California Dungeness Crab Fishing Gear Working Group Key Highlights, Considerations, and Next Steps — April 2018 May 11, 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 April 23-24, 2018, in Santa Rosa to continue developing solutions to support thriving whale populations along the West Coast and a thriving and profitable Dungeness crab fishery. Key highlights of the Working Group's review and evaluation of the 2017-18 Risk Assessment and Mitigation Program (RAMP) Pilot, as well as next steps from the meeting are provided below. A more detailed summary of key themes discussed during the meeting is also publicly available on the Working Group webpage: http://www.opc.ca.gov/whale-entanglement-working-group/.

2017-18 RAMP Pilot Review to Date: In May 2017, the Working Group group started to develop a process to identify circumstances of elevated entanglement risk and develop pathways to address these situations. The Risk Assessment and Mitigation Program (RAMP) has been piloted during the 2017-18 fishing season to test the program's draft structure and function. Two risk assessments have been conducted by the agencies and Working Group: a preseason assessment was conducted in November/December at the start of the Central Management Area season (here) and a mid-season assessment was conducted in March (here). Additional conversations were convened between these meetings to continue tracking entanglement risk and highlights from these discussions were circulated to target audiences. Information gathering conducted during the pilot has helped inform the Working Group's understanding of the relationships between whale and fishing, and have included aerial surveys, an electronic reporting pilot project, and establishing an expanded network of fishermen and whale watch operators to share on-the-water observations. The Working Group also conducted a mock-drill of an elevated risk scenario to test out tools and identify process and design areas that could be improved.

2017-18 RAMP Pilot Evaluation to Date: During the April 2018 meeting, the Working Group discussed the core components of the RAMP's structure and function in an effort to further refine the program. Additional details about the RAMP's evaluation and evolution are available in the April 23-24, 2018 key themes summary.

- RAMP Structure: The Working Group further defined the RAMP groups—agencies, Working Group and advisors, and Evaluation Team—including roles, composition, and selection process. There was agreement that members of an Evaluation Team would be pooled from the Working Group with additional expertise brought into discussions as needed. The group suggested adding the United States Coast Guard to the agency group, and is continuing to consider the need for term-limits for Working Group participants, the role of alternates, establishing a day-rate for participants to support their involvement and reduce financial hardships of participation, and ensuring diverse fishing operations are represented on an Evaluation Team.
- RAMP Function: The Working Group discussed a number of core elements to the RAMP's function, including
 how the RAMP groups coordinate internally, the risk assessment framework and related factors, information
 gathering, management measure options, and external communications. An evaluation of the RAMP's
 operational costs will be conducted at a later date.
 - o *RAMP Groups:* The Working Group identified a system for how information can be exchanged between the three groups (agencies, Working Group, and Evaluation Team) to ensure transparency and appropriate checks and balances are in place. The group also developed a draft process that an Evaluation Team would take to develop and forward management recommendations to address the risk of whale entanglements to the Director.
 - Risk Assessment Framework (RAF): The RAF is viewed as a valuable tool to evaluate risk during the
 season and to inform the need for the agencies and Evaluation Team to mobilize, gather information,
 and explore management options (as needed). Information gathering efforts that feed into the
 evaluation of the RAF were also supported. The Working Group sees value in continuing to fine-tune the
 RAF factors (forage/ocean conditions, fishing dynamics, whale concentrations, and rate of

- entanglements), including considering how price negotiations and the rate of processing product can influence fishing dynamics, updating the whale concentration proxy, and continuing to build a RAF that considers the connections across the four factors rather than assessed individually.
- o Information Gathering: The pilot highlighted the need for the Working Group to engage with whale watch operations and work to to better integrate whale watch data into the RAMP and establish a more systematic collection of whale watch data to inform the RAF, including whale positional and depth information. Additionally, the group agreed there was a need to improve the understanding of the causes of entanglements and a need to encourage fishermen whose gear is involved in an entanglement to speak openly and honestly with the agencies about their gear set-up. While the pilot focused on humpback whale entanglements in the Dungeness crab fishery, the group acknowledged they would begin integrating other marine species, including blue and grey whales and leatherback turtles, into the RAF following the 2017-18 RAMP Pilot.
- Management Measures Toolbox (MMT): The Working Group continued to populate the MMT with additional management options for an Evaluation Team to consider under emergency circumstances (here). The group acknowledged the importance of making clearer connections between the RAF and the MMT help to ensure checks and balances are in place when an Evaluation Team is considering management options and/or when the Director is considering Evaluation Team recommendation(s). The group will continue to consider how to evaluate the measure for compliance, assess if/how compliance is contributing to continued risk levels, and what adjustments are needed to management measures. The MMT guiding principles (here) were updated to highlight the importance of fishermen's safety when considering management options.
- Communications: The Working Group shared information throughout the pilot via email and online with fishing leadership, members of the whale watch community, and decision makers to inform those audiences of their progress. Communications to date have included risk assessment evaluations, a January 2018 recommendations memo, support letters, and other interim communications. The Working Group supports increasing these types of communication efforts to uphold transparency and accuracy of available information. The group also discussed mechanisms to broaden their reach to include other target audiences and the media.

Best Fishing Practices, Commercial: During the April meeting, CDFW requested the Working Group's input on a draft rulemaking package that would restrict the amount of surface gear used at different depths. This rulemaking is based on the voluntary Best Practices Guides that have been in place during the 2016-17 and 2017-18 fishing seasons (here). The Working Group recommended the following draft language for CDFW consideration:

- Best practices (voluntary) are expected to be implemented as described in the Best Practices Guide.
- For each trap, the surface gear maximum (enforceable) would be defined as:
 - Depth of 35fm or less: max total of 4fm of line between main buoy and end trailer buoy. Max of one trailer. Option to include one "end marker" buoy less than 5" in diameter and max of 3ft in line length.
 - Depth greater than 35fm: max total of 6fm of line between main buoy and end trailer buoy. Max of two trailers. Option to include one "end marker" buoy less than 5" in diameter and max of 3ft in line length.

CDFW will consider the Working Group's recommendation and is expected to release a rulemaking package for public review in early June 2018.

Next Steps

The Working Group will reconvene in July and September 2018 to continue evaluating the 2017-18 RAMP Pilot and plan for the 2018-19 fishing season. Additional data collection and analysis and an postseason risk assessment 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.

All meeting materials and products developed by the Working Group are available at http://www.opc.ca.gov/whale-entanglement-working-group/. Please send direct communications to the Working Group, including ideas, questions, or concerns, to info@cawhalegroup.com.