

### Building solutions to entanglements

- Dungeness crab fishing gear working group
- Best practices guide
- New regulations limiting surface trailing gear
- Information gathering projects
- Gear testing
- Risk Assessment and Monitoring Program





## Where are the whales, turtles, and gear?

Working Group October 2018 Recommendations:

- Aerial and vessel surveys
- Forage Analysis
- Tagging Studies
- Whale watching data
- Predictive models
- Partner with Coast Guard
- Expanded testing of solar data loggers



#### **Aerial Survey Results**

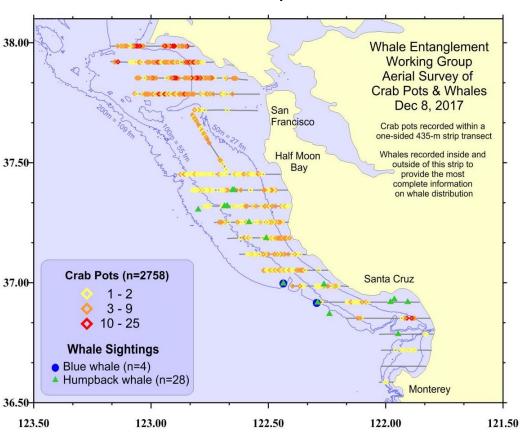
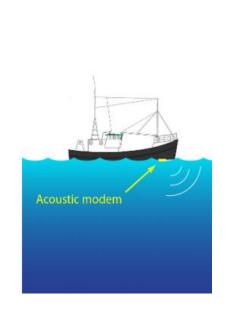
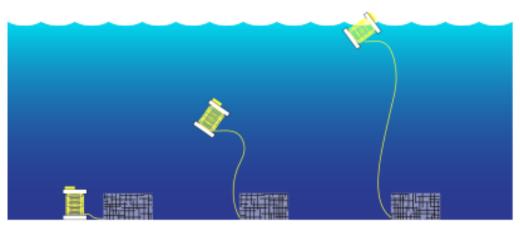


Figure 2. Flight transects, crab pot gear, and whales during the 8 December 2017 aerial survey.

Pelagic Data Systems Solar Logger

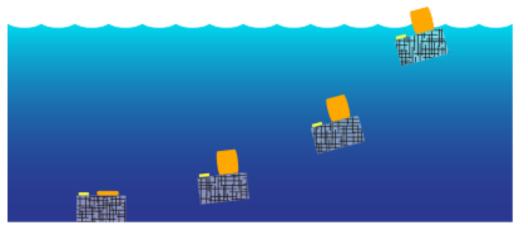
# Fishing without vertical lines: "Ropeless" (on call) Acoustic Release Buoys







Spool Trap



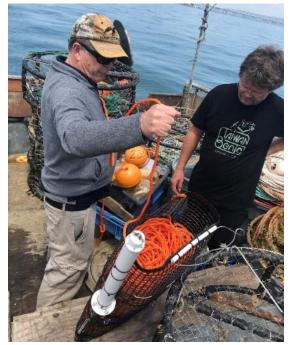
Lift bag (SMELTS)

Trap

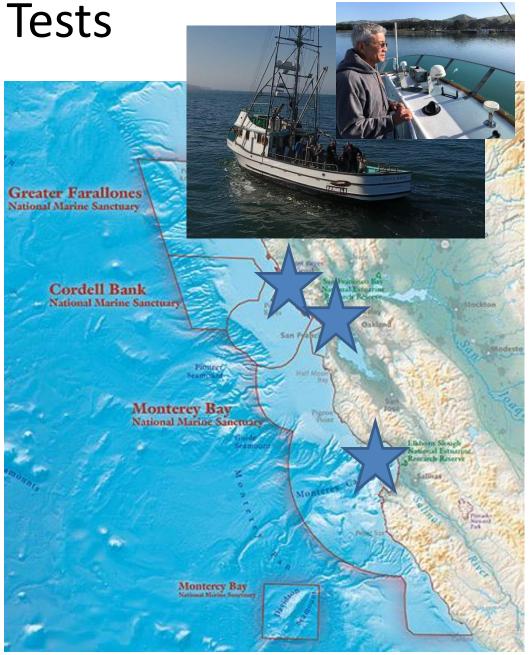
Dick Ogg (crab fisherman)

May 2018 Initial Tests

- Bodega Bay
- San Francisco Bay
- Monterey Bay



Marco Flagg (Desert Star) & John Mellor (crab fisherman)





John Fiotakis (Fiomarine) with Calder and Miles Deyerle (crab fishermen)





"The Fiobuoy has great potential for being of beneficial use to the Dungeness Crab Fishery and trap fisheries around the world under many circumstances, including mitigation of whale entanglements.

I believe more thorough testing of the technology should be the first step."

Calder Deyerle, F/V Sea Harvest, Moss Landing, CA

## Next Steps on Ropeless Gear

- Seek funding for operational pilot test program this season (~5 fishermen)
- Work with to OPC/CDFW and others to develop a longer term ropeless testing program



Marine Mammal Commission meeting on ropeless gear, Sausalito, CA

# Working Group Recommendation 4

"The Working Group recommends CDFW work with other fixed gear fisheries (both commercial and recreational) to address the complex issue of wildlife entanglements."

-October 2018 Recommendations Memo

