

## California Dungeness Crab Fishing Gear Working Group (Working Group) Management Recommendation Form

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Submitted to the California Department of Fish and Wildlife (CDFW) Director 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.

*Working Group Discussion Date: November 3, 2020 - Finalized November 4, 2020*

During their discussion, the Working Group considered [Available Data](#) provided by CDFW on October 30 (and updated on November 2), as well as an initial CDFW assessment of management considerations, and preliminary management action. The initial and final versions of CDFW's assessment are available on the Whale Safe Fisheries webpage. Key elements of the Working Group discussion are summarized below, which is documented on the basis of comments made on or in addition to the CDFW initial assessment.

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

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

- No additional information was shared during the Working Group discussion.

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

- Working Group members noted the reported number of observed Humpback whales represents only a portion of the estimated California/Oregon/Washington stock size. Working Group members raised concerns about the effectiveness of any management actions given the unknown location of the remainder of the stock. Working Group data contributors clarified that aerial and vessel survey methods do not provide a complete census of all animals present within the surveyed area. The actual abundance could be several times higher than the numbers reported in the Available Data. Based on available information it appears a substantial proportion of the stock is still present and has not begun their southern migration.
- Working Group members raised the importance of specifying how management measure effectiveness will be assessed.

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

- Working Group members noted the importance of determining the economic impact to both fishermen and the broader industry (e.g. processors, off loaders, fuel docks, mechanics, etc.) as part of the management measure consideration process and prior to making any management recommendation.
- Working Group members noted that marine life entanglements in California commercial Dungeness crab gear have declined over the last four years, indicating that risk reduction measures have been working. It should be noted that this has

come at a high cost to the fleet/industry and that there is a need to determine what actual costs have been.

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

- No additional information was shared during the Working Group discussion.

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

- Working Group members requested clarification regarding the specific path(s) taken by Humpback whales when they begin their winter migration, and their behavior (e.g. do they engage in foraging activity) during that migration. Working Group Advisors shared that Humpback whales generally show highly directional movement once they have begun their southward migration which may take them out of the Fishing Grounds; and thus pose a lower risk of entanglement.

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

- Working Group members noted that since there are no fair start provisions for delays under the RAMP regulations, delaying the season opener for only Fishing Zones 3 and 4 while allowing Fishing Zone 5 to open as scheduled on November 15 would inhibit an orderly start to the fishery and possibly increase risk of entanglement due to a concentration of fishing effort in the only open Fishing Zone.
- Working Group members also highlighted the challenges at the beginning of the 2019-20 season, when changing assessment of early season risk resulted in management actions being imposed on very short notice to the fleet.

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

- No additional information was shared during the Working Group discussion.

Section 132.8(d)(9): Ocean conditions

- No additional information was shared during the Working Group discussion.

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

- No additional information was shared during the Working Group discussion.

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

- Working Group members requested clarification regarding the methods used for marine life concentration surveys and the potential for observers to double count the same individuals. Data contributors stated that double counting was possible but unlikely. Undercounting was more likely and the standardization that occurs with Monterey Bay Whale Watch data mitigates the issue.

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

**Fishing Zones 3 and 4:** The Working Group supports the CDFW's preliminary recommendation of a season a delay in Fishing Zones 3 and 4 until at least December 1, pending the next CDFW risk assessment and Working Group management recommendation discussion (anticipated on or around November 23rd). A large number of Humpback whales are still present and actively foraging in the fishing grounds, with little indication that their southward migration to winter breeding grounds in Mexico and Central America has begun. Due to expected high level of fishing effort at the start of the season, this could pose an increased risk of marine life entanglement. Working Group members requested information on the economic impact of the season delay until Dec 1 as well as economic impacts of any further proposed delays prior to making any further management recommendations. The Working Group emphasized the importance of evaluating and understanding the economic impact of a delay to the Fleet/industry/dependent communities.

**Fishing Zone 5:** While the current numbers of Actionable Species in Fishing Zone 5 do not trigger a management action under RAMP, the Working Group recommends a season delay in this Fishing Zone. This is, in part, because of the possibility that whales in the northern Zones will transit through Zone 5 during their southerly migration. Additionally, as noted above, there is no fair start for delays under RAMP. Delaying the season opener for all three Fishing Zones will ensure a fair and orderly opening for those zones and prevent concentration of effort and increased entanglement risk in this zone.

**All Fishing Zones:** The Working Group requests CDFW include information regarding the full economic impact expected from this delay and management measure effectiveness in the Available Data for the next assessment. As well as the economic impact of any other proposed delays or management measures.