

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

Last updated: December 3, 2024

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:

- Continue Season Delay: All Fishing Zones (1, 2, 3, 4, 5, and 6)
 - Note: Fishing Zones 1 and 2 are expected to be delayed due to quality testing results (Fish and Game Code Section 8276.2) until at least December 31, 2024.

Recreational Fishery:

- Continue Crab Trap Prohibition: Fishing Zones 3 and 4
 - Note: A portion of Fishing Zone 1 (CA/OR border to Reading Rock) is currently closed due to [elevated domoic acid levels](#).
- Fleet Advisory: All Fishing Zones

Contents

PRELIMINARY ASSESSMENT	- 1 -
I. Management Recommendation Summary Rationale	- 2 -
II. Alternative Management Actions for the Commercial Fishery	- 3 -
AVAILABLE DATA.....	- 4 -
III. Triggers Requiring Management Action	- 4 -
IV. Management Considerations.....	- 8 -

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	Closed	Season Delay	Closed due to Domoic Acid (CA/OR border to Reading Rock)	Closed due to Domoic Acid (CA/OR border to Reading Rock)
2	Closed	Season Delay	Fleet Advisory	Fleet Advisory
3	Season Delay	Season Delay	Crab Trap Prohibition; Fleet Advisory	Crab Trap Prohibition; Fleet Advisory
4	Season Delay	Season Delay	Crab Trap Prohibition; Fleet Advisory	Crab Trap Prohibition; Fleet Advisory
5	Season Delay	Season Delay	Fleet Advisory	Fleet Advisory
6	Season Delay	Season Delay	Fleet Advisory	Fleet Advisory

I. Management Recommendation Summary Rationale

Marine Region’s preliminary recommendation is for the Director to continue the delay of the commercial fishery in Fishing Zones 1-6. In addition, the commercial fishery opener in Fishing Zones 1 and 2 is expected to be further delayed pursuant to Fish and Game Code Section 8672.2 (due to quality testing results) until at least December 31, 2024. **The Marine Region also recommends the continued prohibition of recreational crab traps in Fishing Zones 3 and 4 and to continue the Fleet Advisory for all Fishing Zones (1-6) until the next Risk Assessment.** These recommendations are a result of the exceedance of Marine Life Concentration data triggers and known migration patterns for humpback whales in all Fishing Zones. The recommendation is also supported by the high number of entanglements that occurred during the current 2024 calendar year and 3-year average Impact Score for the commercial fishery.

It is anticipated that the delay and trap prohibition for commercial and recreational fishery would be in place until at least the next Risk Assessment, which is expected to occur on or around December 20, 2024. That assessment will inform a potential commercial fishery opener on or around January 1, 2025, and/or a lifting of the trap restriction for the recreational fishery.

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 Dec. 2, 2024. Humpback whale entanglements in California commercial Dungeness crab fishing gear and Unknown Fishing Gear bring the three-year rolling average Impact Score to 5.40 (subject to revision), which exceeds the trigger as defined in RAMP for the commercial Dungeness crab fishery. Note: the entanglement reported on November 22, 2024, has yet to be evaluated.

Marine Life Concentrations: Marine Life Concentration (MLC) surveys in Fishing Zones 1, 3, 4, 5, and 6, humpback whale and blue whale sightings remain high as of the last [risk assessment, dated November 21, 2024](#). Supplementary surveys were conducted to evaluate entanglement risk as follows. A joint Coast Guard/CDFW enforcement flight observed 14 humpback whales in Fishing Zone 1 on Nov. 26, 2024. A NOAA aerial survey observed 14 humpbacks whales on a single transect line in Fishing Zone 4 and 28 humpbacks whales in Fishing Zone 5 on Dec. 1, 2024. Monterey Bay Whale Watch data indicated an average number of humpback whales-per-half-daytrip during the last seven days of 35.5, with a peak of 67 whales observed during a half-day trip on Nov. 28, 2024.

For additional details, see the Entanglement and Marine Life Concentration sections of this Available Data document.

II. Alternative Management Actions for the Commercial Fishery

Alternatives Considered but Rejected

- Gear Reduction - given the exceedance of the statewide entanglement Impact Score and elevated risk due to concentrations of humpback whales, this was not the recommended Management Action.
- Depth Restriction - given the current exceedance of the statewide entanglement Impact Score and distribution of humpback whales across depths, a depth restriction may inadvertently concentrate trap gear, thereby increasing entanglement risk.
- 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. Many entanglements categorized as “Unknown Fishing Gear” are actively being reviewed by NMFS staff and are subject to revision as new data becomes available. See [“FAQ: Impact Scoring for the Risk Assessment and Mitigation Program”](#) for information about the RAMP Impact Score.

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

Entanglement ID	Date	Species	Fishery	Impact Score
20241122Mn	11/22/24	Humpback whale	Unknown Fishing Gear*	0.38
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 (2024)	3-Year Rolling Average
Humpback whales	0	6.42	5.53
Leatherback sea turtle	0	1	0.33

As of December 2, 2024, there have been no Confirmed Entanglements of blue whales or leatherback sea turtles during the 2024 calendar year.

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

Data provided by: Scott Benson and Karin Forney (NOAA SWFSC), 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	CDFW Aerial Survey	N/A
Zone 2	CDFW Aerial Survey	N/A
Zone 3	CDFW Aerial Survey	N/A
Zone 4	NMFS Aerial Survey, MBWW	Yes
Zone 5	NMFS Aerial Survey	Yes
Zone 6	None	N/A

A. CDFW Surveys (Fishing Zones 1-3)

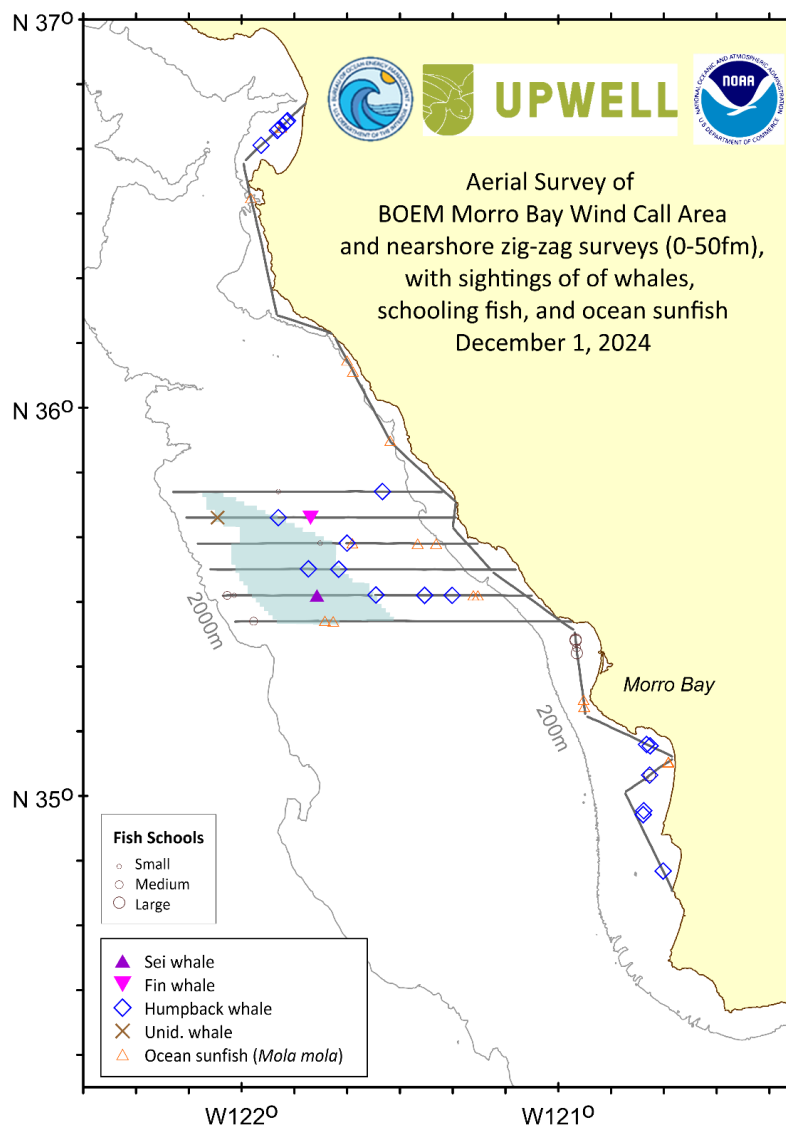
CDFW conducted a joint enforcement operations flight with the U.S. Coast Guard on November 26, 2024, from Point Reyes to the CA/OR border. Flight operational needs limited survey effort, however, 14 humpback whales were observed in Fishing Zone 1.

B. NMFS Aerial Surveys (Fishing Zones 4-5)

Aerial surveys were conducted on December 1, 2024 within Fishing Zones 4 and 5. The surveys covered east-west transects from the coast to the offshore extent of the Morro

Bay Wind Call area, as part of a separately funded study for the Bureau of Ocean Energy Management (Figure 2). In addition, the team surveyed a zigzag pattern between the coast and the 50-fm (92-m) isobath from Purisima Point (Santa Barbara County) to Moss Landing (Monterey County), to assess the presence of humpback whales, blue whales, leatherback turtles, and ecosystem indicator species [jellies, schooling fish, krill, and ocean sunfish (*Mola mola*)].

During the aerial survey, 20 sightings of 42 individual humpback whales were documented. In Fishing Zone 4, the team documented six sightings of 14 whales on the single transect line covering southern Monterey Bay. In Fishing Zone 5, the team documented 14 sightings of 28 humpback whales, with a nearshore feeding aggregation observed in shallow waters between Pt. San Luis and Pt. Sal in San Luis Obispo County, and other humpback whales scattered throughout deeper waters between Point Estero and about Ragged Point.



(Source: Scott Benson and Karin Forney, NOAA/SWFSC)

Figure 2. Aerial survey track lines and observations of large whales, ocean sunfish, and schooling fish on December 1, 2024.

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

Monterey Bay Whale Watch conducted whale-watching trips in southern Monterey Bay on five of seven days during the week of November 24-30, 2024. The 7-day average number of humpback whales-per-half-day-trip during November 24-30 2024 was 35.5 with a peak of 67 humpback whales observed on two separate half-day trips on November 28, 2024 (Figure 3).

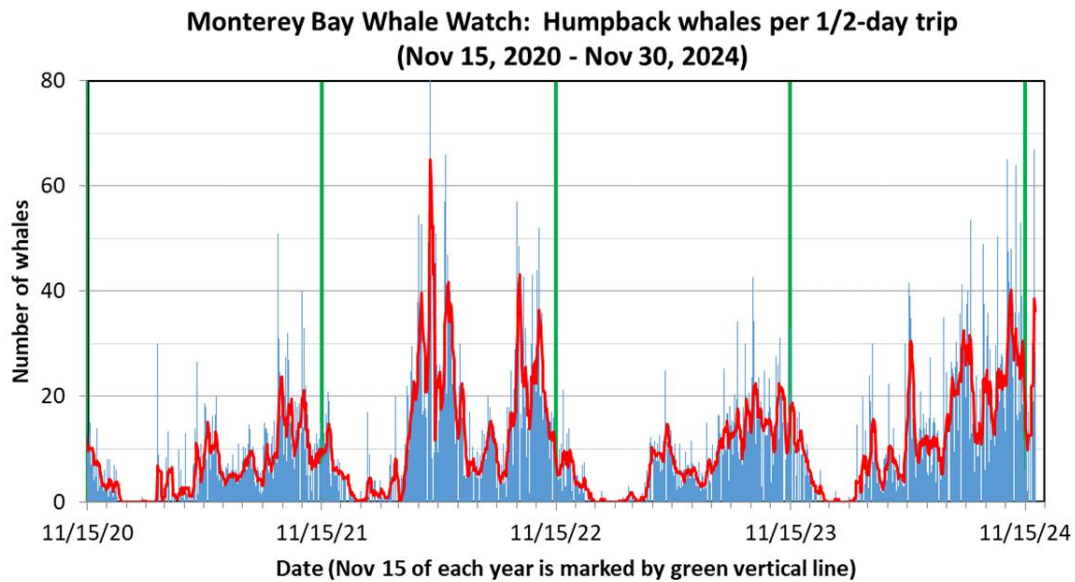


Figure 3. Standardized number of humpback whale sightings for Monterey Bay Whale Watch from 15 November 2020 – 30 November 2024. The y-axis is the number of whales per half-day trip; the thin blue bars are the average daily whale numbers, and the red line is a 7-day running average. A vertical green 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)

Data provided by: Lauren Saez and Dan Lawson (NMFS)

One new humpback whale entanglement was reported with unknown fishing gear near Point Conception on November 22, 2024.

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

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

A. Monterey Bay Whale Watch (Fishing Zone 4)

The semi-monthly average number of humpback whales-per-half-day-trip in southern Monterey Bay is much greater than the historical average for this time of year (Figure 4). Two blue whales were documented on October 16, 2024, but none have been observed since.

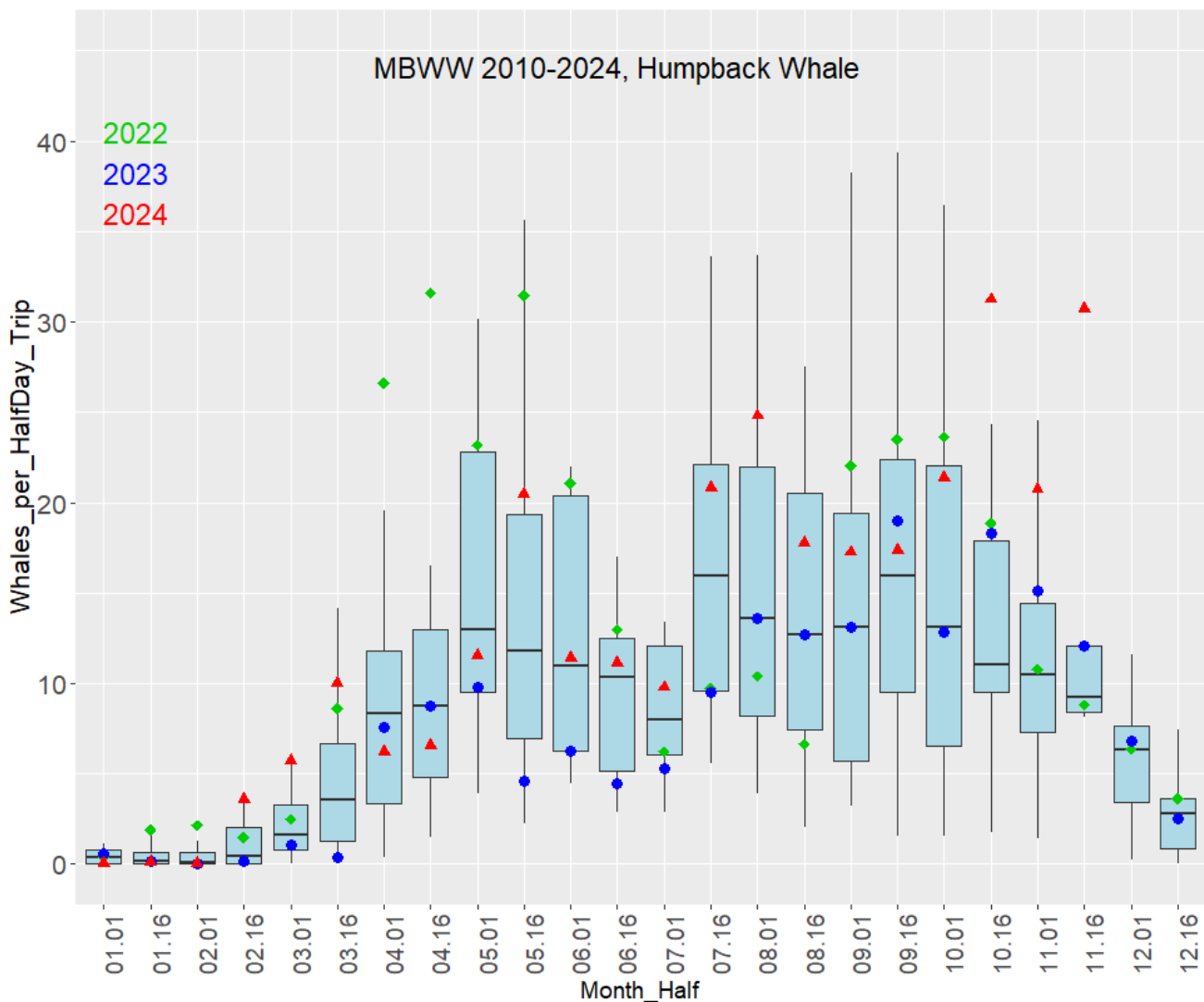


Figure 4. Historical Monterey Bay Whale Watch data for 2010-2024, summarizing the average and variation in the number of humpback whales per half-day trip on a semi-monthly basis (1st- 15th, 16th- end of month). This boxplot follows standard statistical practice in that the black horizontal line is the 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 2022 (green diamonds), 2023 (blue dots) and 2024 (red triangles) and are provided for reference, placing recent whale numbers in a historical context.

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

A. Domoic Acid and Quality Testing

Data provided by: California Department of Public Health, California Department of Fish and Wildlife

Domoic Acid

- The recreational Dungeness crab fishery was closed in northern California based on results from crab collected on 10/12/2024. [Test results from crab collected on 11/8/2024](#) indicate that one of the two locations requires at least two more retests.
- Results from crab samples collected 11/26/2024 are anticipated to be available by 12/6/2024.
 - The recreational fishery remains closed from the southern boundary of Reading Rock State Marine Reserve (41° 17.600' N. lat.) north to the California and Oregon border (42° 0.000' N. lat.).

Quality Testing

- Quality test logistics are currently on hold pending domoic test results from Fishing Zone 1 and may be scheduled for the week of December 15.