

Leatherback Aerial Survey and Tagging Summary September 12-13 and September 20, 2019

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Survey Details:

Aerial surveys were conducted 12-13 September and 20 September 2019 in support of leatherback capture and tagging operations. The surveys were led by Karin Forney and Scott Benson, with a team of trained aerial observers from NOAA and a local research partner, Upwell (based in Monterey). Weather conditions were very good, with light winds and mostly clear skies. Observations in support of the Working Group are plotted and summarized below (Figures 1-2). One turtle was captured and tagged with a satellite-linked transmitter (Figure 3).

Humpback whales: Similar to the June and August 2019 surveys, humpback whales were numerous in shallow waters of the Gulf of the Farallones, and the most dense aggregation was encountered between Pillar Point and Devil's Slide in relatively shallow waters (approx. 15-30 fm; 30-50m) (See right panels in Figs 1-2). The whales appeared to be feeding on anchovies.

Leatherback Turtles: Consistent with recent years, leatherback turtles were observed foraging on dense aggregations of brown sea nettles within shallow waters (approx. 25-40fm; 45-70m), in an area extending from just south of Pillar Point north to at least Pacifica. Ocean sunfish (*Mola mola*), another jelly predator, was abundant within that region. Six unique leatherback turtles were documented during the three days of capture & sampling effort, including five observed during aerial surveys and one observed from the capture vessel on 9/21, when there were no aerial surveys.

Pot Gear: Some pot gear was recorded throughout the survey areas, including what appeared to be derelict gear (visibly fouled) as well as actively fished gear (clean and in strings) near Pillar Pt.

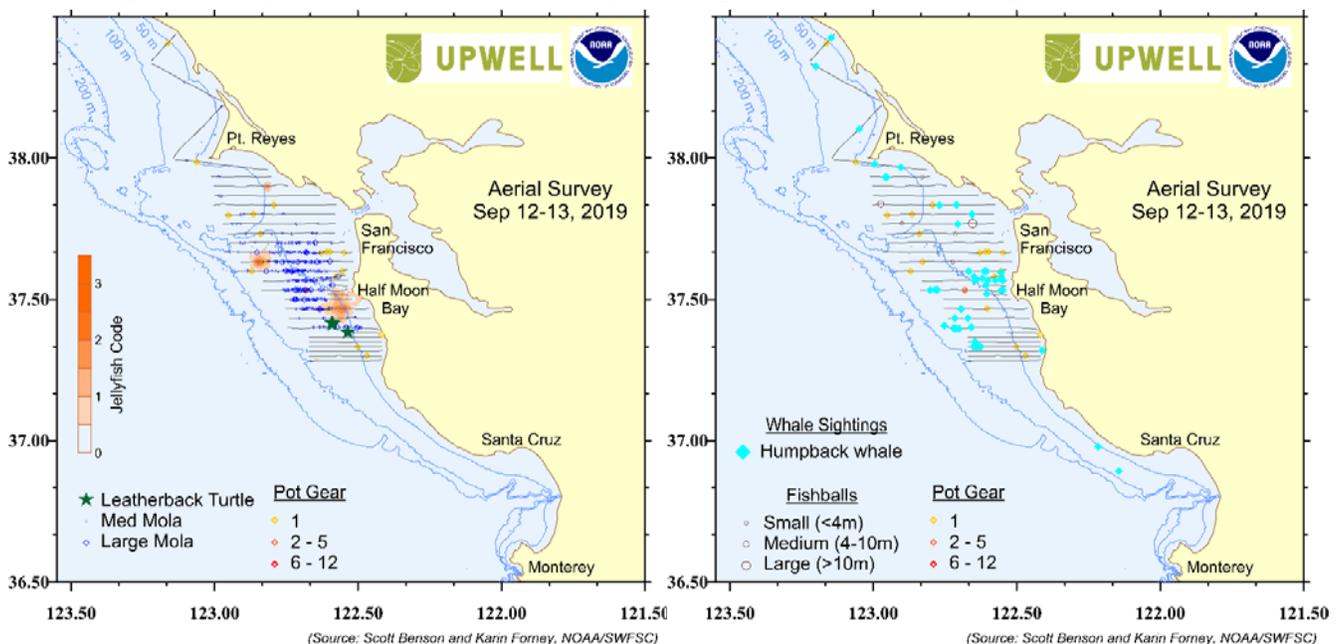


Figure 1. Leatherback Aerial Surveys on Sep 12-13, 2019. **LEFT:** Observations of leatherback turtles, their jellyfish prey (coded 0-3, with 3 being the densest aggregations), medium and large ocean sunfish (*Mola mola*) that also feed on jellies, and pot gear (both fouled and clean). **RIGHT:** Observations of humpback whales, fish balls (anchovies), and pot gear.

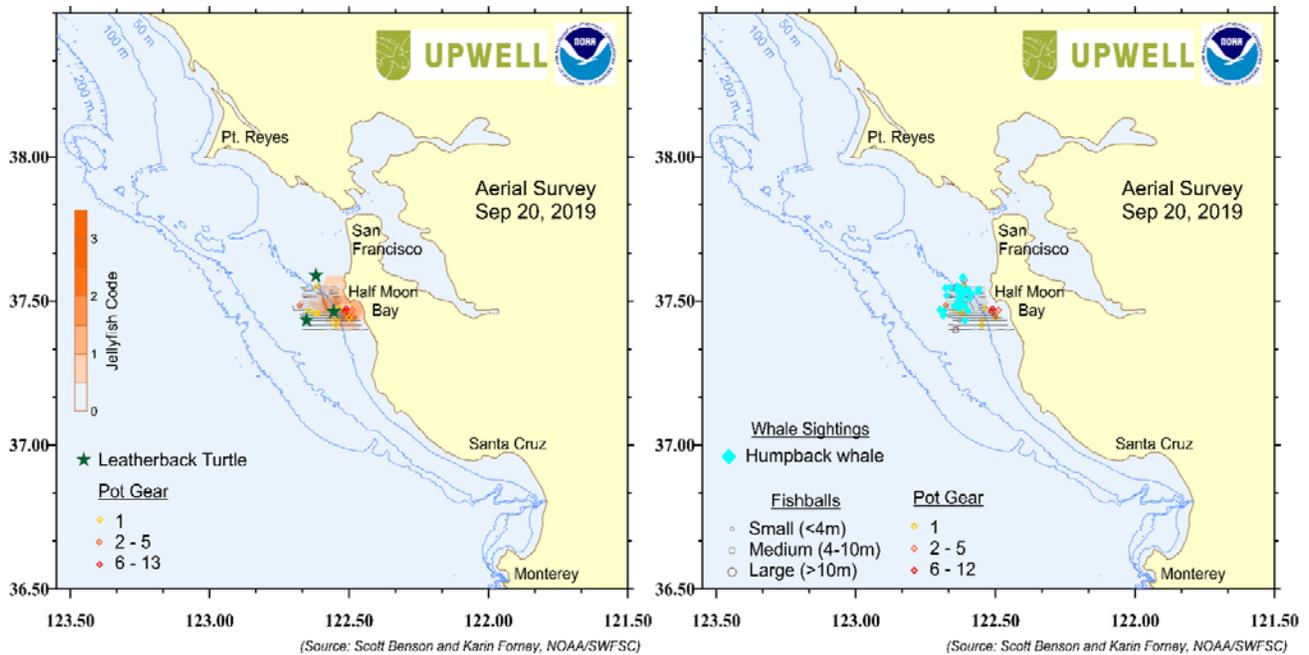


Figure 2. Leatherback Aerial Surveys on Sep 12-13, 2019. **LEFT:** Observations of leatherback turtles, their jellyfish prey (coded 0-3, with 3 being the densest aggregations), medium and large ocean sunfish (*Mola mola*) that also feed on jellies, and pot gear (both fouled and clean). **RIGHT:** Observations of humpback whales, fish balls (anchovies), and pot gear.

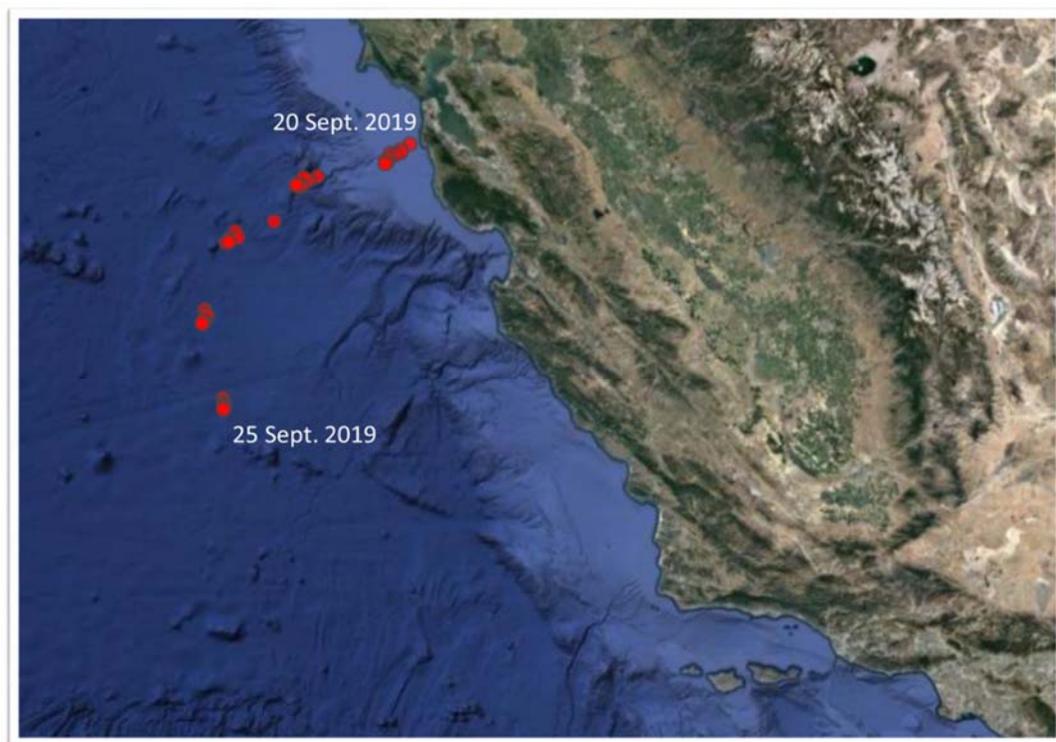


Figure 3. Track of leatherback turtle tagged on 9/20/2019 off Half Moon Bay. The animal was in good body condition, suggesting a successful foraging season, and departed coastal waters after tagging.