

2024-2025 Risk Assessment Preliminary Assessment and Available Data for Risk Assessment Mitigation Program

Last updated: January 13, 2025

PRELIMINARY ASSESSMENT

This Preliminary Assessment and Management Recommendation has 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 and recreational Dungeness crab fishery. CDFW will prepare a Final Assessment and Management Recommendation after review of the Working Group Recommendation and other relevant data.

Recommended Management Actions

Commercial Fishery:

- Fishing Zones 1 and 2: Continue 25% Gear Reduction
- Fishing Zones 3-6: Continue 50% Gear Reduction
- All Fishing Zones: Continue Fleet Advisory

Recreational Fishery:

- All Fishing Zones: Continue Fleet Advisory

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Table 1. Fishing Zones and current management status in the California commercial and recreational Dungeness crab fishery.

Fishing Zone	Commercial Fishery: Current Management Status	Commercial Fishery: Proposed Management Status	Recreational Fishery: Current Management Status	Recreational Fishery: Proposed Management Status
1	25% Gear Reduction	25% Gear Reduction	Fleet Advisory	Fleet Advisory
2	25% Gear Reduction	25% Gear Reduction	Fleet Advisory	Fleet Advisory
3	50% Gear Reduction	50% Gear Reduction	Fleet Advisory	Fleet Advisory
4	50% Gear Reduction	50% Gear Reduction	Fleet Advisory	Fleet Advisory
5	50% Gear Reduction	50% Gear Reduction	Fleet Advisory	Fleet Advisory
6	50% Gear Reduction	50% Gear Reduction	Fleet Advisory	Fleet Advisory

I. Management Recommendation Summary Rationale

The Marine Region’s preliminary recommendation is for the Director to continue the 25% Gear Reduction in Fishing Zones 1 and 2 and the 50% Gear Reduction in Fishing Zones 3, 4, 5 and 6. The Fleet Advisory would also continue in all Fishing Zones.

The Marine Region also recommends a continuation of the Fleet Advisory for all Fishing Zones (1-6) for the recreational fishery.

These recommendations are supported by the high number of entanglements that occurred during the 2024 calendar year and 3-year average Impact Score for the commercial fishery. The prior seasons Impact Score was 5.66 and the 3-year average Impact Score was 3.9 for humpback whales, therefore a Vertical Line/Gear Reduction is the recommended Management Action to minimize the number of vertical lines/traps for the commercial fishery. Reducing the number of traps used in each Fishing Zone will also reduce the likelihood of lost or abandoned gear throughout the season. As described in the [December 19, 2024 in the Final Assessment and Management Recommendation](#), Marine Life Concentrations were decreasing across all Fishing Zones but there remains a risk of entanglement and precautionary Management Actions should remain employed to reduce entanglement risk, which includes the current 50% Gear Reduction in Fishing Zones 3-6 and 25% Gear Reduction in Fishing Zones 1 and 2.

Entanglements: Numerous humpback whale entanglements have been reported since the close of the 2023-24 fishing season. Table 2 describes confirmed Actionable Species entanglements in 2024 that have been reported by the National Marine Fisheries Service (NMFS) as of January 13, 2025. Humpback whale entanglements in California commercial Dungeness crab fishing gear and Unknown Fishing Gear bring the three-year rolling average Impact Score to 3.9 (subject to revision), which exceeds the trigger as defined in RAMP of two entanglements, requiring Management Action to reduce entanglement risk in the commercial Dungeness crab fishery.

All Management Actions will be reevaluated at the next Risk Assessment, which is expected to occur on or around February 14, 2025. For additional details, see the Entanglement and Marine Life Concentration sections of this Available Data document.

II. Alternative Management Actions for the Commercial Fishery

Alternative Recommendation

- Season Delay – Fishing Season has already started in all Fishing Zones, so not considered as a Management Action.
- Depth Restriction – given the distribution of whales this Management Action is not recommended.
- Alternative Gear - can only be authorized after April 1st.

AVAILABLE DATA

III. Triggers Requiring Management Action

I. Confirmed Entanglements: §132.8(c)(1)

Data provided by: Lauren Saez and Dan Lawson (National Marine Fisheries Service)

The table below outlines the confirmed entanglements under RAMP and their associated Impact Score for the year 2024. See "[FAQ: Impact Scoring for the Risk Assessment and Mitigation Program](#)" for information about the RAMP Impact Score. More information and definitions, please see the [RAMP Entanglement History](#) document.

Table 2. Actionable Species Entanglements during 2024 pursuant to RAMP regulations.

Entanglement ID	Date	Species	Fishery	Impact Score
20241202Mn	12/02/24	Humpback whale	Unknown Fishing Gear	0.38
20241122Mn	11/22/24	Humpback whale	Unknown Fishing Gear	0.38
20241028Mn	10/28/24	Humpback whale	Unknown Fishing Gear	Pending review
20241022Mn	10/22/24	Humpback whale	Unknown Fishing Gear	0.38
20241020Mn	10/20/24	Humpback whale	Unknown Fishing Gear	0.38
20241019Mn	10/19/24	Humpback whale	Unknown Fishing Gear	0.38
20241011Mn	10/11/24	Humpback whale	CA commercial Dungeness crab	0.75
20241009Mn	10/09/24	Humpback whale	Unknown Fishing Gear	0.38
20240928Mn	09/28/24	Humpback whale	CA commercial Dungeness crab	0.75
20240927Mn_2	09/28/24	Humpback whale	CA commercial Dungeness crab	0.75
20240921Mn	09/21/24	Humpback whale	Unknown Fishing Gear	0.38
20240905Mn	09/05/24	Humpback whale	Unknown Fishing Gear	0.38
20240902Mn	09/02/24	Humpback whale	Unknown Fishing Gear	0.38
20240517Mn2	05/17/24	Humpback whale	Unknown Fishing Gear	0.38
20240517Mn1	05/17/24	Humpback whale	CA commercial Dungeness crab	0.75

Table 3. Impact Score Calculations based on Confirmed Entanglements in California commercial Dungeness crab gear and Confirmed Entanglements in Unknown Fishing Gear reported off California.

Actionable Species	Current Fishing Season Impact Score (2024-25)	Current Calendar Year Impact Score (2025)	3-Year Rolling Average
Humpback whales	0	0	3.9
Leatherback sea turtle	0	0	0.33

As of January 9, 2025, there have been 0 Confirmed Entanglements of blue whales or leatherback sea turtles during the 2024-2025 period.

II. Marine Life Concentrations: §132.8(c)(2)

Data provided by: Monterey Bay Whale Watch (processed by Karin Forney, NOAA SWFSC)

For the period of November 1 until the Fishing Season opens statewide a RAMP Marine Life Concentration trigger has been met when:

- The number of humpback whales is greater than or equal to 20, or there is a running average of five or more animals over a one-week period within a single Fishing Zone.
- The number of blue whales is greater than or equal to three, or there is a running average of three or more animals over a one-week period within a single Fishing Zone
- A Pacific leatherback sea turtle is seen in any Fishing Zone

Table 41. Summary of available CDFW-approved survey data for Marine Life Concentrations for each Fishing Zone, and whether the triggers established in Section 132.8(c)(2) have been met for any Fishing Zone.

Fishing Zone	CDFW-approved survey data	Triggers attained?
Zone 1	None	N/A-No survey data
Zone 2	None	N/A-No survey data
Zone 3	None	N/A-No survey data
Zone 4	MBWW	Yes
Zone 5	None	N/A-No survey data
Zone 6	None	N/A

A. Monterey Bay Whale Watch Surveys (Fishing Zone 4)

Monterey Bay Whale Watch conducted whale watching trips in southern Monterey Bay on six of seven days during the week of January 1-7, 2025. The 7-day average number of humpback whales per half day trip during January 1-7, 2025, was 7.4

with a peak of 11 humpback whales observed on a half day trip on January 2025 (Figure 1).

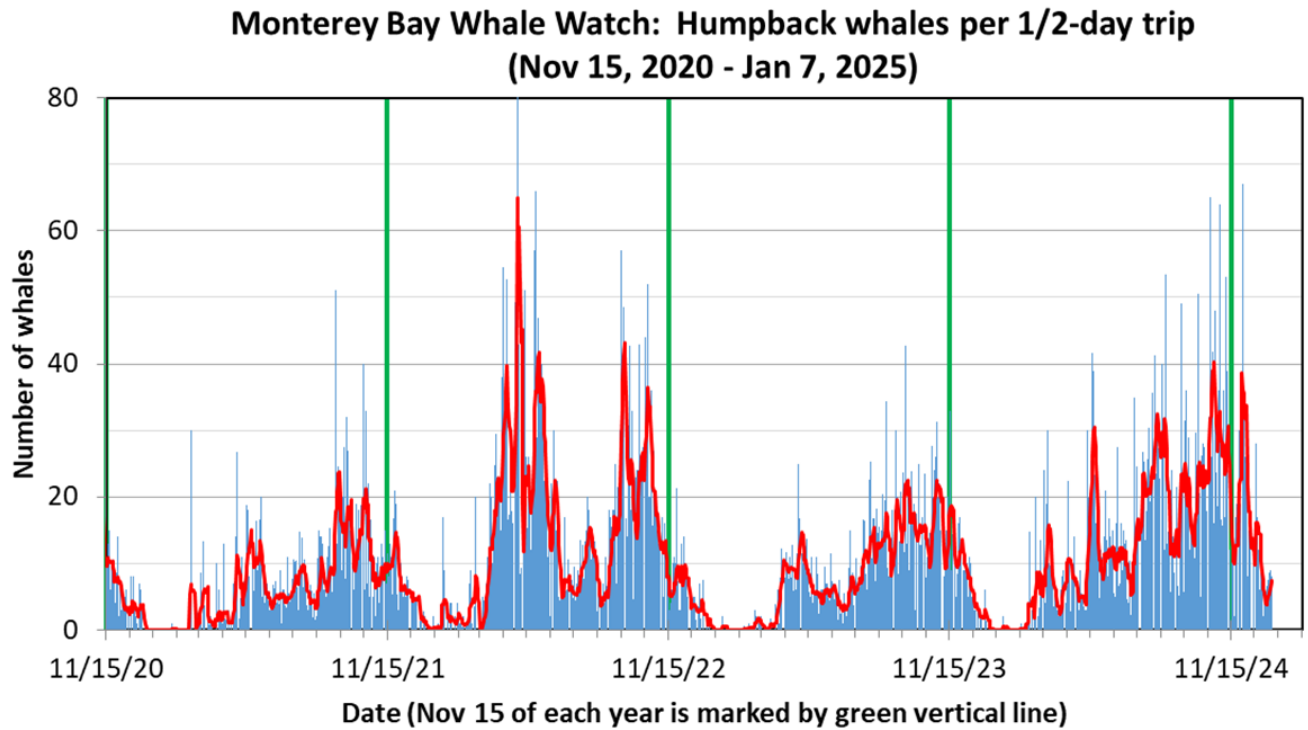


Figure 1. Standardized number of humpback whale sightings for Monterey Bay Whale Watch from November 15, 2020 – December 7, 2025. The y-axis is the number of whales per half-day trip; the thin blue bars are the average daily whale numbers, and the red line is a 7-day running average to make the patterns a bit easier to see. A vertical green line has been added at November 15 of each year for reference. Each tick mark is one month.

IV. Management Considerations

I. Information from NOAA: § 132.8(d)(2)

During the 2024 annual entanglement review conducted by NOAA, an unconfirmed entanglement was upgraded to confirmed. It is currently pending review by CDFW.

The entanglement was reported on October 28, 2024, of a humpback whale with unidentified fishing gear. There is no photo documentation but the line was reported to be a thick light or white colored line with brown fouling present. The line was wrapped around the right pectoral flipper and no gear was seen on the flukes. The entanglement was reported 5nm southwest of Point Mugu in Ventura County.

II. Historic patterns and current Actionable Species migration: §132.8(d)(6) and (11)

Data provided by: Point Blue Conservation Science and Monterey Bay Whale Watch (processed by Karin Forney NOAA SWFSC)

A. Point Blue Conservation Science (Fishing Zones 3, 4, and 6)

For current observation data please see the [Point Blue Whale Alert map](#).

Table 5. Summary of available humpback and blue whale recorded reported via Point Blue Conservation Science in Fishing Zones 3, 4, and 6 during the seven-day period ending January 10, 2025.

Fishing Zone	Number of humpback whales sighted	Number of blue whales sighted
Zone 3	0	0
Zone 4	0	0
Zone 6	0	0

B. Monterey Bay Whale Watch (Fishing Zone 4)

The semi-monthly average number of humpback whales per half day trip in southern Monterey Bay remains elevated compared to the historical average for this time of year (Figure 2).

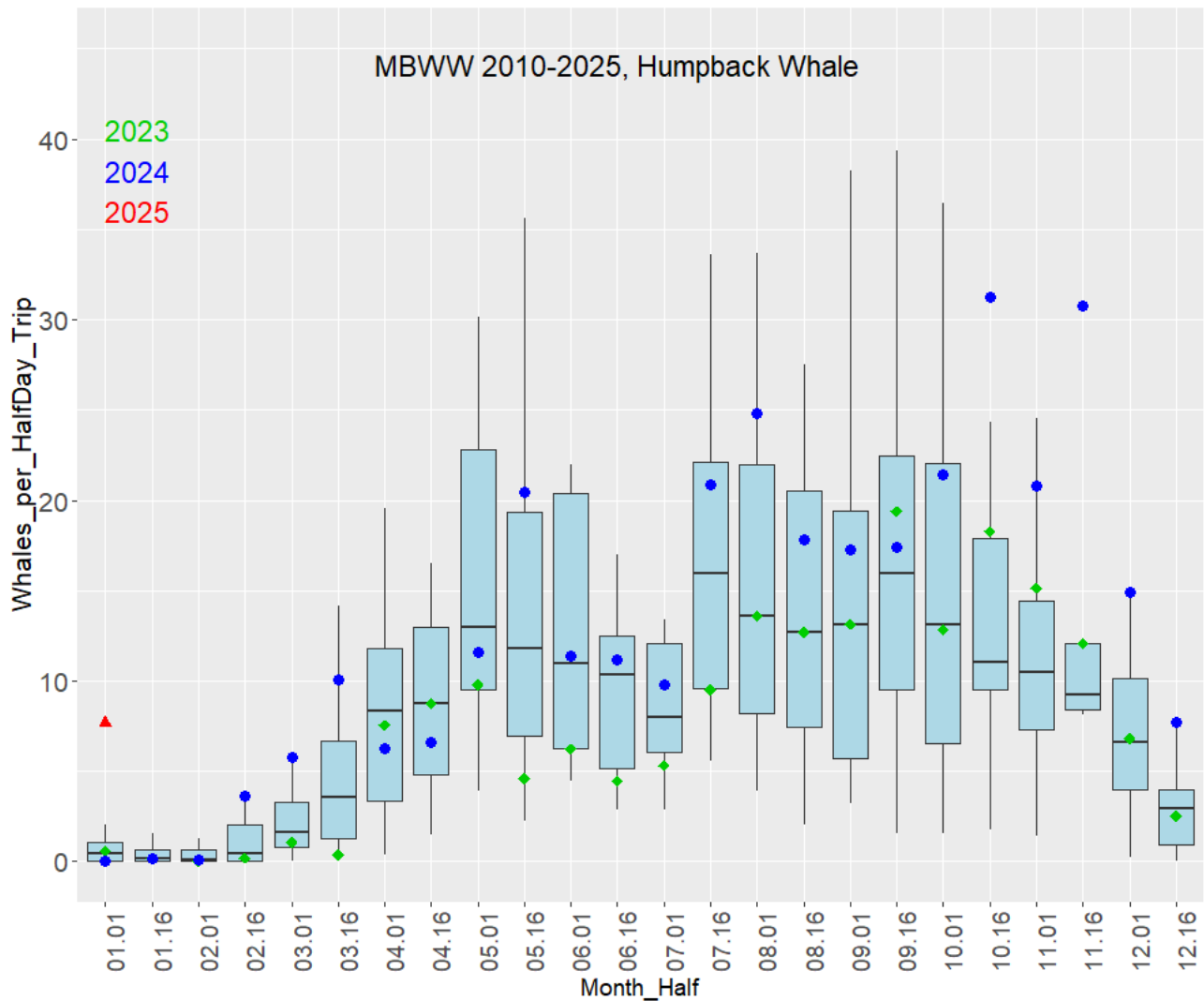


Figure 2. Historical Monterey Bay Whale Watch data for 2010-2025, summarizing the average and variation in the number of humpback whales per half-day trip on a semi-monthly basis (1st- 15th, 16th- end of month). This boxplot follows standard statistical practice in that the black horizontal line is the average number of whales; the blue box shows the 25th-75th percentiles (i.e., half of all past whale numbers are within the blue box); the vertical lines show the range of whale numbers excluding outliers, and outliers are shown as small black dots. Values for 2023 (green diamonds), 2024 (blue dots) and 2025 (red triangles) and are provided for reference, placing recent whale numbers in a historical context.

C. Whale Watch 2.0 (All Fishing Zones)

No new available data, please see the [December 16, 2024 Preliminary Assessment and Available Data document](#) for latest data or visit the [NOAA Coastwatch Habitat Suitability map](#).

III. Fishing Season dynamics: § 132.8(d)(7)

A. Marine Landings Data System (All Fishing Zones)

Data provided by: California Department of Fish and Wildlife. *CDFW data presented in this section are preliminary and subject to revision.

Fishing Zones 3-6 are open as of January 5, 2025, under a 50% Gear Reduction. Fishing Zones 1-2 will open on January 15, 2025, under a 25% Gear Reduction. A summary of landings information as of January 13, 2025, is provided below (Table 6).

Table 6. Summary of fishing season dynamics information for the commercial fishery, as of January 13, 2025.

Metric	Value	Additional Info
Season status	Open in Fishing Zones 3-6 with a 50% Gear Reduction	NA
Number of daily landings	413	NA
Total volume (pounds)	950,329	NA
Total Ex-Vessel Value	\$5,401,066	NA
Average unit price	\$5.67	NA
Total number of active vessels	151	NA
Maximum potential traps (based on maximum active permits to date)	23,300	Note: estimated maximum potential traps reflects the 50% Gear Reduction in Fishing Zones 3-6.

IV. Distribution and abundance of key forage: §132.8(d)(8)

A. MBARI Krill Model

Please see the [December 16th Preliminary Assessment and Available Data document](#) for latest information or visit the [MBARI website](#) for more information.

V. Ocean conditions: §132.8(d)(9)

A. El Niño/Southern Oscillation (ENSO) Diagnostic

Please see the [December 16th Preliminary Assessment and Available Data document](#) for latest information or visit the [NOAA ENSO Diagnostic webpage](#) for more information.

B. Large Marine Heatwave Tracker

Please see the [December 16th Preliminary Assessment and Available Data document](#) for latest information or visit the [NOAA Marine Heatwave Tracker webpage](#) for more information.

C. Habitat Compression Index

Please see the [December 16th Preliminary Assessment and Available Data document](#) for latest information or visit the [NOAA Habitat Compression Index webpage](#) for more information.

VI. Effectiveness of management measures: §132.8(d)(3)

Data provided by: California Department of Fish and Wildlife

CDFW's effectiveness evaluation for the Management Actions specified in §132.8(e) are provided above in the Initial Assessment.

VII. Total economic impact to the fleet: §132.8(d)(4)

Data provided by: California Department of Fish and Wildlife

The RAMP regulations specify that, when deciding amongst multiple management measures which would equivalently reduce entanglement risk, CDFW shall consider total economic impact to the fleet and fishing communities.

VIII. Current Impact Score Calculation: §132.8(d)(10)

Data provided by: California Department of Fish and Wildlife

See Table 3 for the current fishing season and calendar year Impact Score. For more information about Impact scoring, please review the [Impact Score FAQ](#).