

California Dungeness Crab Fishing Gear Working Group
Key Highlights, Considerations, and Next Steps — August 2018
August 15, 2018

Since September 2015, the California Dungeness Crab Fishing Gear Working Group (Working Group) has been taking steps to actively identify and be responsive to elevated risk of entanglements. The Working Group met on August 1-2, 2018, in Santa Rosa to continue evaluating the 2017-18 Risk Assessment and Mitigation Program (RAMP) Pilot and refining the RAMP's structure and function in advance of the 2018-19 fishing season. Key highlights of topics discussed and draft recommendations developed during the August meeting, together with next steps, are summarized below. A more detailed summary of key themes will be made available on the Working Group webpage in the coming weeks: <http://www.opc.ca.gov/whale-entanglement-working-group/>.

2017-18 RAMP Pilot Reflections: The Working Group continued to discuss lessons learned experienced during the RAMP pilot. The group reviewed a summary reflections document developed following the postseason risk assessment evaluation ([here](#)) and continued to identify areas where the RAMP structure and function could be further refined moving forward. Additionally, the group reviewed the the risk assessment framework's performance during pilot ([here](#)), including how planned and unplanned risk assessment evaluations informed the Working Group's efforts to reduce whale entanglement risk.

Continuing to Refine the RAMP's Structure and Function: Building on discussions during their April meeting ([here](#)), the Working Group continued to fine-tune the RAMP in advance of the 2018-19 fishing season.

RAMP Structure

- *Member Appointments and Alternates:* The Working Group confirmed the need for alternates and that all members and their alternates will be vetted and appointed by the Governor through a publicly notified, self-nomination and/or peer nomination process. The group agreed to have a staggered nomination/appointment process to maintain institutional knowledge within the Working Group. The Working Group suggested new members and alternates be required to participate in educational trainings to ensure all participants are starting from the same baseline of information.
- *Evaluation Team:* The Working Group continued to consider the composition of the Evaluation Team (ET), a subgroup of the Working Group that is responsive under circumstances of elevated risk. To help ensure the ET is nimble and can assemble quickly, the group suggested streamlining the minimum composition required for an ET to convene and removed the requirement for a recreational/CPFV participant. Additionally, the group agreed to remove a minimum number of agency representatives from the ET. Discussions to potentially reduce the number of representatives from non-profit organizations from 2 to 1 will be revisited during the Working Group's September meeting.

RAMP Function

- *Meeting Schedule & Day Rates:* The Working Group discussed a general annual RAMP meeting schedule to include four (4) planned risk assessment evaluation conference calls (pre, mid, late, and postseason) and one (1) in-person annual meeting (likely late summer early fall). Additional unplanned conference calls when the ET is convened are also anticipated. The group confirmed the need for an established day rate to help offset lost wages of fishermen, specifically, when attending RAMP meetings. Proposed meeting rates and available sources of funding to help with these costs require additional discussion.
- *Risk Assessment Framework (RAF):* The RAF continues to be seen as a useful tool to assess risk in a given time. However, the Working Group believes the RAF needs clearer connections across risk assessment factors (i.e., entanglements, forage/ocean conditions, whale concentrations, and fishing dynamics) and continued improvement of access to and evaluation of data streams to inform the factors. Data was well tracked using aerial and vessel surveys, whale watch data, landings information, a group text function between agencies and fishermen and entanglement reports. Aerial surveys and the fishermen's text thread were identified as valuable real-time information gathering tools during the pilot that should be

expanded and scaled in the RAMP moving forward. The Working Group will discuss options for refining the available data to inform the factors, especially the whale concentration and fishing dynamics factors, to better inform the RAF assessments and options for scoring factors in a way that better balances expert judgement with more objective and systematic criterias.

- *Fishing Dynamics:* The Working Group received a presentation by NOAA's Northwest Fisheries Science Center ([here](#)) that considered PacFIN and VMS data to try to understand how/if the California Dungeness crab fishery has changed over time. The group expressed interest to continue working with NOAA scientists and other outside experts to inform socioeconomic considerations in the RAMP.
- *Considering Other Marine Species:* A presentation on blue whale behavior and biology was also provided and the Working Group will consider potential updates to the RAMP to include blue whales, which will be piloted during the 2018-19 fishing season.

Communications: Communicating with the fleet throughout the season on the status of the RAMP, and RAF scoring specifically, is paramount to ensuring response from the fleet and success of the program. While broad communications attempts were successful, suggestions were made on tools that may be more effective in reaching the fleet and encouraging changes in fishing behavior as needed (e.g., real-time maps of whale concentrations, visuals, broader text thread, etc.). The Working Group highlighted that there was mixed responses during the pilot to the updates shared by the Working Group where some individuals moved their gear out of whale "hotspots" while others were resistant to changing their behavior and others weighed risk of entanglements with reward of fishing efforts, especially during the spring and summer months.

Informing CDFW's Rulemaking Process

Senate Bill 1309 ([here](#)), if passed, will formalize the RAMP and would require the California Department of Fish and Wildlife (CDFW) to develop Title 14 regulations by November 2020 that would be reflective the the RAMP details. The Working Group brainstormed on how to ensure the right level of detail was included a draft RAMP regulatory package to guide its implementation while also ensuring sufficient flexibility to support unforeseen issues and continued research and development of new tools. Scaling of regulations, communications to the fleet, response time of the fleet, rigor of data to inform decision-making, and the list of management measures that could be considered by the Director were all discussed. Codifying the use of verifiable tools (e.g., e-Tix, solar loggers, etc.) to inform the RAMP and the decision-making process may be considered in the rulemaking.

- *Process for Removing/Relaxing a Management Measure:* The Working Group highlighted that in addition to implementing management measures, the Director should also have the authority to relax those measures once the risk of entanglements has abated. The ET should provide guidance on how to relax the measures when they submit the recommendation to implement the measure(s), which may consider timing (e.g., how close to the end of the season, etc.), distance to other open/closed areas, port infrastructure (i.e., availability of hoists and gear storage space), access to gear (e.g. ocean conditions, boat size), etc.
- *Management Measures Toolbox (MMT):* The MMT was reviewed, discussed, and refined ([here](#)) to consider what could be addressed in CDFW's current rulemaking directive. Some tools were moved to a from the list until there was a better understanding of how they could be implemented and enforced. The group acknowledged the need to ensure the MMT could continue to be populated over time as new concepts and ideas arise and are tested (e.g. reducing the amount of gear in an area, time-specific fishing permits (e.g., spring permits), gear innovations, monetary incentives to not fish, etc.). The MMT guiding principles ([here](#)) were updated to be clear that the level of response will be proportional to the risk of entanglement. The group discussed including these principles in the rulemaking process.
 - **Gear Innovations:** The Working Group discussed the initial "hands on" testing of acoustic release/ropeless gear technology that was conducted in Spring 2018 involving a number of Working Group participants (see brief summary report [here](#)). The group discussed how the technology was not "shovel ready" as currently designed and requires additional discussions and

improvements specific to design, function, costs, enforcement, and impacts to whales and other marine life. There was some interest expressed to continue exploring this and other gear innovation ideas for consideration to include in the MMT, however it was agreed that these gear innovations would not be available to be implemented for the 2018-19 fishing season (at minimum).

Other Fixed-Gear Fisheries

During the 2017-18 RAMP pilot, 5 of the 26 confirmed entanglements that were identified as originating from the California Dungeness crab fishery, highlighted the need for state and federal agencies to also engage with other fixed-gear fisheries to more fully address the risk of whale entanglements in fishing gear. Recognizing the sensitivities associated with the issue, the Working Group will look to CDFW to initiate the conversations with the other fisheries and the Working Group could facilitate the effort by sharing information including the updated Best Practices Guide ([here](#)), the final surface gear regulations (CCR Title 14 Section 132.6), forage factor information, and Guiding Principles ([here](#)). The Working Group also welcomes the opportunity to be of service to the other fisheries' efforts.

Surface Gear Rulemaking

CDFW requested the Working Group's feedback on input received by the DCTF on the surface rulemaking package ([here](#)). The DCTF were in support of the proposed regulations in general, and made the suggested amendment to allow for an additional buoy to be included in the shallower depth range and include a clarification on how to measure the distance between the main and trailer buoys. The Working Group discussed these suggested amendments and the whale experts in the room could not, at this time, confirm whether the additional buoy would increase entanglement risk. While not considered a full Working Group recommendation, those participants at the meeting suggested that CDFW move forward with the DCTF's recommended amendment. It was acknowledged that the rule could be updated in the future if new data became available that the additional buoy in shallower depths was increasing the risk of entanglements.

Next Steps

The Working Group will reconvene in September 2018 to continue evaluating the 2017-18 RAMP Pilot and plan for the 2018-19 fishing season. Additional data collection and analysis are scheduled over the coming months. Working Group participants will discuss with their peers and colleagues the updated RAMP structure and functions, share outstanding considerations, and solicit feedback and ideas.