

**California Dungeness Crab Fishing Gear Working Group (Working Group) Risk Assessment and Mitigation Program (RAMP) 2019-20 Management Recommendations Form**

*Discussion Date: March 25, 2020 Recommendation Finalized: March 30, 2020*

The Working Group requests this recommendation and supporting information be considered by the California Department of Fish and Wildlife (CDFW) Director prior to any upcoming risk determination.

**A. Identified risk(s) and severity**

Based on the information available during the March 25, 2020 discussion, the Working Group's risk assessment associated with the four RAMP factors is as follows:

- **Entanglement: Risk is low**
  
- **Marine Life Concentrations**
  - Blue Whales: risk is low
  
  - Leatherback Sea Turtles: risk is low
  
  - Humpback Whales
    - Central Management Area: Risk is low, with trends increasing in the Monterey Bay area
  
    - Northern Management Area: Risk is inferred low (majority recommendation); Risk is unknown (minority recommendation)
  
- **Ocean and Forage Conditions: Risk is low**
  
- **Fishing Dynamics: Risk is low**

Rationale supporting the consensus portions of the risk assessment, and the majority assessment for Humpback Whales in the Northern Management Area, is provided in Section B. The minority rationale is provided in Section D. The management recommendations in Section C are consensus recommendations.

## **B. Available information**

The Working Group's discussion was informed by the Data Compilation<sup>1</sup> provided by CDFW, in partnership with Working Group advisors, on March 23, as well as additional real-time contributions during the March 25 discussion. Rationale and key information which informed the assessment are summarized below for each factor.

### *Entanglement (Humpback Whales, Blue Whales, Leatherback Sea Turtles)*

- There have been no confirmed entanglements in California commercial Dungeness crab gear during the current fishing season.
- The February 28, 2020 confirmed Humpback Whale entanglement, initially discussed during the March 9 risk assessment<sup>2</sup>, is still classified as “unidentified gear” by the National Marine Fisheries Service. This classification is unlikely to change unless the entangled whale is re-sighted and a commercial fishing license number or other gear markings allow it to be attributed to a specific fishery.
- Working Group members revisited available information regarding the February 28, 2020 entanglement and emphasized their perspective that the gear is not commercial Dungeness crab based on the color, stiffness, and width (approximately 1 inch) of the line.

### *Marine Life Concentrations (Humpback Whales, Blue Whales, Leatherback Sea Turtles)*

- Neither the CDFW aerial survey nor Monterey Bay Whale Watch (MBWW) data indicates Blue Whales are present off the California coast.
- Satellite tagging data for Leatherback Sea Turtles indicates turtles are still well outside of California waters, and have not yet begun their return to central California foraging grounds.
- The one-week running average of Humpback Whales from MBWW data is 5.6 whales per trip. This is a doubling relative to prior weeks, and is slightly above the Working Group's Risk Assessment Framework “low risk” threshold of 5 whales. The

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<sup>1</sup> <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=177924>

<sup>2</sup> <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=177681&inline>

rate of increase is consistent with historical patterns, and expected to continue in the coming weeks.

- Naturalists with the National Park Service and Channel Islands National Marine Sanctuary have reported around 300 Humpback Whales near the Channel Islands over the last 30 days. Working Group advisors shared this is a typical area for Humpback Whales to aggregate prior to moving into more northern waters. Combined with the relatively low counts from the MBWW data, CDFW aerial survey, and observations at the Farallon Islands, these data suggest that most Humpback Whales remain outside the Central Management Area (CMA) at this time, but that presence will likely increase in the coming weeks. This is generally consistent with the March 5 Data Compilation and the Working Group's March 11 risk assessment.
- The absence of Humpback Whales at the northern extent of the CDFW aerial survey, low counts at the Farallon Islands, and typical south-to-north migration pattern suggests low presence within the Northern Management Area (NMA). See Section D for the minority perspective.

#### *Ocean and Forage Conditions*

- The indices available during the March 9 risk assessment are still relevant for assessing risk related to this factor; updated indices will be available in early April.
- Oceanographic conditions, particularly the North Pacific High, indicate cool water, strong upwelling, and high krill production. When whales arrive, they are likely to be widely dispersed off the California coast rather than aggregating in nearshore waters.

#### *Fishing Dynamics*

- CDFW landings data indicate a continued decline in Dungeness crab vessel activity and a recent drop in price, particularly relative to the higher price expected for live crab during spring months.
- Compared to the first week where both management areas were open (Week 3; 12/29/2019-1/4/2020), Week 13 (3/8/2020-3/14/2020) CDFW landings data indicates ~ 50% decline in vessel activity and the maximum number of deployed traps. Data

from Week 14 (3/15/2020-3/21/2020), while incomplete at the time data was analyzed, suggest additional declines.

- Predicted numbers of active vessels and deployed traps on April 1 from a port-based survey by the California Coast Crab Association (CCCA) on March 24, 2020 have declined by ~ 50% compared to estimates from the March 7, 2020 CCCA survey.
- Trap counts from the CDFW aerial survey are provided for informational purposes and are not absolute. This number cannot be used to estimate the total number of deployed traps within the survey area.
- Some participants would typically be transitioning out of the fishery at this time while others in both the CMA and NMA rely on spring Dungeness crab fishing opportunities. It is unclear how market impacts from the COVID-19 pandemic will impact spring fishing for Dungeness crab or transitions to other fisheries (e.g., salmon, sablefish, etc.).

### **C. Management recommendation(s)**

Based on the above assessment of risk across all four factors, the Working Group does not recommend any management action by the CDFW Director at this time. This is a consensus recommendation.

Based on historic whale distribution and migration patterns, and the high presence of Humpback Whales near the Channel Islands, the Working Group anticipates Humpback Whales will return to Dungeness crab fishing grounds in the coming weeks. The Working Group recommends that the fleet be on alert and ready to respond in a timely and efficient manner to any needed management measures. The Working Group requests that the CDFW Director provide at least 72 hours notice to the fleet prior to implementation of any management measure.

The Working Group continues to encourage commercial and recreational Dungeness crab fishery participants to use best practices, as outlined in their current Best Practices Guide<sup>3</sup>,

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<sup>3</sup> [http://www.opc.ca.gov/webmaster/\\_media\\_library/2019/11/2019-20\\_BPG\\_Final.pdf](http://www.opc.ca.gov/webmaster/_media_library/2019/11/2019-20_BPG_Final.pdf)

including avoiding areas with bait balls or krill swarms and pulling gear promptly once done fishing for the season.

The Working Group requests the agencies and advisors continue to track available information across all four risk factors, and reconvene the Working Group in advance of the next scheduled risk assessment if new information indicates a substantial change to the status of any risk factor.

Prior to the next risk assessment, the Working Group requests the following:

- CDFW or other partners conduct an aerial survey which covers both the NMA and CMA
- Updated plots of MBWW data, only if advisors determine ad-hoc collection of marine life concentrations data during shelter-in-place orders can be integrated into more standardized time series
- Available information from solar loggers, particularly related to marine life concentrations in the NMA
- Available information regarding Humpback Whale migration patterns along the US West Coast, and how marine life concentrations data from areas within the CMA can inform likely presence within the NMA
- Historical trends in Dungeness crab fishing gear entanglements during spring and summer months based on NOAA entanglement reports

#### **D. Alternatives**

A minority of Working Group members, two members, assessed marine life concentrations risk for Humpback Whales in the NMA as unknown. While the majority of Humpback Whales migrate from south to north, some are resident year-round off Northern California and Oregon, and could enter northern California waters without first passing through Monterey Bay or the Gulf of the Farallones. In the absence of aerial surveys or other observational data in the Northern Management Area, risk should therefore be categorized as unknown rather than low. These members emphasized this risk level does not necessitate a management action. Rather, they highlighted the urgent need to collect information from both management areas prior to future risk assessments, which is a perspective shared by the full Working Group.