Solar Logger Pilot Project: Informing the Risk Assessment and Mitigation Program (RAMP) of the California Dungeness Crab Fishing Gear Working Group

Overview: This project will equip up to 40 commercial fishing vessels, and up to 20 whale watch boats or commercial passenger fishing vessels from Port San Luis/Avila to Crescent City, with solar loggers to collect and analyze fishing dynamics and whale concentration data to inform the Dungeness Crab Fishing Gear Working Group’s (Working Group’s) Risk Assessment and Mitigation Program (RAMP). Using the RAMP, the Working Group is committed to maintaining thriving whale populations and a thriving and profitable California commercial Dungeness crab fishery. Solar loggers are solar-powered vessel tracking information systems that record vessel positions every few seconds. This project will expand and strengthen an initial pilot project that was conducted during the 2017-2018 Dungeness crab fishing season, which included 12 Dungeness crab commercial and recreational fishing vessels. This iteration of the pilot project will strengthen the experimental design by equipping 3-4 vessels per port or port complex with a solar logger to expand the geographic coverage of data collection and utility of analysis within the RAMP.

After analyzing data from the solar loggers across vessels and ports/port complexes, heat maps of Dungeness crab fishing and whale watching activities, amongst other analytics and visualizations, can be created on a monthly basis to inform the relative risk of whale entanglements in accordance with the RAMP. Ultimately, this project will add additional resolution to the first round of the solar logger pilot project, will inform the fishing dynamics and whale concentration factors of the RAMP, and will help inform the state regarding the use of the solar logger tool to inform the RAMP long-term. This project prioritizes the importance of confidentiality of fishing and whale watching information. Please contact us for additional details on data confidentiality and data sharing agreements for this project.

Duration: December 2018 – October 31, 2020

Key Partners: Volunteer commercial fishermen and whale watch organizations, Pelagic Data Systems, Happywhale, California Whale Rescue, California Ocean Protection Council, California Department of Fish and Wildlife, California Dungeness Crab Fishing Gear Working Group, Pacific Coast Federation of Fishermen’s Associations

Outputs: Coming soon! To view and discuss example outputs, please contact us below.

Get Involved: Participate in this project by emailing Ryan Berger, Paige Berube, or Kathi George
How it Works

Solar-powered device, automatic data collection, simple installation

Application-specific wireless sensors

Uploads via cellular network

Cloud-based data analytics

Data visualization and alerts on a customizable dashboard

Solar Logger

7.4in x 3.2in x 1.1in

Screwed In Mount

Zip Tied Mount