2019-20 Risk Assessments: Available Data

Last updated: June 24, 2020

FACTOR: OCEAN AND FORAGE CONDITIONS

Updated indices from Jarrod Santora and Isaac Schroeder are not available. Information provided for the June 9, 2020 Working Group Risk Assessment is available here: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=180419&inline.

FACTOR: ENTANGLEMENTS

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

California Commercial Dungeness Crab Gear

- There has been 1 confirmed humpback whale entanglement with California commercial Dungeness crab gear during the 2019-20 fishing season.

2020 Calendar Year Totals

- There has been one new entanglement since the last Working Group meeting. Updated totals for 2020 are as follows: 9 confirmed (6 humpback whales, 3 gray whales), 4 unconfirmed (3 gray whales, 1 unidentified whale).
- Humpback Whales: 6 confirmed entanglements
    - June 13, 2020: dead stranding with OR commercial Dungeness crab gear around tail, reported off Point Reyes, CA
    - May 16, 2020: entangled with multiple sets of commercial CA Dungeness crab gear, reported off Moss Landing, fully disentangled
    - April 15, 2020: calf entangled with unidentified gear (likely gillnet), reported off Orange County
    - April 13, 2020: entangled with spot prawn gear set, reported off Channel Islands, partially disentangled
    - February 28, 2020: entangled with unidentified gear (dark colored line), reported off Monterey
    - February 14, 2020: entangled with gillnet, reported off San Diego
- Blue whales: 0 reported entanglements
- Leatherback turtles: 0 reported entanglements

- Gray Whales: 3 confirmed entanglements, 3 unconfirmed entanglements
    - 1 confirmed entanglement with WA commercial Dungeness crab gear, reported in Washington (April 24)
    - 1 confirmed entanglement with gillnet reported off San Diego (January 20)
    - 1 confirmed entanglement with unidentified gear reported off Oxnard (January 12)
    - 1 unconfirmed entanglement with rope + 1 buoy + 1 trailer float, reported in Washington, dead stranding (May 10)
    - 1 unconfirmed entanglement with a mooring buoy, report in Washington (April 29) *has not been reviewed yet*
    - 1 unconfirmed entanglement with unidentified gear, reported as buoys (March 19)
- Unidentified whale: 1 unconfirmed entanglement (March 3)

FACTOR: FISHING DYNAMICS

Data provided by: California Department of Fish and Wildlife, Jon Gonzalez (California Coast Crab Association)

Marine Landings Data System

- All analyses were conducted with landing receipt data available as of June 24, 2020. Submission requirements through the E-Tix platform and subsequent availability in the Marine Landings Data System means data are relatively complete through mid-June; only landings through June 13, 2020 (Week 26) are included in the totals and figures below.
- During the 2019-20 season, there have been 7,057 landings of Dungeness crab (13,768,779 pounds and $46,747,730 in Ex-Vessel Value) by 437 vessels.
- CDFW MacroBlocks (aggregated CDFW Fishing Blocks used to report catch location) are shown in Figure 1.
- During the first half of June, the highest vessel activity was in Crescent City and Eureka (Figure 2) with the highest volume of landings into Crescent City and Fort Bragg (Figure 3). Recent landings do not show clear trends in harvest locations (Figure 4).
- Number of deployed traps is estimated by summing the number of allotted traps (i.e. trap tier) for each permitted vessel making a landing during the specified time period. Overestimation may occur if a vessel does not utilize their full trap allocation. Underestimation may occur if a vessel has traps deployed but does not make a landing during that time period or if a vessel number was incorrectly reported on a landing receipt

(preventing assignment of the vessel's trap allocation). Incorrectly reported catch locations (blocks) will also generate discrepancies. Within these constraints, the estimated number of deployed traps during the week of June 7 was at least 11,525 traps (Table 1). Summed across all MacroBlocks, the estimated number of deployed traps during this week is approximately 10% of those deployed during the first week when both management areas were open.

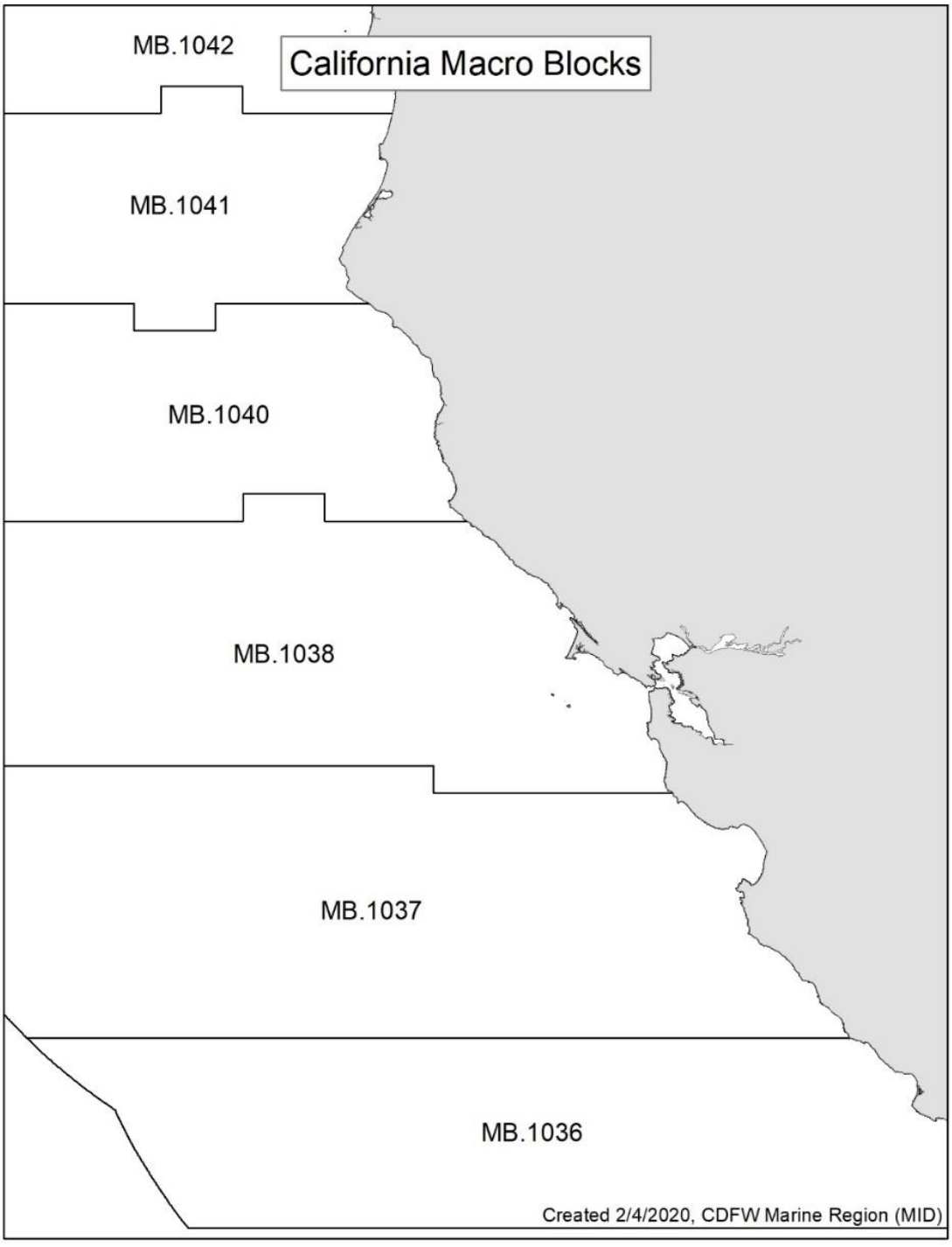

Figure 1. Map showing spatial extent of MacroBlocks used for summarizing landings analysis.

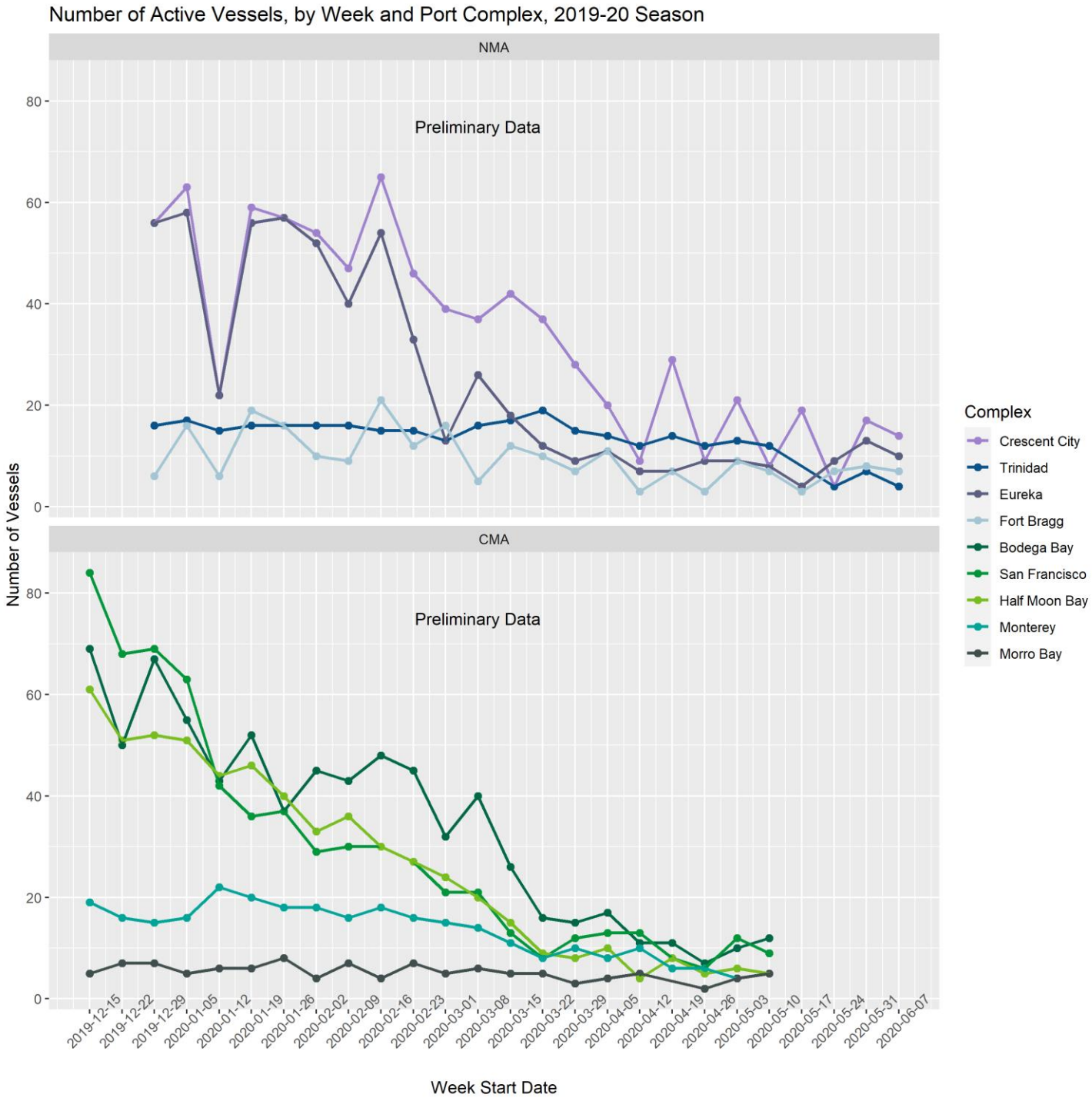

Figure 2. Number of vessels making Dungeness crab landings by week and port complex. Accessed from CDFW's Marine Landings Data System on June 24, 2020. All data is preliminary and subject to change.

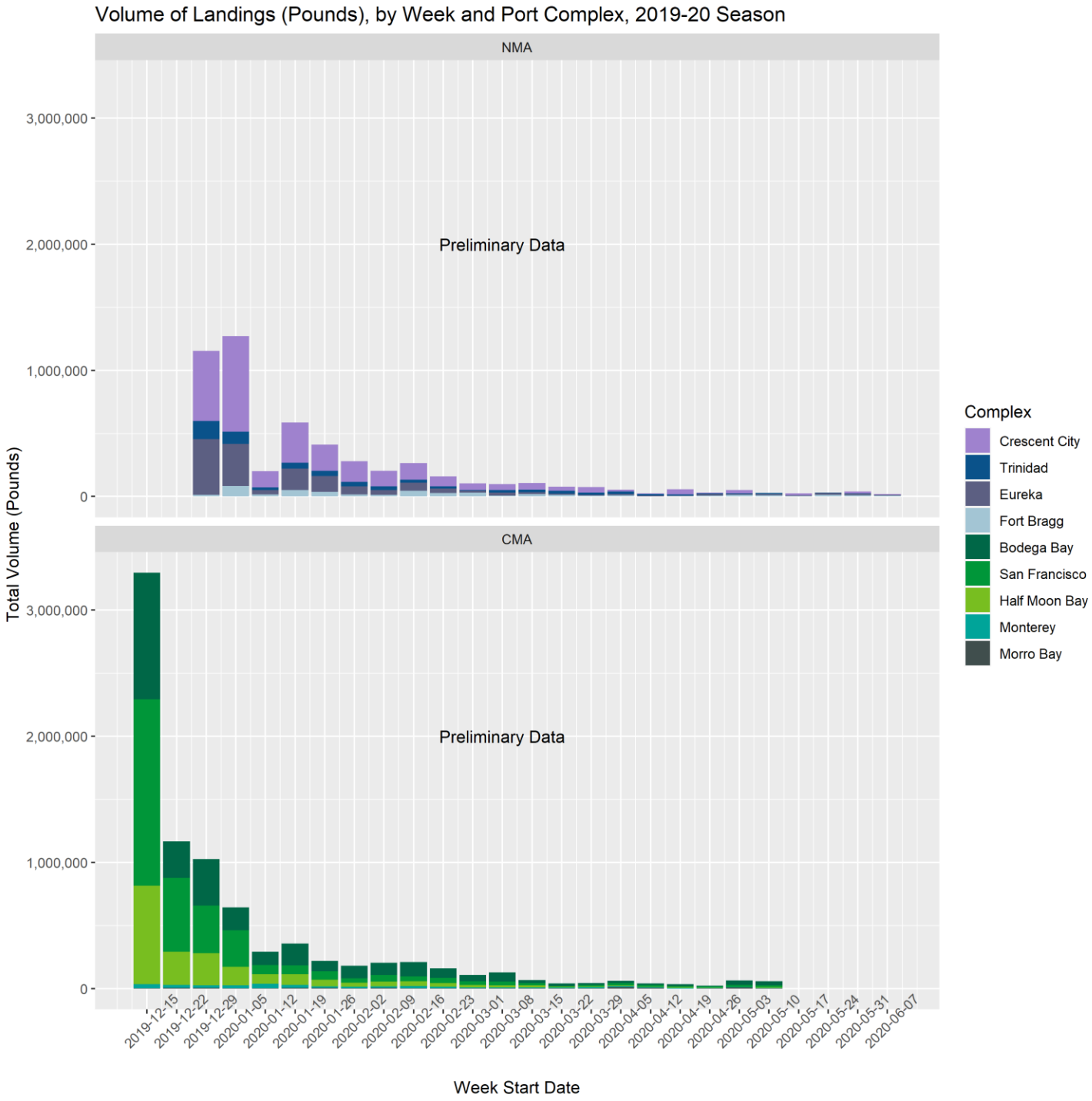

Figure 3. Dungeness crab landings (pounds) by week and port complex. Accessed from CDFW's Marine Landings Data System on June 24, 2020. All data is preliminary and subject to change.

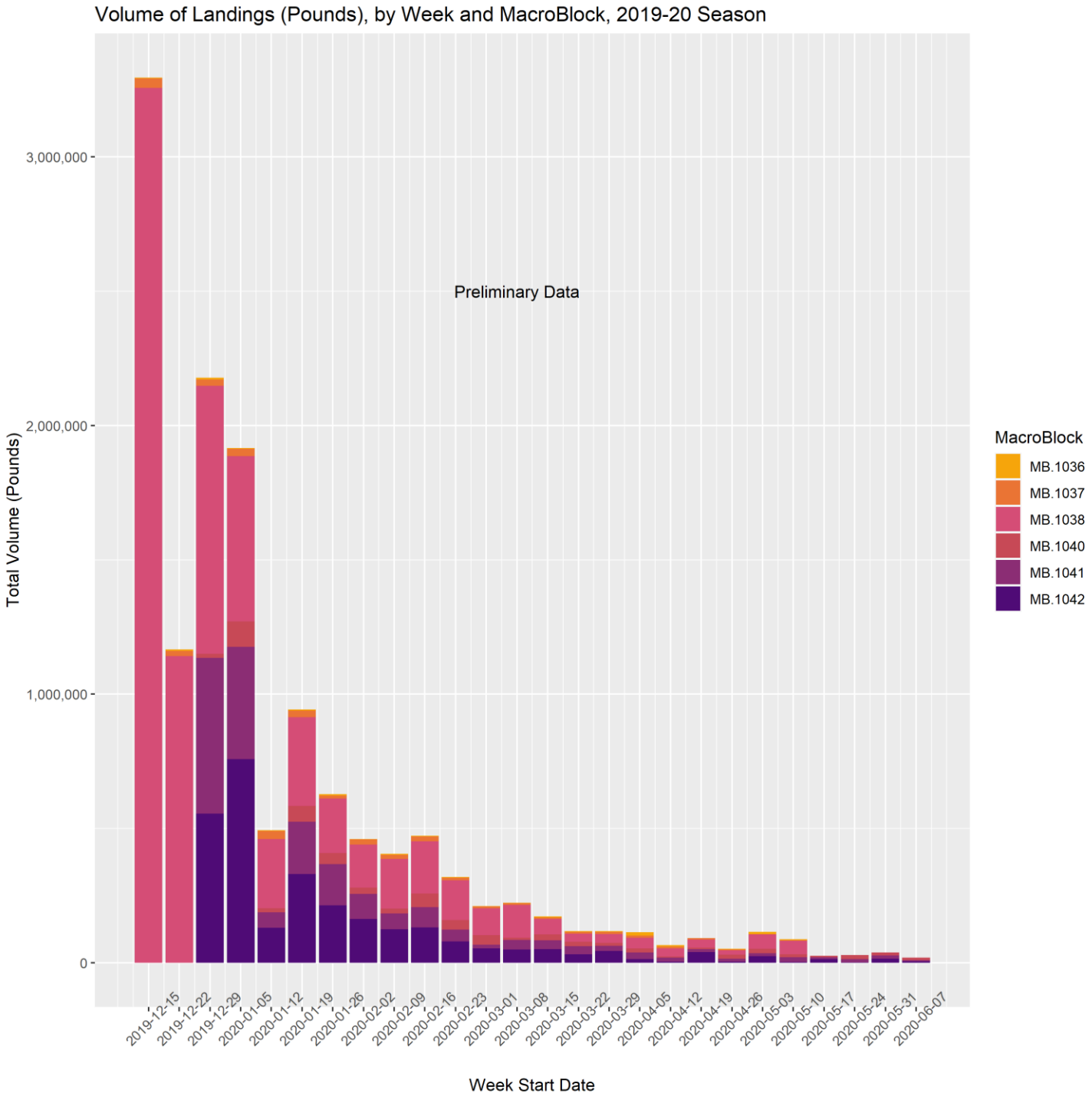

Figure 4. Dungeness crab landings (pounds) by week and MacroBlock. Accessed from CDFW's Marine Landings Data System on June 24, 2020. All data is preliminary and subject to change.

Table 1. Estimated number of Dungeness crab traps deployed in each MacroBlock based on trap allotments of vessels making landings each week. Accessed from CDFW's Marine Landings Data System and Automated License Data System on June 24, 2020. All data is preliminary and subject to change. Information for week and MacroBlock combinations where less than 3 vessels made landings is withheld for confidentiality.

Week of	MB.1036	MB.1037	MB.1038	MB.1040	MB.1041	MB.1042
12/15/2019	1,100	5,675	65,900	season not open	season not open	season not open
12/22/2019	1,725	4,600	53,700	season not open	season not open	season not open
12/29/2019	1,725	4,650	60,675	2,175	24,525	20,425
1/5/2020	1,300	5,350	53,925	5,425	24,625	23,725
1/12/2020	1,300	5,250	39,325	1,600	14,350	8,800
1/19/2020	1,550	5,550	41,350	5,675	22,900	22,725
1/26/2020	1,975	4,425	35,375	5,125	24,550	20,925
2/2/2020	1,050	5,400	33,100	3,675	22,600	19,550
2/9/2020	1,725	4,575	32,775	2,975	18,600	18,925
2/16/2020	1,050	5,650	32,875	6,475	22,350	24,025
2/23/2020	1,625	4,225	29,425	4,400	14,100	18,000
3/1/2020	1,475	3,850	22,725	4,800	8,400	15,125
3/8/2020	1,550	3,950	25,725	2,225	11,250	14,225
3/15/2020	1,375	2,625	15,500	4,200	11,000	16,100
3/22/2020	1,125	2,175	9,925	3,575	10,025	13,725
3/29/2020	675	2,350	10,525	3,175	7,225	11,075
4/5/2020	925	1,850	11,550	4,100	6,625	7,250
4/12/2020	1,100	2,625	7,625	2,100	5,825	3,225
4/19/2020	confidential	1,575	7,450	3,150	6,675	9,650
4/26/2020	425	1,400	5,050	2,825	5,375	3,750
5/3/2020	925	925	7,575	3,725	6,525	8,050
5/10/2020	1,100	1,100	7,625	2,925	6,475	2,850
5/17/2020	season closed	season closed	confidential	600	2,050	7,300
5/24/2020	season closed	season closed	confidential	2,550	3,225	1,400
5/31/2020	season closed	season closed	confidential	3,125	4,875	6,750
6/7/2020	season closed	season closed	confidential	3,425	3,500	4,600

California Coast Crab Association

- Estimates were provided from trusted port representatives and crab buyers from each major port area (Crescent City, Trinidad, Eureka and Fort Bragg) between June 22 and June 24, 2020.
- Numbers represent a 41% reduction in pots from June 8th to June 24th (14,795 vs. 8,680).

- Current fishing efforts are not expected to reduce significantly from now to the end of the season because most of the folks that stack out for salmon, albacore or shrimp have already done so.

Table 2. Estimated number of active commercial Dungeness crab vessels and traps by port area as of June 8, 2020 and projections for June 24, 2020. Provided by California Coast Crab Association. Fort Bragg includes Shelter Cove, Point Arena, and Noyo.

Port	Vessels as of June 24, 2020	Traps as of June 24, 2020	Projected Vessels on July 1, 2020	Projected Traps on July 1, 2020
Crescent City	5	650	5	650
Trinidad	4	1,180	4	1,180
Eureka	7	1,950	6	1,950
Ft. Bragg	14	4,900	14	4,900
Total Statewide	30	8,680	30	8,680

FACTOR: MARINE LIFE CONCENTRATIONS

Data provided by: Scott Benson (NMFS Southwest Fisheries Science Center), Monterey Bay Whale Watch (compiled by Karin Forney, NMFS Southwest Fisheries Science Center), Point Blue Conservation Science

Pacific Leatherback Sea Turtle Observations and Tagging Information

There were 5 reported sightings of at least 2-3 leatherback turtles in Monterey Bay during June 14-20. Video footage was obtained for two of these sightings. Some reports mentioned abundant sea nettles and a few purple striped jellies associated with the turtles. Meanwhile, as of June 24, 2020 two of six transmitters that were attached to leatherback turtles during September/October 2019 remain active. Both turtles remain outside of shelf waters, approximately 135 and 180 miles southwest of Point Sur, California and are engaged in intermittent foraging activity as they slowly move in a northeast direction toward the coast.

Monterey Bay Whale Watch

- Commercial MBWW whale-watching trips resumed on June 13, with 18 half-day or full-day trips conducted through June 21. Karin Forney has standardized the new data to the same ‘whales per half-day-trip’ unit used in previous summaries.

- The average number of humpback whales has increased slightly since late May, averaging 9 whales per half-day-trip during June 14 – 21, with a high of 22 on June 19. No blue whales were observed between June 13 and 21, 2020.
- Compared to historical patterns (Figure 5), the most recent humpback whale numbers are above-average.

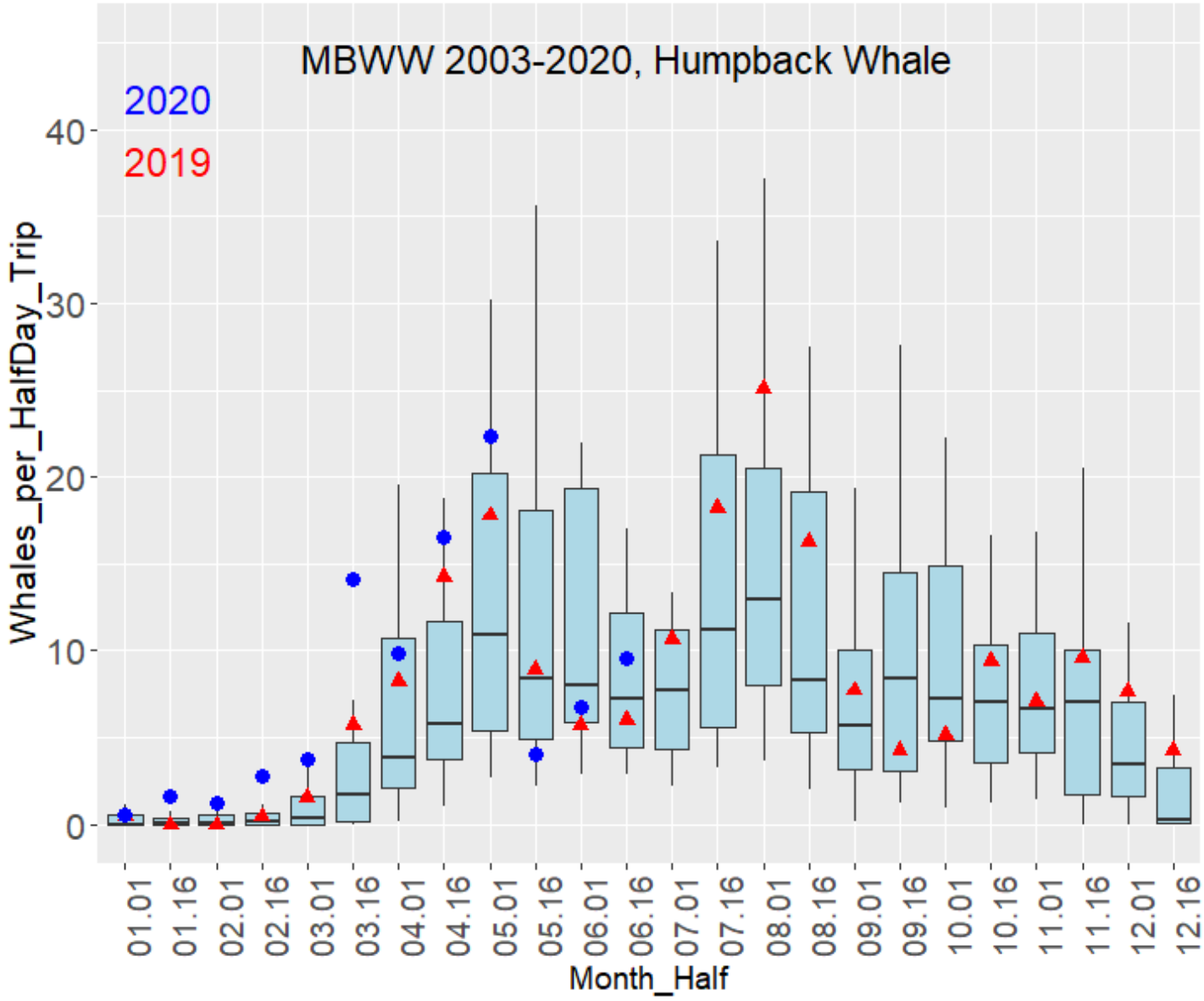

Figure 5. Historical Monterey Bay Whale Watch data for 2003-2020, summarizing the average and variation in the number of humpback whales per half-day trip on a semi-monthly basis (1st- 15th, 16th- end of month). This boxplot follows standard statistical practice in that the black horizontal line is the 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 2019 (red triangles) and 2020 (large blue dots) are provided for reference, placing recent whale numbers in a historical context.

Point Blue Conservation Science (https://geo3.pointblue.org/whale-map/index.php)

- Observations by trained biologists at the Farallon Islands show 7 humpback whales were reported through the Spotter/WhaleAlert app over the last 7 days (June 18 to June 24, 2020; Figure 6). 65 blue whales were reported during the last 30 days (May 26 to June 24, 2020; Figure 7), with no sightings in the last 7 days. 47 of the 65 sightings were all on the same day (June 14).
- In the Monterey Bay region, 39 humpback whale sightings were reported through the Spotter/WhaleAlert app over the last 7 days (Figure 8). No blue whales were reported during the last 30 days.
- One humpback whale and 17 blue whale observations by trained naturalists from Channel Islands National Marine Sanctuary and the National Park Service were reported over the last seven days.

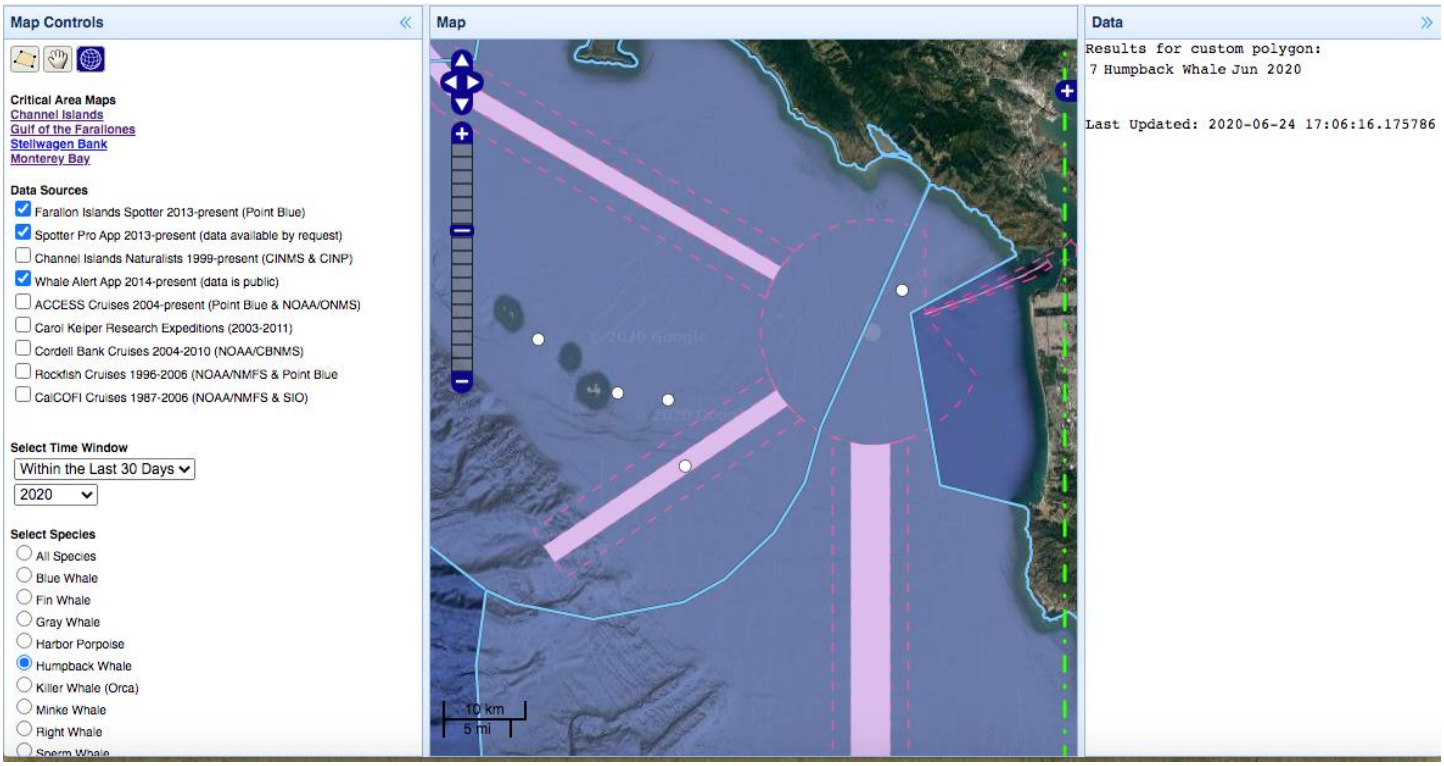

Figure 6. Seven humpback sightings in the Gulf of the Farallones from June 18 to June 24, 2020. Reporting locations are represented by white circles. A given report may represent multiple individuals. Right hand panel shows total counts by species and time period.

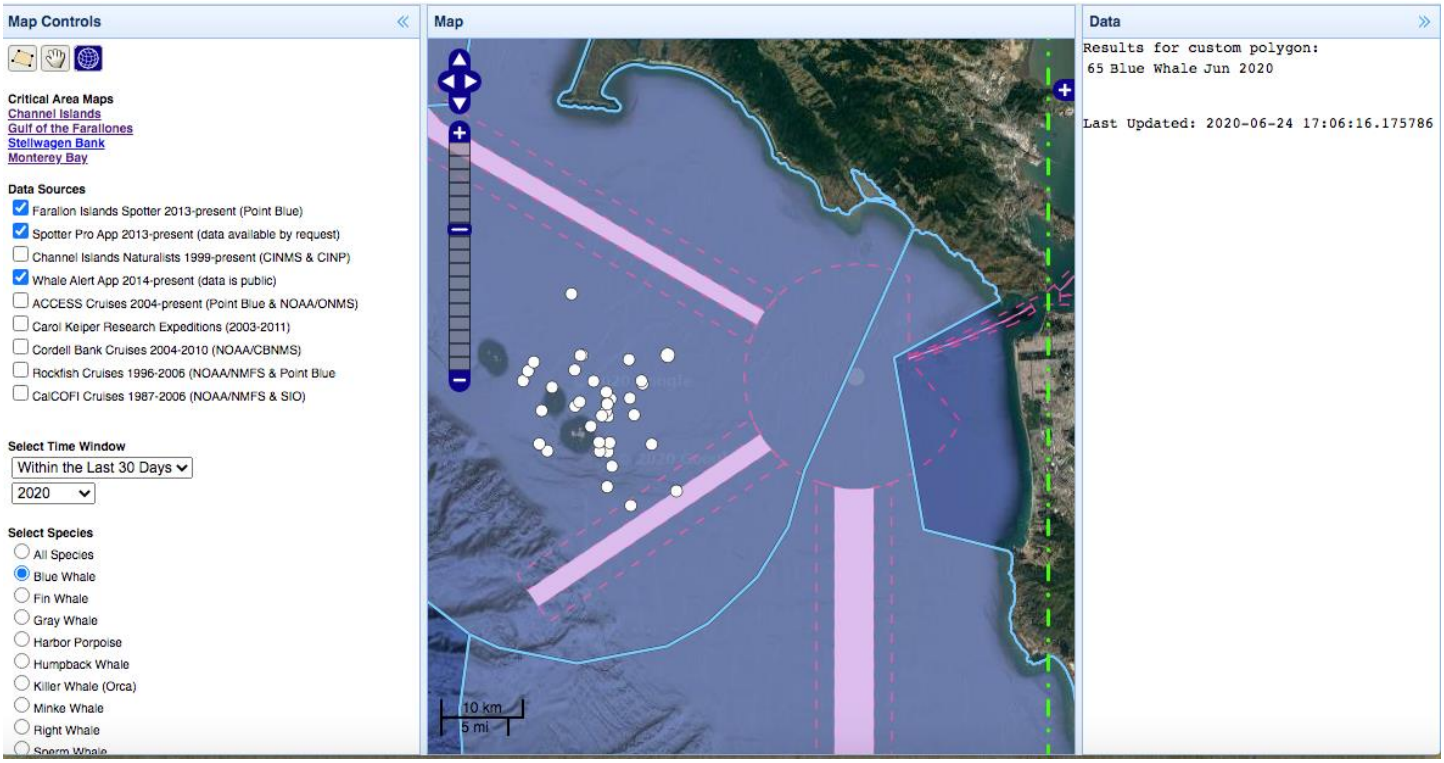

Figure 7. 65 blue whale sightings in the Gulf of the Farallones from May 26 to June 24, 2020. 47 of the 65 sightings were all sighted on June 14. Reporting locations are represented by white circles. A given report may represent multiple individuals. Right hand panel shows total counts by species and time period.

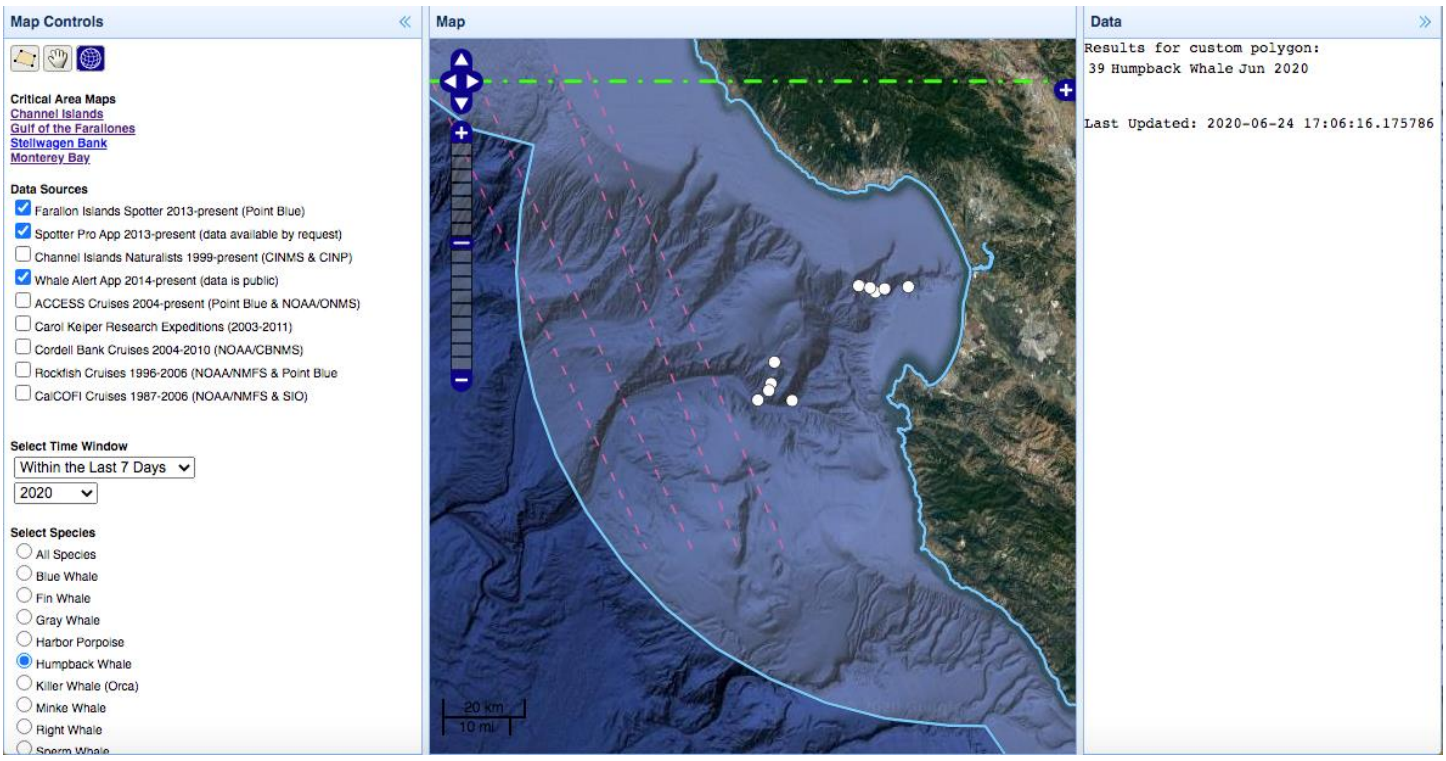

Figure 8. 39 reported humpback sightings in the Monterey Bay area from May 26 to June 24, 2020. Reporting locations are represented by white circles. A given report may represent multiple individuals, and the same individual may be included in multiple reports. Right hand panel shows total counts by species and time period. Sightings were reported during research surveys by Nancy Black/Monterey Bay Whale Watch and Peggy Stap/Marine Life Studies.