

2020-21 Risk Assessment: Available Data

Last updated: January 12, 2021

TRIGGERS REQUIRING MANAGEMENT ACTION

Section 132.8(c)(1): Confirmed Entanglements

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

Evaluation of RAMP Triggers (by CDFW)

Total number of Confirmed Entanglements in California Commercial Dungeness Crab Gear

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

Total number of Confirmed Entanglements in Unknown Fishing Gear reported from California

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

Summary of All West Coast Entanglements (by NMFS)

Total entanglements for calendar year 2020:

- 17 confirmed: 10 Humpback whales, 6 Gray whales, and 1 Sperm whale
- 11 unconfirmed: 4 Humpback whales, 4 Gray whales, 1 Bryde's whale and 2 unidentified whales

Total entanglements for calendar year 2021: none

Section 132.8(c)(2): Marine Life Concentrations

Data provided by: Monterey Bay Whale Watch (processed by Karin Forney, NMFS), California Department of Fish and Wildlife

Monterey Bay Whale Watch (Fishing Zone 4)

- The number of documented Humpback whales has continued to decline since the last assessment in early December, and no Humpback whales have been observed since December 30, 2020.
- No Blue whales have been observed since December 24, 2020, when a single Blue whale was seen.

CDFW Aerial Survey - Fishing Zones 3 and 4

CDFW staff conducted a limited aerial survey over portions of Fishing Zones 3 and 4 (Russian River to Point Piños) on January 11, 2021 (Figure 1). Fog and low clouds obscured portions of both Fishing Zones, so the flight transects were adjusted accordingly. One Humpback whale was observed west of Half Moon Bay at the shelf break. Trap gear was observed across both Fishing Zones, with high concentrations around Point Reyes around the Farallon Islands and west of Half Moon Bay. Vessel activity was observed around the ports of Bodega Bay, San Francisco and Half Moon Bay.



Figure 1. Flight path and observations during CDFW aerial survey in Fishing Zones 3 and 4 on January 11, 2021.

MANAGEMENT CONSIDERATIONS

Section 132.8(d)(2): Information from NOAA

No additional information was shared.

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

No additional information was provided to CDFW. See management consideration (d)(7) for available information on fishing activity to date during the 2020-21 fishing season.

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

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

Monterey Bay Whale Watch (*Fishing Zone 4*)

- The absence of Humpback whales is consistent with average historical winter-time patterns (Figure 2) that show few or no Humpback whale sightings during January when whales have mostly left the California feeding grounds for their breeding areas off Mexico and Central America.
- The absence of Blue whales is consistent with their known southward migration to breeding areas during winter.

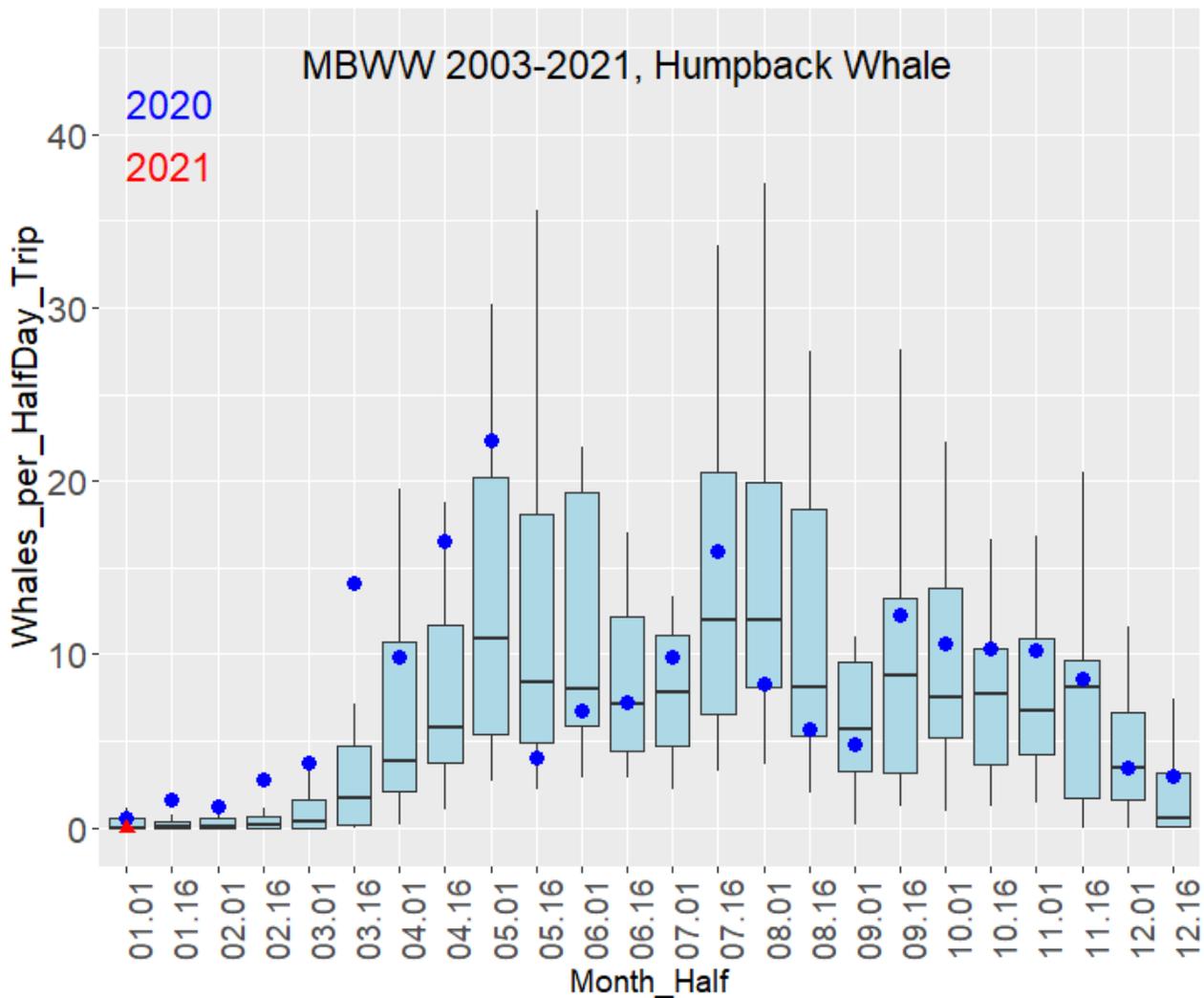


Figure 2. Historical Monterey Bay Whale Watch data for 2003-2021, summarizing the average and variation in the number of humpback whales per half-day trip on a semi-monthly basis (1st- 15th, 16th- end of month). This boxplot follows standard statistical practice in that the black horizontal line is the 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 2020 (large blue dots) and 2021 (red triangles) and are provided for reference, placing recent whale numbers in a historical context.

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

Data provided by: California Department of Fish and Wildlife

Marine Landings Data System

The commercial Dungeness crab fishery opened statewide on December 23, 2020. Due to ongoing price negotiations, most vessels chose not to begin fishing until January 11, 2021. As of January 12, 2021, landing receipt data available to CDFW through the Marine Landings Data System indicates there have been 18 landings of Dungeness crab during the 2020-21 fishing season with a total volume of 16,539 lbs. Average unit price for these landings was \$3.87 with a total Ex-Vessel Value of \$55,883.70. Given the limited fishery participation to date, data confidentiality requirements preclude sharing more detailed summaries at this time.

Bi-Weekly Fishing Activity Reports

CDFW has been receiving bi-weekly reports since the first reporting period of January 1, 2021. Based on the low level of fishing activity, CDFW will be providing summaries of these reports at a later date.

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

No information was provided.

Section 132.8(d)(9): Ocean conditions

No information was provided.

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

Data provided by: California Department of Fish and Wildlife

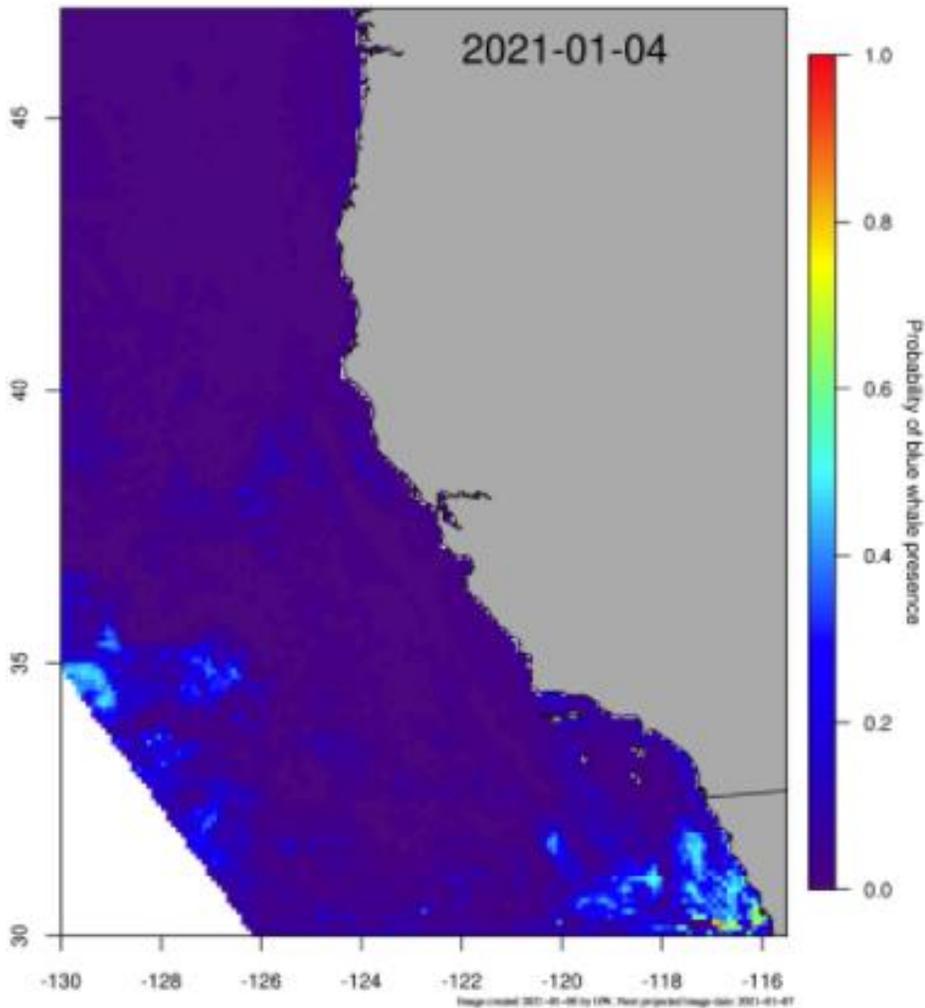
Pursuant to the Risk Assessment and Mitigation Program (Section 132.8, Title 14, CCR), Impact Score Calculations will be assigned beginning with the 2021 calendar year based on confirmed entanglements of Actionable Species (Humpback whales, Blue whales, or Leatherback Sea Turtles) reported to CDFW by NOAA. As described in Section 132.8(c)(1) above, no confirmed entanglements of Actionable Species have been reported for the current calendar year. Therefore, the Impact Score Calculation is 0 for all three species.

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

Data provided by: Briana Abrahms (University of Washington), Kathi George (The Marine Mammal Center), Point Blue Conservation Science

WhaleWatch 2.0 (All Fishing Zones)

The best whale habitat predictions for January 4, 2021 indicate that probability of Blue whale presence is low in Fishing Zones 1-6 (Figure 3).



WhaleWatch 2.0 [or future product name] is a dynamic ocean management tool that aims to provide information on suitable whale habitat in real-time to minimize ship strike risk. Map shows predicted daily blue whale habitat suitability at 10km resolution which represents where whales are most likely to be based on environmental conditions. ([link to website](#))

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Figure 3. WhaleWatch 2.0 map for January 4, 2021. [View a current map.](#)

Solar Loggers (*Fishing Zone 4*)

Track lines from whale watching vessels participating in the solar logger pilot project (Figure 4) indicate a high amount of effort in the southern half of Monterey Bay during 43 trips between December 19, 2020 – January 8, 2021.

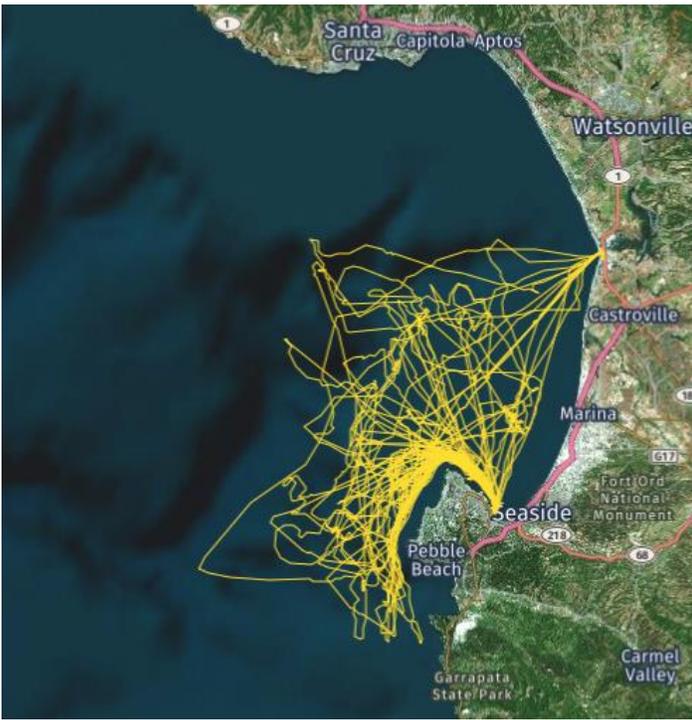


Figure 4. Track lines for all whale watch trips from December 19, 2020 – January 8, 2021. Sightings and species are not reflected on this map.

Point Blue Conservation Science Data Portal (*Fishing Zones 3, 4 and 6*)

Over the 7-day period ending January 12, 2021, 1 Humpback whale and 0 Blue whales were reported by trained biologists at the Farallon Islands (Figure 5). No Humpback or Blue whales were reported in Monterey Bay (through the Spotter/Whale Alert app) or the Santa Barbara Channel (by trained naturalists from the Channel Islands National Marine Sanctuary and National Park Service) during this period.

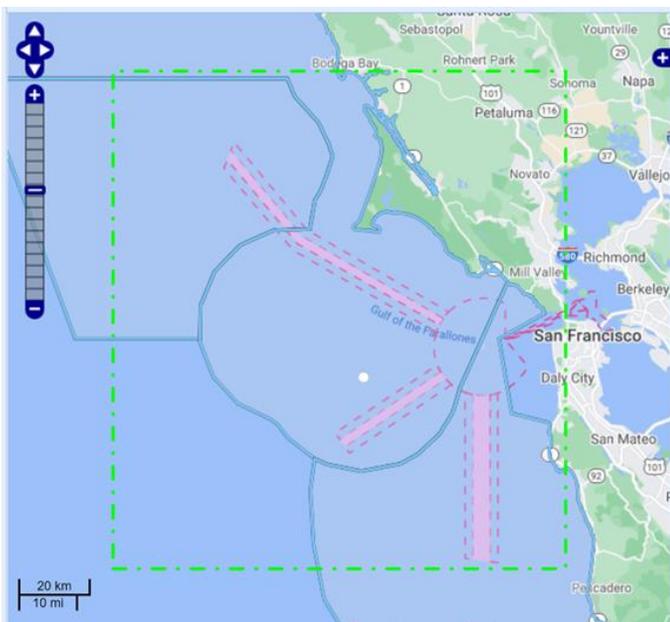


Figure 5. 1 Humpback whale sighting in Fishing Zone 3 during the 7-day period ending January 12, 2021. Reporting locations are represented by white circles. A given report may represent multiple individuals.