

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

Date: March 12, 2021

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 have 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, based on triggers in subsection (c)

Confirmed Entanglements in California Commercial Dungeness Crab Gear:

- During the current Fishing Season: 0
- During the current calendar year: 0

Confirmed Entanglements in Unknown Fishing Gear reported from California:

- During the current Fishing Season: 0
- During the current calendar year: 0

Marine Life Concentrations Surveys and/or Satellite Telemetry Observations:

- **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).

B. Scope of 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

- 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.

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

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

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

- Monterey Bay Whale Watch (MBWW) data was available for Fishing Zone 4. Additional CDFW 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.

Section 132.8(d)(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.
- Absence of Blue whales is consistent with their known southward migration to breeding areas during winter.

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

- Season price negotiations delayed actual start of fishing following the December 23, 2020 statewide opener. Most vessels began setting gear on Monday January 11, 2021.
- Based on CDFW 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, vessel participation and landings volume has decreased significantly. The estimated maximum number of traps is currently 45,625.

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

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

Section 132.8(d)(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.

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

- Impact score calculation under RAMP began on January 1, 2021. Current impact score is 0 for all three Actionable Species.

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

- Based on Monterey Bay Whale Watch data, Point Blue Conservation Science observation data and CDFW aerial survey 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.

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

- **Fishing Zones 1-6:** CDFW Marine Region staff's preliminary recommendation is to issue a state-wide Fleet Advisory based on the weekly running average of Humpback whales observed in Zone 4 and the lack of recent survey data for Zones 1 and 5. Based on the CDFW aerial survey data for the adjacent Zones 2, 3 and 4, very few Actionable Species were observed, which serves as a proxy for anticipated observations in Fishing Zones 1 and 5. Although migration is expected to increase into Zone 4 and adjacent Zones based on known historic migration patterns, available data indicate the bulk of the migration has not started at this time. There are no confirmed entanglements this season, all indications are that the habitat compression remains low and ocean sea surface temperatures remain neutral to negative, and fleet participation is low and decreasing compared to activity levels from previous years; when paired with still low or nonexistent presence of Humpback whales and Blues whales respectively, risk appears low across all management considerations.

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. The Director may issue an advisory notice to the Fleet to employ voluntary efforts and/or measures to reduce the risk of entanglements (i.e., fishing best practices) and to avoid triggering additional management actions. As a result, CDFW 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](#).

CDFW will continue to monitor all available data to inform the next risk assessment (expected to occur on or around April 1, 2021).

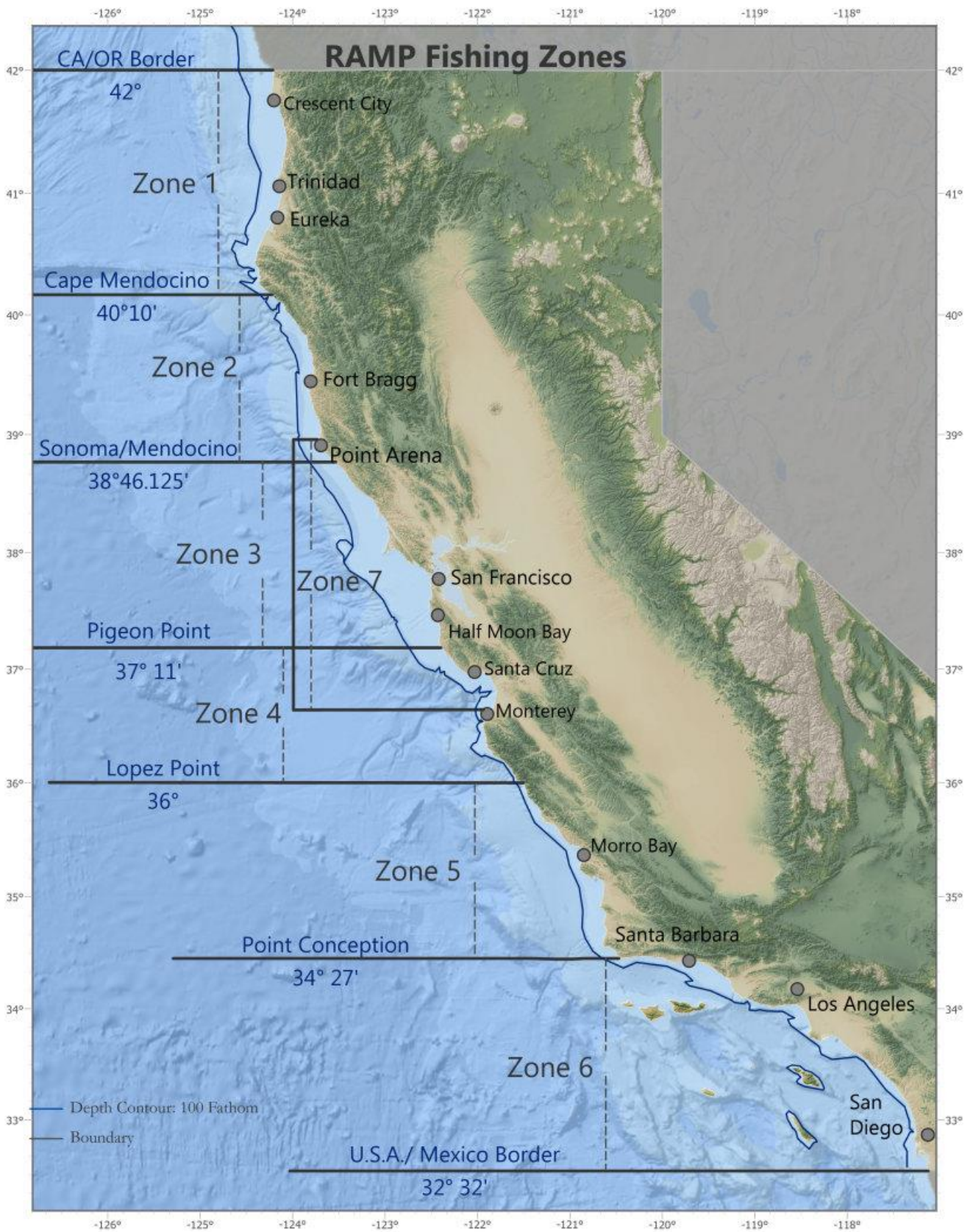


Figure 1. RAMP Fishing Zone boundaries.