



2025-2026 Risk Assessment

California Department of Fish and Wildlife

Preliminary Assessment and Available Data for Risk Assessment Mitigation Program

Last updated: December 15, 2025

PRELIMINARY ASSESSMENT

This Preliminary Assessment and Management Recommendation has been developed by the California Department of Fish and Wildlife’s (CDFW) Marine Region to inform the Risk Assessment Mitigation Program (RAMP; Section 132.8, Title 14, California Code of Regulations). A Final Assessment and Management Recommendation will be prepared after conferring with the Working Group on December 17, 2025.

Recommended Management Actions

Commercial Fishery:

- Fishing Zones 1 and 2: Season Opener with 25% Gear Reduction. Note: The season will be delayed until at least January 15, 2026, due to domoic acid and crab quality testing requirements not being met.
- Fishing Zones 3, 4 and 5: Season Opener with a 50% Gear Reduction, effective January 5, 2026, at 12:01am. Gear setting period to begin on January 2, 2026, at 8:01am.

Recreational Fishery:

- Fishing Zones 1, 3 and 4: Lift Crab Trap Prohibition, effective January 2, 2026, at 8:01am.
- Fishing Zones 2 and 5: No RAMP Management Actions recommended.

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I. Management Recommendation Summary Rationale

For the commercial fishery, Marine Region's preliminary recommendation is for the Director to open the Fishing Season in Fishing Zones 3, 4 and 5 on January 5, 2026, at 12:01am, under a 50% Gear Reduction. A gear setting period for Fishing Zones 3-5 would begin on January 2, 2025, at 8:01am. **Marine Region also recommends that Fishing Zones 1 and 2 open with a 25% Gear Reduction once domoic acid and quality testing requirements are met.** Currently, Fishing Zones 1 and 2 will be delayed until at least January 15, 2026, pending testing requirements.

For the recreational fishery, Marine Region recommends lifting the Crab Trap Prohibition in Fishing Zones 1, 3 and 4, effective January 2, 2026, at 8:01am.

These recommendations represent a precautionary approach to address the exceedance of Marine Life Concentration data triggers in Fishing Zones 3 and 4 and to minimize the potential for entanglement. This is important because groups of humpback whales were recently observed in areas that overlap the commercial fishing grounds, particularly in Fishing Zone 3. Surveys and known migration patterns for humpback whales indicate that whales are leaving California waters for their winter breeding grounds. In addition, during the 2025 calendar year, there were three entanglements in California commercial Dungeness crab fishing gear and five entanglements in unknown fishing gear that could be from the commercial fishery reported in Fishing Zones 1, 4 and 5. One humpback entanglement was confirmed to have been entangled in gear set in Fishing Zone 1, but gear set locations resulting in entanglements are often unknown. Therefore, it is important to reduce risk across all Fishing Zones by reducing vertical lines as whales continue to leave important fishing areas.

It should be noted that gear reduction during the 2025 season and improved lost gear recovery efforts across ports likely contributed to a modest reduction in entanglements over the prior calendar year (2024), when there were four entanglements involving California commercial Dungeness crab gear and ten entanglements in unknown fishing gear. Beginning with the 2025-26 fishing season, line marking requirements will aid in the identification of entanglements when they do occur and support Marine Region's efforts to continue to refine the application of Management Actions under RAMP.

Management actions will be re-evaluated at the next Risk Assessment, which is expected to occur in mid-January 2026. CDFW will continue to closely monitor Actionable Species abundances in state waters and quickly implement Management Actions as necessary to reduce entanglement risk, particularly in the spring months when humpback whales return to California waters.

Entanglements: No new entanglements have been reported since the last Working Group meeting on Oct. 22, 2025.

Marine Life Concentrations: Marine Life Concentration (MLC) data are summarized in the table below where triggers were exceeded:

Fishing Zone	Data Source	MLC Data	Date
3	CDFW Aerial Survey	21 humpback whales	12/09/25
3	CDFW Aerial Survey	34 humpback whales	12/11/25
4	Monterey Bay Whale Watch	7.9, seven-day average number of humpback whales per-half-day trip	12/4-12/10/25

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

- Depth Restriction- will not sufficiently provide protection due to distribution of humpback whales across depths and may concentrate trap gear thereby increasing entanglement risk.
- Alternative Gear- can be authorized after April 1st by the Director of CDFW.

Note: Sub Sea Sonics/Gurdian Ropeless Systems have been authorized as an approved Alternative Gear and will be available for use after a Fishery Closure under RAMP after April 1, 2026. Additional information will be made available on the Whale Safe Fisheries Webpage.

AVAILABLE DATA

III. Triggers Requiring Management Action

I. Confirmed Entanglements: §132.8(a)(4); Information from NOAA: §132.8(d)(2); and Triggers for Management Action: §132.8(c)

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

The table below outlines the confirmed entanglements under RAMP beginning with the 2025 calendar year. See “[2025-2026 Commercial Dungeness Crab Fishery - Frequently Asked Questions \(FAQs\)](#)” for information about the RAMP Entanglement Evaluation. More information and definitions, please see the [RAMP Entanglement History](#) document.

As of December 15, 2025, there have been zero Confirmed Entanglements of blue whales or leatherback sea turtles during the 2025 calendar year.

Table 1. Actionable Species Entanglements beginning in 2025, pursuant to RAMP regulations.

Entanglement ID	Date	Species	Fishery
20251009Mn	10/09/25	Humpback whale	Unknown Fishing Gear
20250927Mn	09/27/25	Humpback whale	Unknown Fishing Gear
20250917Mn	09/17/25	Humpback whale	CA commercial Dungeness crab
20250711Mn	07/11/25	Humpback whale	Unknown Fishing Gear
20250607Mn	06/07/25	Humpback whale	CA commercial Dungeness crab
20250506Mn	05/06/25	Humpback whale	Unknown Fishing Gear
20250501Mn	05/01/25	Humpback whale	Unknown Fishing Gear
20250414Mn	04/14/25	Humpback whale	CA commercial Dungeness crab
20250322Mn	03/22/25	Humpback whale	CA commercial Dungeness crab *resight

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

Data provided by: California Dept of Fish and Wildlife, Karin Forney (Upwell), Jess Morten (Office of National Marine Sanctuaries/California Marine Sanctuary Foundation), Scott Benson (Upwell), Monterey Bay Whale Watch (processed by Karin Forney, Upwell)

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 21. Summary of available CDFW-approved survey data for Marine Life Concentrations for each Fishing Zone, and whether the triggers have been met for any Fishing Zone.

Fishing Zone	CDFW-approved survey data	Triggers attained?
Zone 1	CDFW/USCG Aerial Survey, CDFW Aerial Survey	No
Zone 2	CDFW/USCG Aerial Survey, CDFW Aerial Survey	No
Zone 3	CDFW Aerial Survey	Yes
Zone 4	CDFW Aerial Survey, MBWW	Yes
Zone 5	CDFW Aerial Survey, NOAA ONMS/CMSF Aerial Survey	No

A. CDFW Surveys (Fishing Zones 1-5)

CDFW conducted three aerial surveys between November 24 and December 11, 2025 (Table 3).

November 24, 2025 Flight Summary: CDFW conducted an aerial survey covering Fishing Zones 1, 2 and 3 (Figure 1). CDFW flew from Bodega Bay (Fishing Zone 3) to the Oregon border (Fishing Zone 1) between the coast and the 100-fathom depth contour line. Low-lying fog caused a break in the survey transect between Point Arena and Fort Bragg. Survey elevation was 1000' for most of the survey except for a few instances at 600-700' due to cloud cover. Conditions were generally favorable ranging from Beaufort states 1-3. Calm conditions (Beaufort 1-2) were observed in areas around Bodega Bay and northward of Fort Bragg. Beaufort 3 was observed around northern Sonoma County from Stewart's Point to Shelter Cove. Observers recorded three humpback whales in Fishing Zone 1 and two unidentified whales in Fishing Zone 3. No whales were observed in Fishing Zone 2.

December 9, 2025 Flight Summary: CDFW conducted an aerial survey covering Fishing Zones 3, 4 and 5 completing inshore/offshore transect lines between Half Moon Bay and Monterey Bay and the zig-zag transect lines between Pebble Beach and Morro Bay (Figure 2). Observer team recorded 21 humpback whales and three unidentified whales in Fishing Zone 3, nine humpback whales in Fishing Zone 4, and one unidentified whale in Fishing Zone 5. Conditions ranged from Beaufort state 1 to 3.

December 11, 2025 Flight Summary: CDFW conducted an aerial survey in Fishing Zone 3 between San Francisco and Jenner, along the coast and the 100-fathom depth contour line (Figure 3). The survey was cut short due to low-lying fog north of Jenner. Conditions were generally favorable ranging from Beaufort states 1-3. Observer staff recorded 34 humpback whales and one unidentified whale.

Table 3. Counts of Actionable Species seen by CDFW aerial surveys conducted between November 24 – December 11, 2025.

Survey Date	Fishing Zone	Humpback whales	Unidentified whales
11/24/2025	Zone 1	3	0
11/24/2025	Zone 2	0	0
11/24/2025	Zone 3	0	2
12/09/2025	Zone 3	21	3
12/09/2025	Zone 4	9	0
12/09/2025	Zone 5	0	1
12/11/2025	Zone 3	34	1

CDFW Aerial Survey Nov. 24, 2025

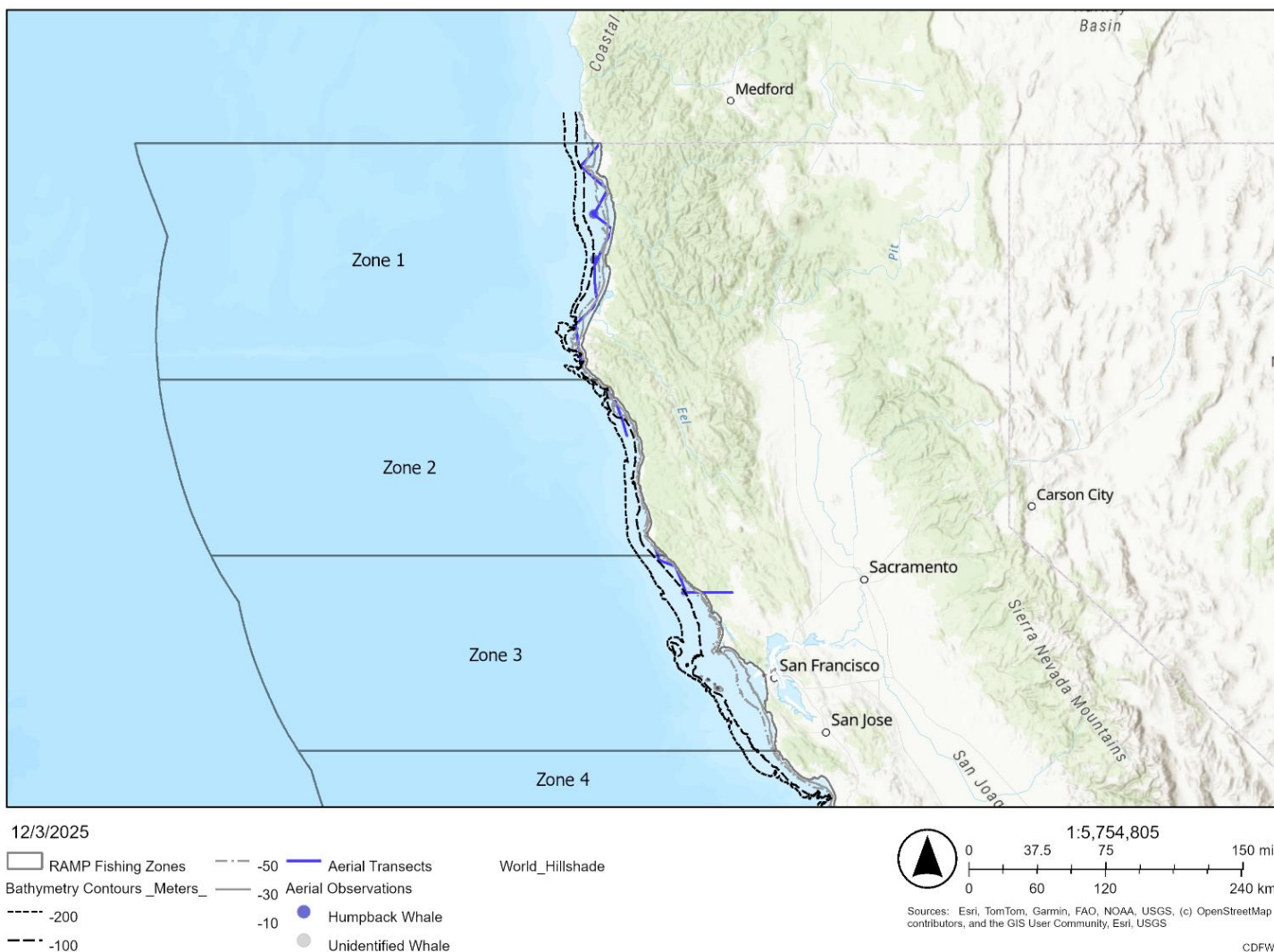
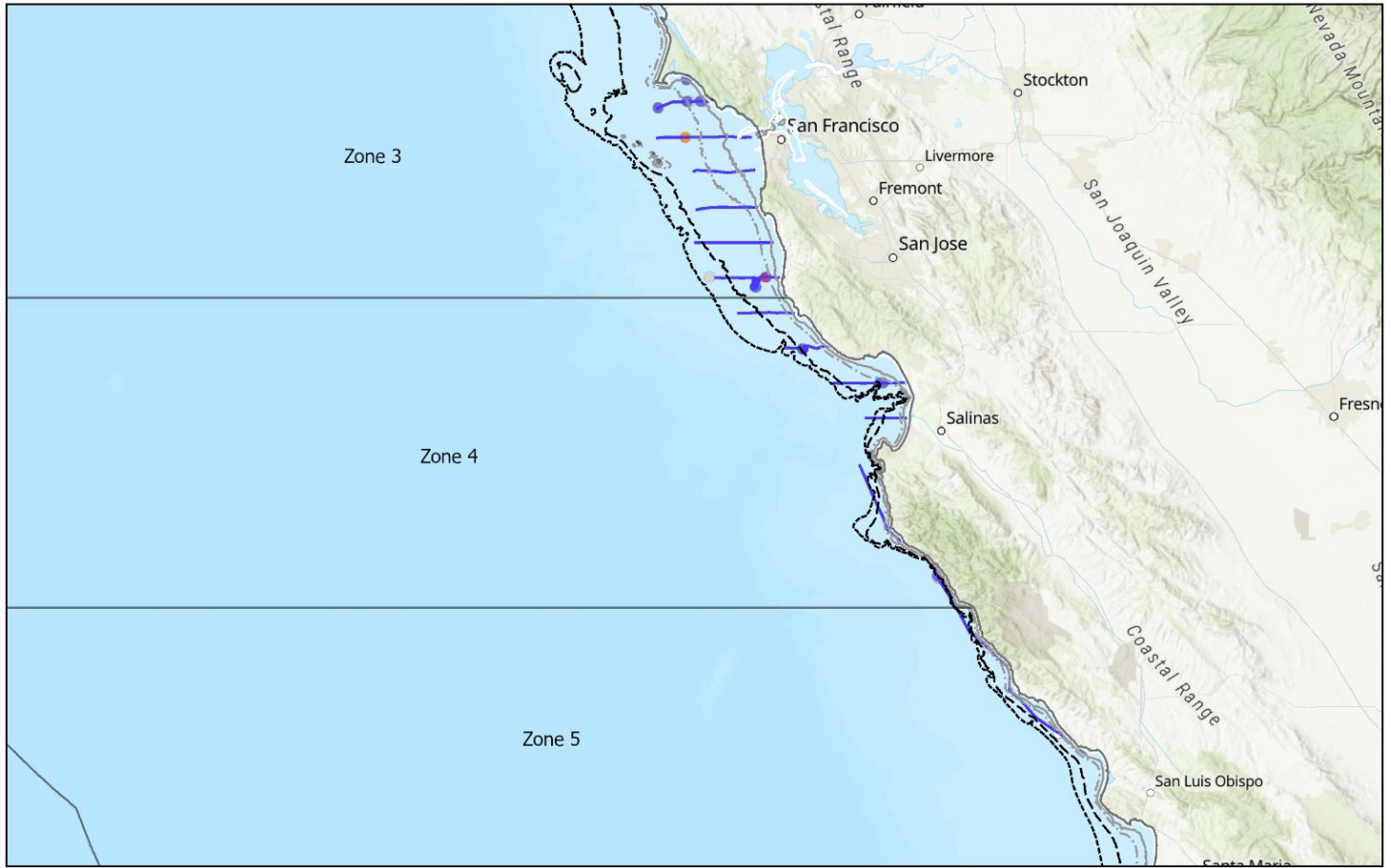


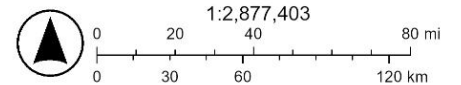
Figure 1. Map of CDFW aerial survey conducted on November 24, 2025.

CDFW Aerial Survey - Dec. 9, 2025



12/10/2025

- | | | | | |
|---------------------------------|---------------------|------------------|-----------------|-------|
| RAMP Fishing Zones | -50 | Aerial Transects | Single Trap | Other |
| Bathymetry Contours_Meters_ -30 | Aerial Observations | Mola | World_Hillshade | |
| -200 | Humpback Whale | Bait Ball | | |
| -100 | Unidentified Whale | | | |



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Esri, USGS

CDFW

Figure 2. Map of CDFW aerial survey conducted on December 9, 2025.

CDFW Aerial Survey - Dec. 11, 2025

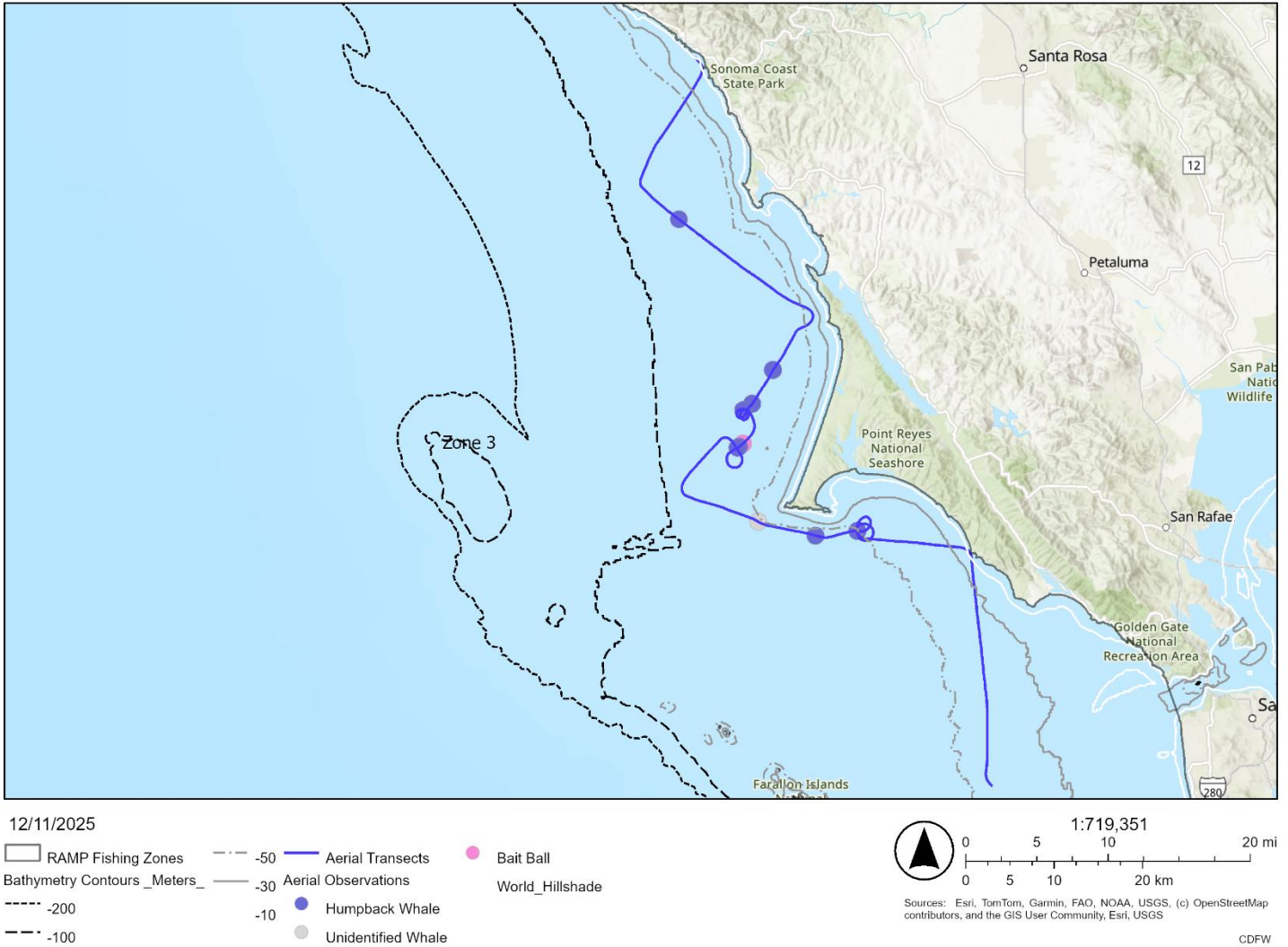


Figure 3. Map of CDFW aerial survey conducted on December 11, 2025.

B. CDFW/US Coast Guard (Fishing Zone 1-2)

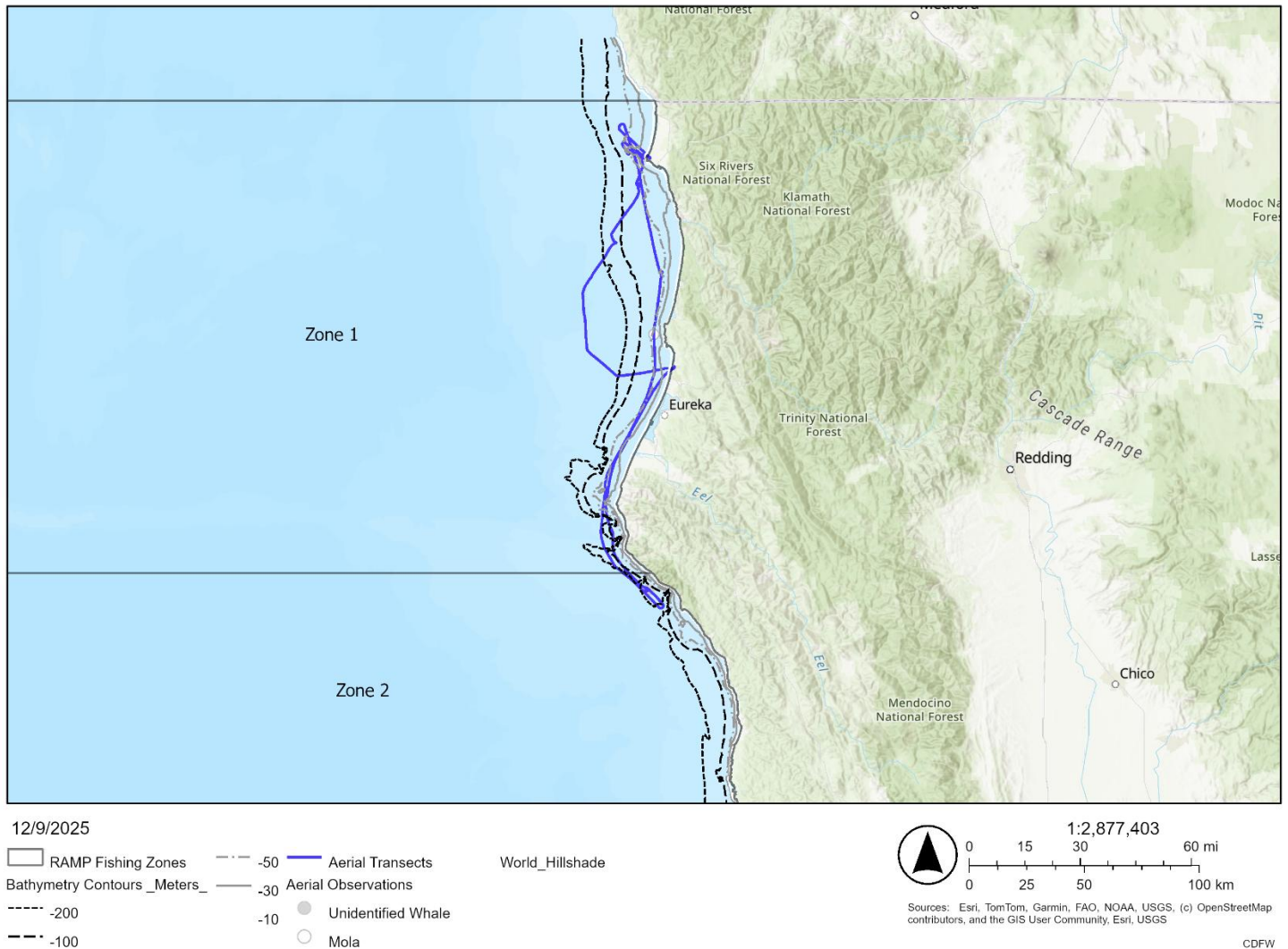
On December 4, 2025, the U.S. Coast Guard (USCG) conducted an aerial survey from the coast to the just beyond the 75-fathom contour line at an altitude of 300-500 ft covering Fishing Zone 1 from the mouth of the Smith River just south of the CA-OR border to Shelter Cove (Fishing Zone 2) (Figure 4). Most of the survey took place between the 20 and 50-fathom contours. Conditions were ideal (Beaufort scale = 1-3) for a majority of the survey with the exception of Cape Mendocino to Shelter Cove and in a few areas offshore Del Norte County where wind chop was present (Beaufort scale = 3-5). Nine unidentified whales were observed but no confirmed Actionable Species were observed during the survey (Table 4). Most of the whales observed (n=8) were likely gray whales just off Point St. George in about 10-15 fathoms.

Table 4. Summary of joint CDFW/USCG aerial survey in Fishing Zone 1 and 2 on Dec. 4, 2025.

Fishing Zone	Humpback whales	Unidentified whales
Zone 1	0	8
Zone 2	0	1

Figure 4. Map of joint CDFW/USCG aerial survey conducted on December 4, 2025.

CDFW/USCG Aerial Survey - Dec. 4, 2025



C. NOAA ONMS/CMSF Aerial Surveys (Fishing Zone 5)

NOAA Office of National Marine Sanctuaries (ONMS) and California Marine Sanctuary Foundation (CMSF) teams conducted an aerial survey on December 3, 2025, in Fishing Zone 5 and areas south of Point Conception (Figure 5). Observers recorded two humpback whales.

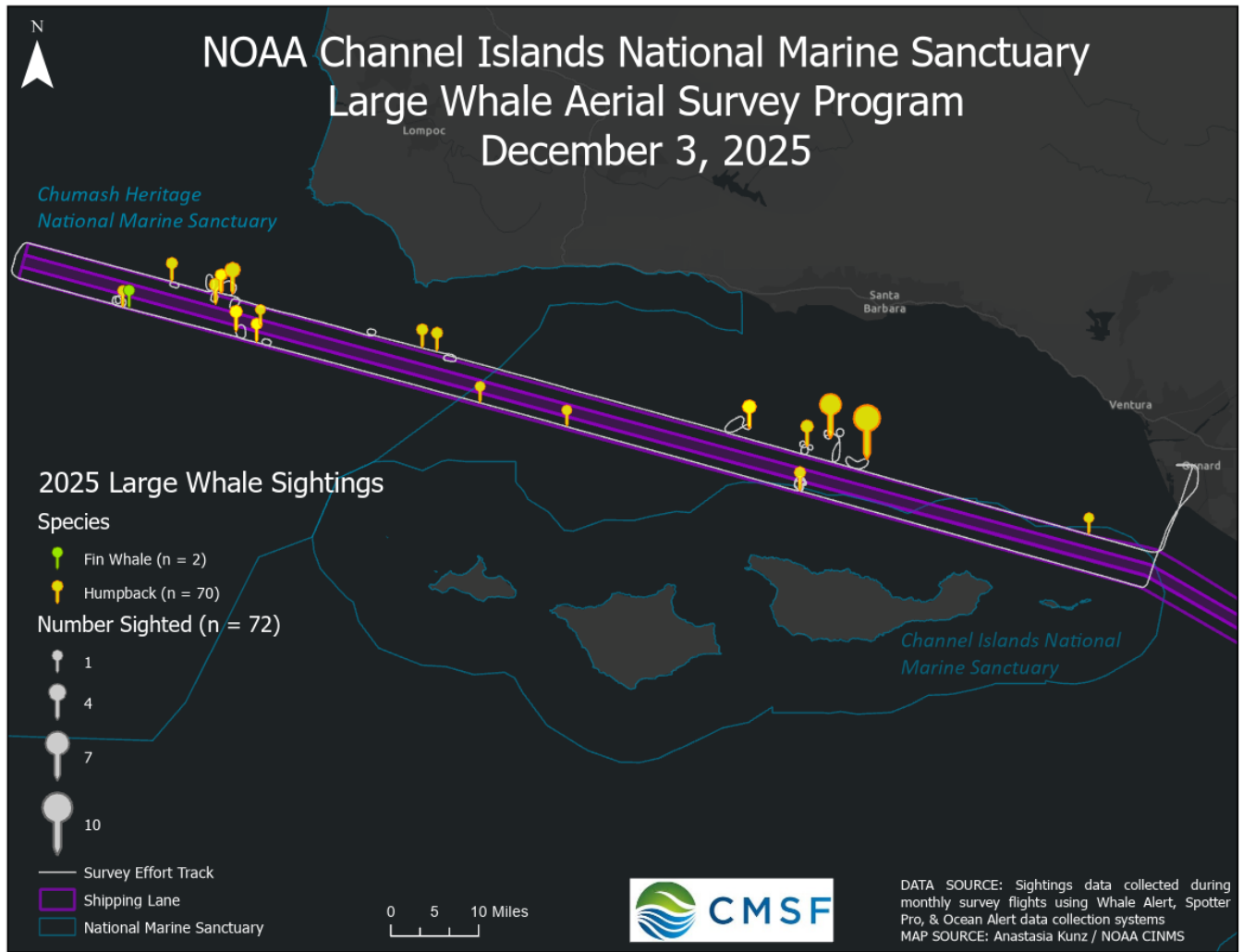


Figure 5. Map of aerial survey conducted by NOAA ONMS/CMSF on December 3, 2025.

D. Upwell Leatherback Sea Turtle Telemetry

The leatherback sea turtle that was captured and tagged approximately 7 miles southwest of Pillar Point, CA on September 23, 2025, is now 850 miles east of Hawaii and moving in a southwest direction (Figure 6).



Figure 6. Map of satellite tagged leatherback sea turtle (Ricky Ricardo) track from Sept. 23, 2025 to Dec. 10, 2025.

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

Monterey Bay Whale Watch conducted whale watching trips in southern Monterey Bay every day during the week of December 4-10, 2025. The 7-day average number of humpback whales per half day trip was 7.9, with a peak of 14 humpback whales observed during a morning trip on December 10, 2025 (Figure 7). Three blue whales were observed during August 2025, and one blue whale was observed on 15 September 2025, but none have been observed since.

**Monterey Bay Whale Watch: Humpback whales per 1/2-day trip
(Nov 15, 2021 - Dec 10, 2025)**

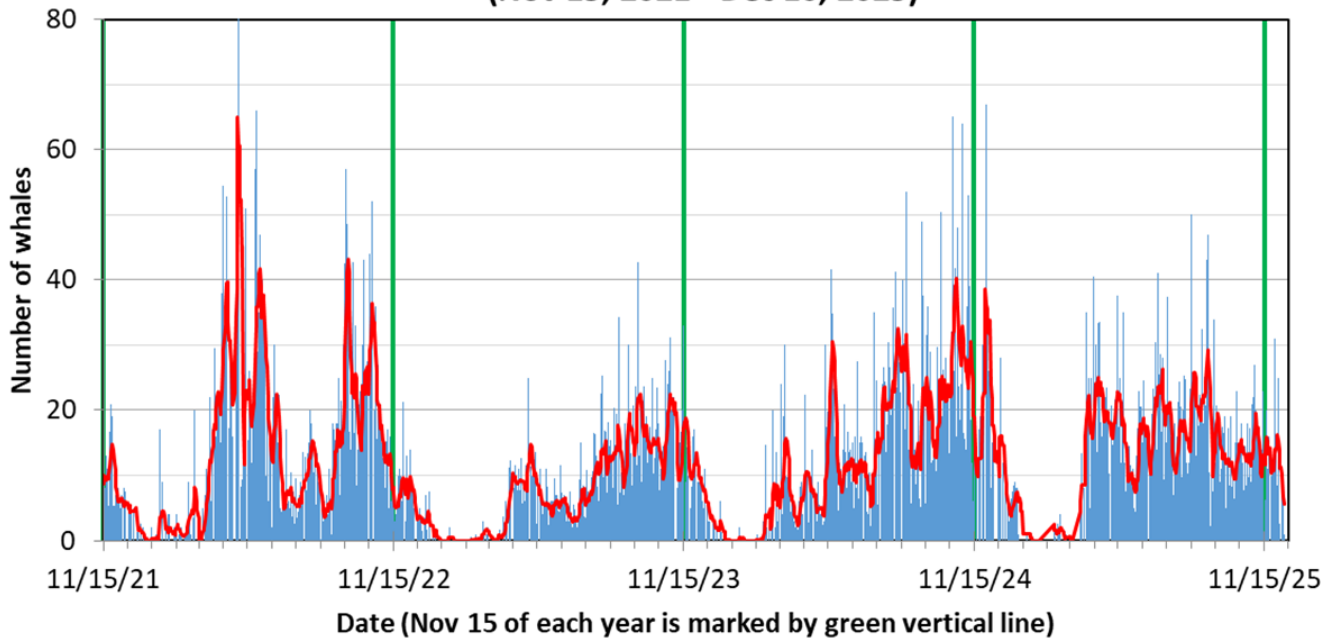


Figure 7. Standardized number of humpback whale sightings for Monterey Bay Whale Watch from November 15, 2021 –December 10, 2025. The y-axis is the number of whales per half-day trip; the thin blue bars are the average daily whale numbers, and the red line is a 7-day running average to make the patterns 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. Historic patterns and current Actionable Species migration: §132.8(d)(5)

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

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

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 and 4 during the seven-day period ending December 11, 2025.

Fishing Zone	Number of humpback whales sighted	Number of blue whales sighted
Zone 3	4	0
Zone 4	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 is slightly higher than the historical average for this time of year (Figure 8).

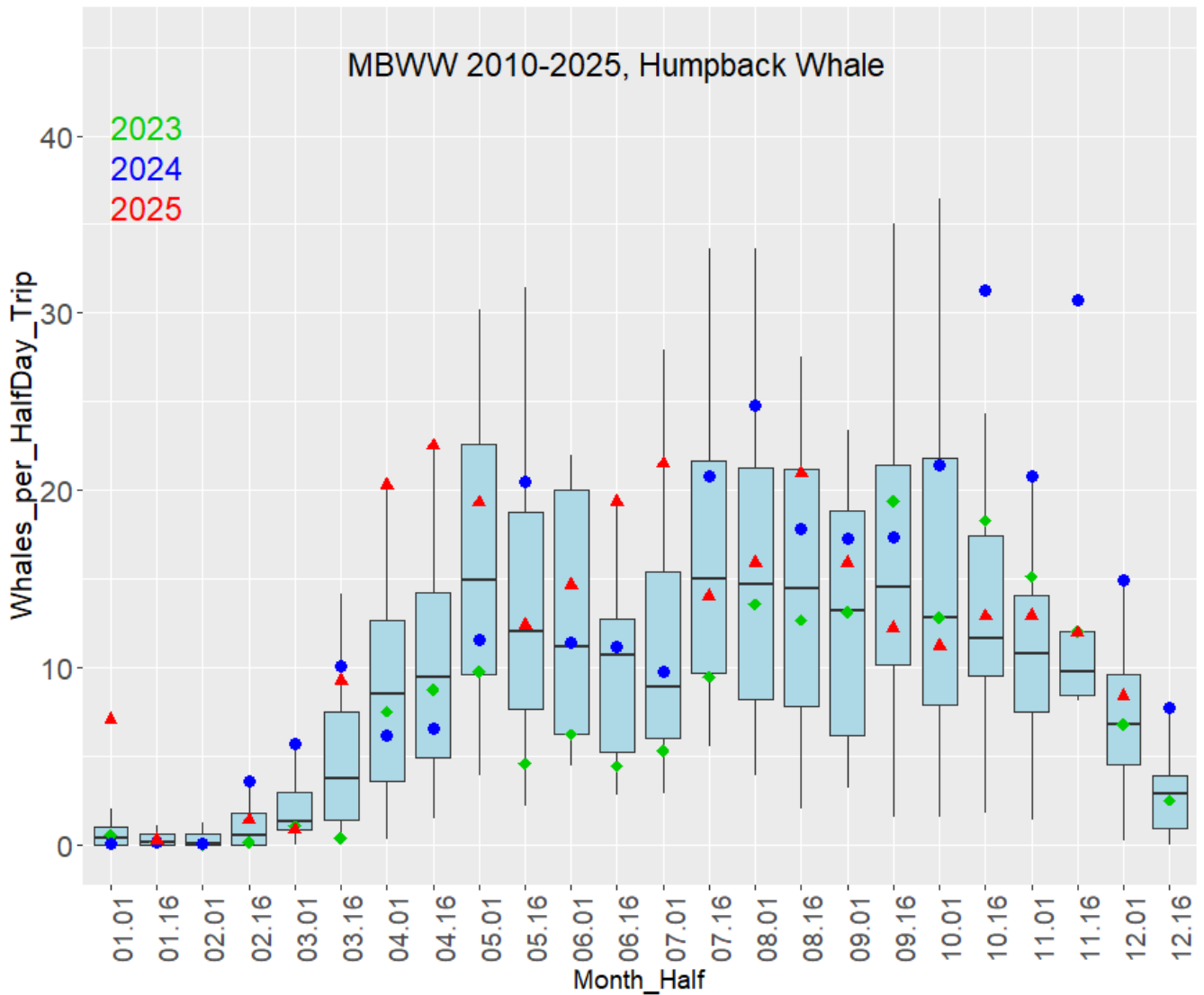


Figure 8. Historical Monterey Bay Whale Watch data for 2010-2025, summarizing the average and variation in the number of humpback whales per half-day trip on a semi-monthly basis (1st- 15th, 16th-end of month). This boxplot follows standard statistical practice in that the black horizontal line is the 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)

Visit the [NOAA Coastwatch Habitat Suitability Map](#) to see latest data from August 3.

II. Fishing Season dynamics: §132.8(d)(6)

A. Domoic Acid and Quality Testing

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

- Results through December 5, 2025, are posted on the [CDPH domoic acid website](#).
- Results from re-tested samples from Trinidad (Trinidad Head and Lagoons), Crescent City (Klamath River), Eureka (LP Eureka), and Fort Bragg (Manchester Beach) have exceeded the action level for viscera. Additional testing for all five locations will be required.
- Domoic acid results have impacted CDFW's ability to coordinate quality testing in time for the Tri-State manager's decision deadline of December 22, 2025. Without passing results, the start date for the northern management area will be delayed to January 15, 2026, the last delay date under quality testing (Section 8276.2 of the Fish and Game Code). Crab quality criteria only affect Fishing Zones 1 and 2.

III. Distribution and abundance of key forage: §132.8(d)(7)

A. MBARI Krill Model

No new data. Visit the [MBARI website](#) to see the latest data from July 2025.

IV. Ocean conditions: §132.8(d)(8)

A. El Niño/Southern Oscillation (ENSO) Diagnostic

La Niña is favored to continue into the Northern Hemisphere winter, with a transition to ENSO-neutral most likely in January-March 2026 (61% chance). Model predictions favor La Niña to continue through December-February 2025-26. A weak La Niña would be less likely to result in conventional winter impacts. Please visit the [NOAA ENSO Diagnostic webpage](#) for more information.

B. Large Marine Heatwave Tracker

NOAA continues to track NEP25A, a large marine heatwave which arose in May 2025. The current heatwave forecast suggests heatwaves will continue through the next several months in the offshore regions where they currently reside, with decreased likelihood of continuing along the coast through the winter, as is typical for this region. Please visit the [NOAA Marine Heatwave Tracker webpage](#) for more information.

C. Habitat Compression Index

No new data. Please visit the [NOAA Habitat Compression Index webpage](#) to see the latest data from April 2025.

V. Total economic impact to the fleet: §132.8(d)(3)

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.