculations

- a. Fishing Season – 0
- b. Calendar Year – 0

11. Marine Life Concentrations and Distribution During the Current Fishing Season

Based on Department aerial survey data, Monterey Bay Whale Watch data, and Point Blue Conservation Science observation data, significant migration into the Fishing Grounds has yet to occur. A single Humpback whale has been observed feeding inside San Francisco Bay. Humpbacks foraging for anchovies inside the bay are typically not observed until mid-April based on the previous 5-year sighting history. Additionally, two Humpback whales were observed outside and to the east of San Francisco Bay in Zone 3 on March 14, 2021. Three Humpback whales and one Blue whale were observed in Zone 6 but is considered outside of the Dungeness crab fishing grounds.

Chosen Management Action and Rationale

Based on the management considerations outlined above, the Director will implement a state-wide Fleet Advisory.

Fishing Zone 4 reached a marine life concentration trigger, leading to analysis of the management considerations under Section 132.8(d) and appropriate management response under Section 132.8(c). Those sections anticipate a broader analysis of the factors impacting entanglement risk statewide. A Fleet Advisory under section 132.8(e) is not necessarily limited to a single Fishing Zone, and compliance with best management practices throughout the state will ensure that entanglement risk remains low as we begin to approach a time of year when Humpback and Blue whales start migrating into the Fishing Grounds. The RAMP regulations indicate a Fleet Advisory is warranted if the level of risk is elevated and/or anticipated to increase but more restrictive management actions are not necessary at this time.

Although historic information indicates we are approaching the spring migration period, available data indicate the bulk of the migration has not started at this time. Department aerial survey data for Zones 2, 3, and 4 observed very few Actionable Species; it is reasonable to use this data as a proxy for whale presence in Fishing Zones 1 and 5.

Additionally, observation data from Point Blue Conservation Science supports low whale presence in the Fishing Grounds. In addition, based on oceanographic and forage condition data, cool conditions persist, and compression of available forage which could increase co-occurrence of trap gear and whales as they begin to arrive to the Fishing Grounds is not expected to occur. Additionally, fleet participation is low and decreasing compared to activity levels from previous years.

A Fleet Advisory provides notice to fishermen of possible whale presence, and encourages them to implement best fishing practices (e.g. minimizing knots, line scope) and to immediately remove all gear when an operator no longer intends to fish. Additionally, vessels fishing in Zone 4 should pay particular attention to the location of gear and foraging whales and further minimize entanglement risk by adhering to the Best Practices Guide. The Department will perform additional risk assessments throughout the spring and respond to changing entanglement risk as appropriate should new data indicate the increased presence of Humpback and Blue whales in the Fishing Grounds.