

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

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 23, 2020– Finalized November 24, 2020

During their discussion, the Working Group considered [Available Data](#) provided by CDFW on November 20, 2020, 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.

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

- No entanglements have been reported for the current season, despite the recreational crab fishery opening as scheduled in early November.

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

- Working Group members acknowledged the additional analysis provided by CDFW in the Available Data document. Based on the totals in Figure 6, Working Group members estimate a minimum loss of \$40 million in Ex-Vessel Value from the potential 4-week delay in the opener for Fishing Zones 3-6. A delayed opener for Fishing Zones 1 and 2 would result in additional economic impacts.

- Ex-Vessel value does not represent the full extent of impacts to the industry. Studies for the Port of San Diego estimate downstream impacts to associated businesses (e.g. fuel docks) as being eight times those to Ex-Vessel Value, and similar ratios are likely in these circumstances.
- Given the delays and closures during the prior two fishing seasons, a delay beyond December 15 would create a fishery disaster, and vessels would again be unable to recoup their losses during the remainder of the season.

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

- Working Group members received additional survey information collected on November 20 and 21 for Fishing Zones 3 and 4, which are reflected in the updated Available Data document.
- Working Group members noted the pilot industry survey on November 11, 2020 provides an additional source of information for Fishing Zone 1. The survey confirmed continued presence of Humpback whales in this Fishing Zone.

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

- Working Group members requested clarification regarding likely presence and abundance of whales in Fishing Zones 1 and 2 based on historic patterns as well as recent survey information. Working Group Advisors shared they expect most whales to move out of the area and initiate migration in late November or early December. While there is limited Fall survey information within the Fishing Grounds during prior years, that timing is consistent with typical arrival of Humpback whales in their breeding grounds. When they initiate migration, Advisors anticipate the whales will depart directly to the breeding grounds rather than stopping and feeding through central and southern California. There is some uncertainty around how much of the population will depart, given overwintering behaviors observed during and since the Large Marine Heatwave event in 2014-2016, however the bulk of the population should depart. Advisors also clarified that the late November/early December migration timeframe is anticipated, but there is no clear indication that whales have begun their migration yet.

- Working Group Advisors shared that Leatherback sea turtles are also expected to depart the fishing grounds in late November/early December. Their migration is triggered by multiple factors, including prey availability and light levels.

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

- Some Working Group members asserted the importance of providing a management recommendation for Fishing Zones 1 and 2, even with quality delay.
- If there is a further delay for Fishing Zones 3-6, the opener should be delayed until December 16 rather than December 15 to align with the quality-delayed opener for Fishing Zones 1 and 2.
- Working Group members stressed that any additional delays beyond December 15 should be as short as possible, both in terms of the time between collection of additional Marine Life Concentrations information and issuance of the CDFW Initial Assessment, and between a final CDFW determination and commencement of fishing activity (i.e. the 72-hour minimum requirement specified in Section 132.8).

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

- Working Group members noted abundant jellies, including sea nettles, have been observed off Half Moon Bay.
- Working Group Advisors noted that the inshore/offshore distribution of Humpback whales is more reflective of forage availability than impending migration. Humpback whales which have moved offshore may move inshore again if forage shifts before they begin their migration.
- A Working Group Member noted that the estimated population of the Central Subpopulation of Northern Anchovy remains at or near all-time highs.

Section 132.8(d)(9): Ocean conditions

- Working Group members noted high winds and large swells are expected towards the end of this week (beginning on Wednesday night), which may drive whales to begin migrating and leave the Fishing Grounds.

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 Advisors confirmed that recent trends in observations (i.e. sightings along the 70m vs 200m transect) for the areas surveyed indicate whales were more concentrated offshore (200m), other than a large cluster remaining off Point Reyes and some sightings reported in shallower portions of Monterey Bay.
- Working Group members inquired whether the Gray whale migration has begun, and whether WhaleAlert contributors are able to distinguish between Humpback whales and Gray whales. Working Group Advisors shared that Gray whales typically begin arriving in Monterey Bay during mid/late December, and that WhaleAlert contributors can distinguish between Gray and Humpback whales.
- Working Group members noted that during a recent transit from Half Moon Bay to Moss Landing, no Humpback whales were seen in shallower waters (less than 30 fathoms). Black cod fishers off Año Nuevo also report that they are only seeing whales offshore.

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

Fishing Zones 1 and 2: The Working Group acknowledges that due to low quality, Fishing Zones 1 and 2 have already been delayed until at least December 16. However, in the absence of a quality delay, the Working Group would recommend an on-time season opener under a Fleet Advisory on December 1. This recommendation was made due to ocean conditions, typical migration patterns and expected economic

impacts to the fleet from a delay and because marine life concentrations data indicate whales are moving into offshore waters and away from typical Fishing Grounds.

Fishing Zones 3 – 6: The Working Group recommends the season opener be delayed until December 16. This is one day later than the December 15 date from the CDFW Initial Assessment in order to align with the current proposed opener for Fishing Zones 1 and 2.

State-wide fishery: Notwithstanding additional quality constraints impacting Fishing Zones 1 and 2, the delayed opener would only be extended if new data gathered before December 16 indicates it would be prudent to do so. This recommendation is partially based on the potential of additional protective measures going into effect due to COVID, which may constrain the ability of CDFW and other partners to collect additional on-the-water observations. Furthermore, this based on the current and prior data which shows the whales have started to move offshore and historical patterns indicate migration is likely to have begun by December 16. Given the economic importance of the Christmas market(s), an absence of additional data in these Fishing Zones should not result in additional delays. Rather, further delays should only be implemented if additional surveys affirm continued presence of large whales in the Fishing Grounds. While no current survey data is available for Fishing Zone 5 or 6, Working Group members noted survey information was included for Fishing Zone 5 in the [prior Available Data document](#).

During the discussion, Working Group Advisors clarified the distinction between historical data (e.g. multiple years or decades of observations regarding when large whales are seen in the foraging grounds versus the breeding grounds), recent survey data (e.g. data which informed prior RAMP discussions), and current survey data (e.g. information collected since the last RAMP discussion). Advisors noted that a “no data” situation under the terms of the RAMP regulations does not prevent considering recent or historical survey data.