

**Whale Entanglements and  
the Risk Assessment  
Mitigation Program (RAMP)  
Update**

**CDFW Update to the Dungeness Crab Task Force**

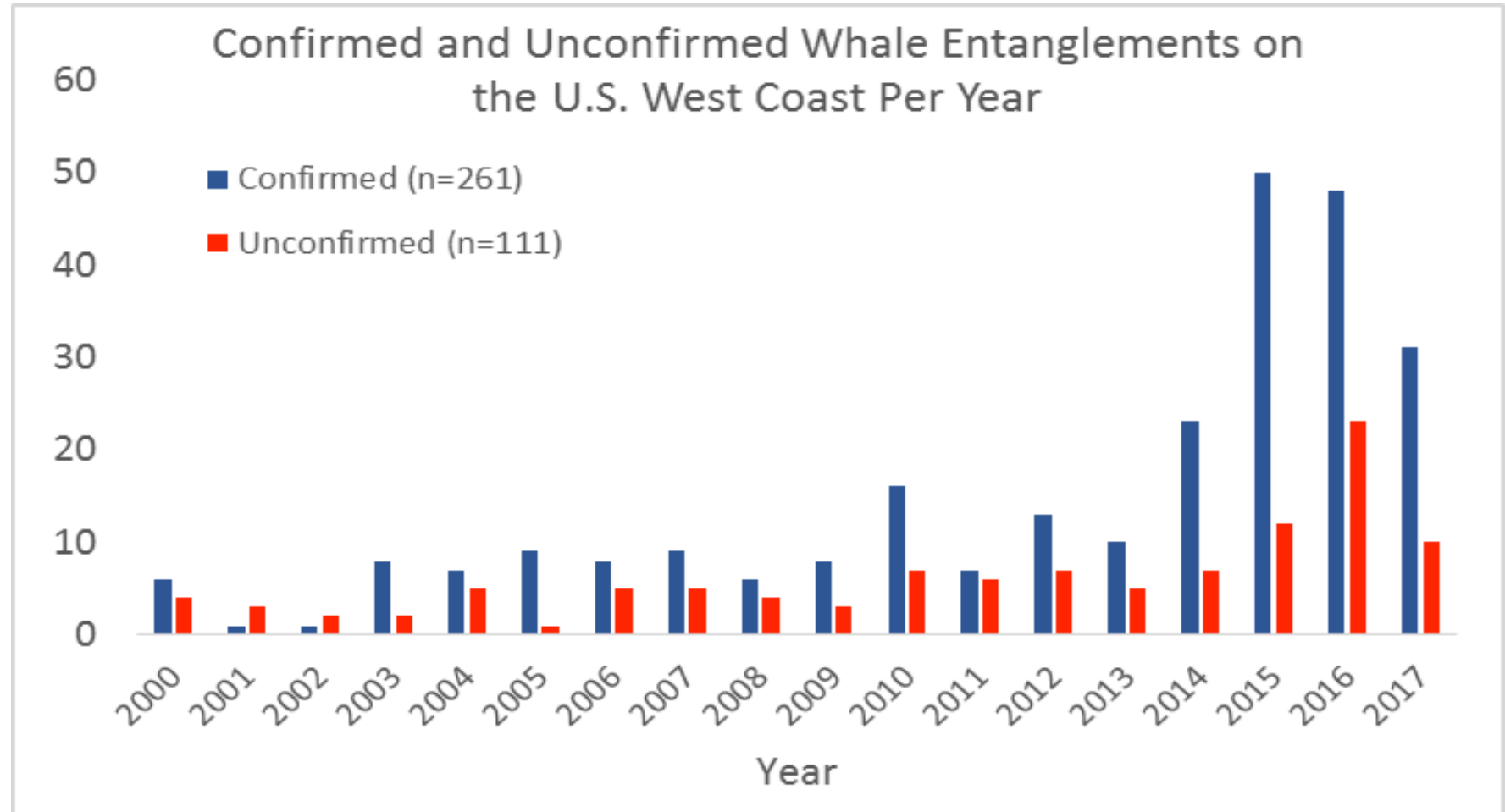
**June 5-6, 2018**

**Ukiah, CA**

# **WHALE ENTANGLEMENT UPDATE**

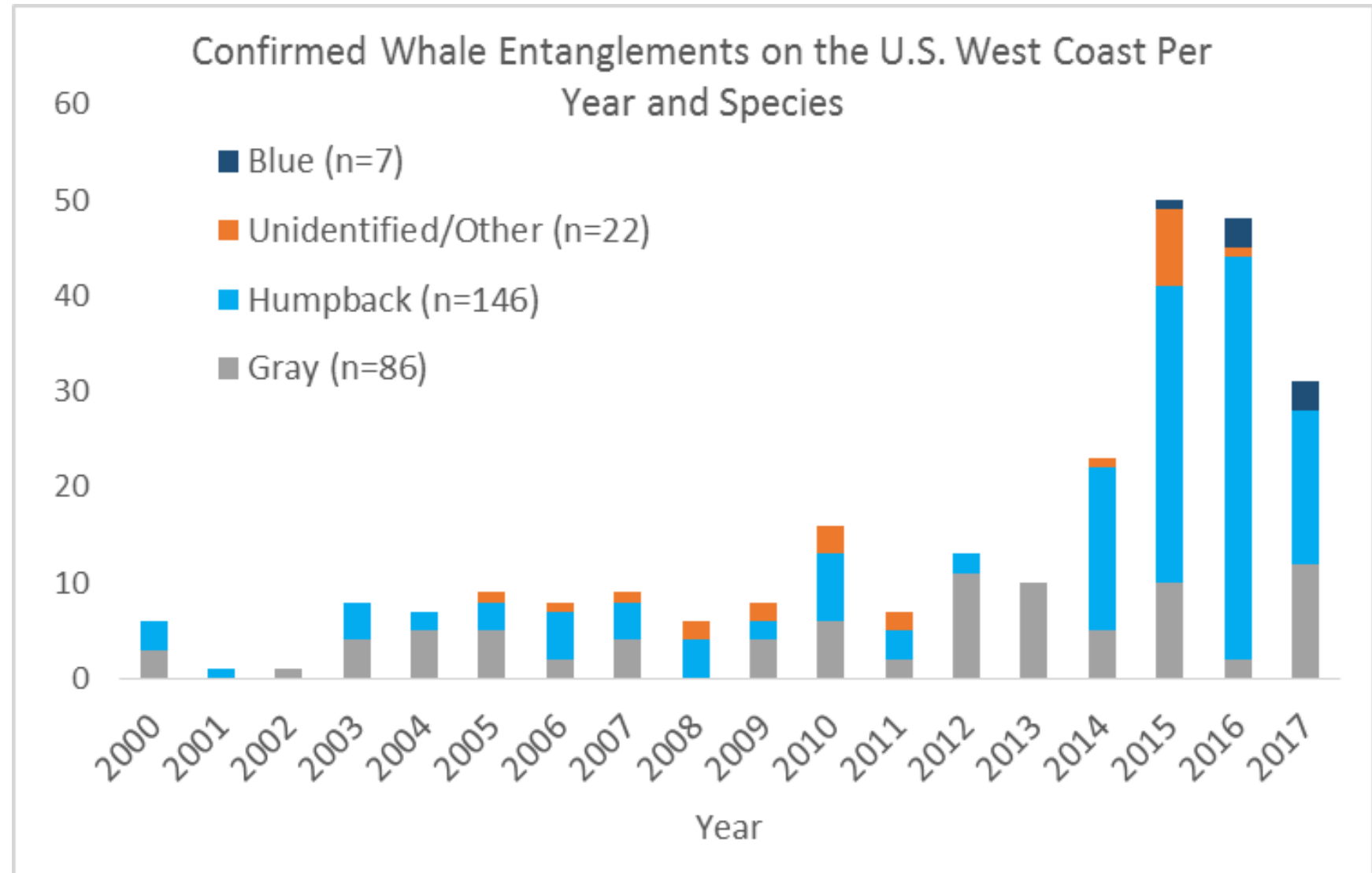
# 2017

- **41 reports**
  - 31 confirmed
  - 10 unconfirmed



# 2017

- **Of the 31 confirmed reports:**
  - 16 humpback
  - 12 gray
  - 3 blue



## 2017: confirmed entanglement, confirmed fishery

- 5 CA commercial Dcrab: 3 humpbacks, 1 gray and 1 blue whale
- 1 CA recreational Dcrab: 1 humpback
- 3 WA commercial Dcrab: 2 humpback, 1 gray
- 1 Sablefish/coonstripe shrimp: 1 humpback
- 4 gillnet: 4 gray whales

# 2018 summary

**\*\*considered preliminary, data through 5/29/2018\*\***

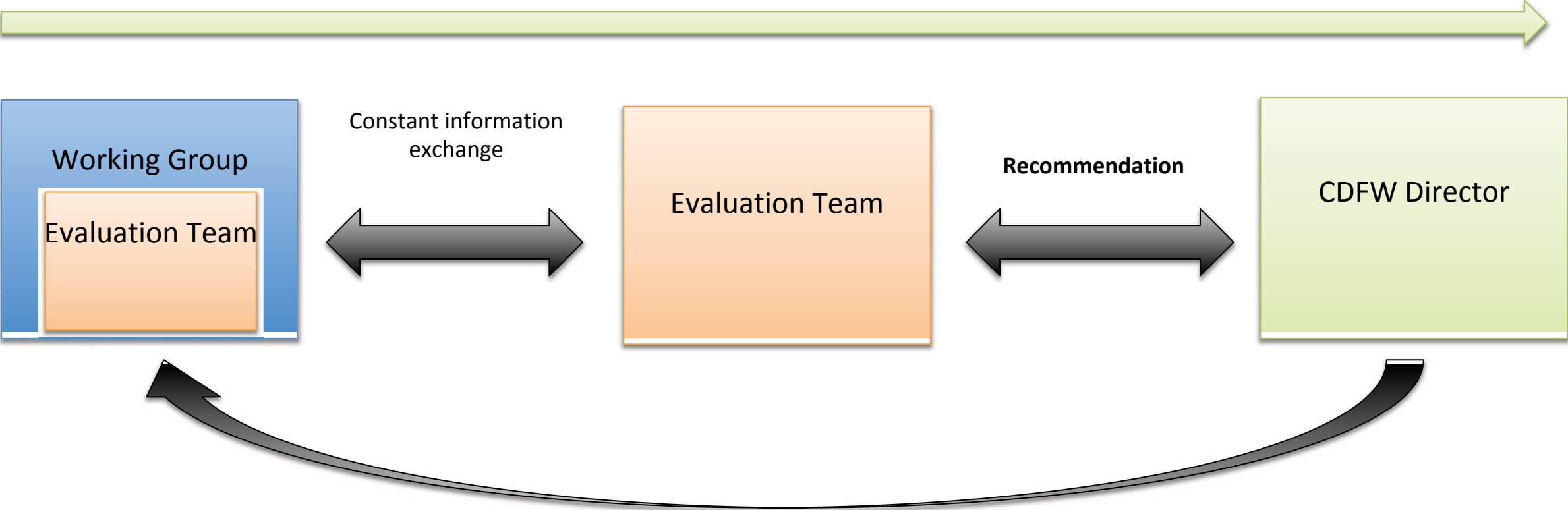
- **17 confirmed entangled whales, 21 total reports**
  - Gray whales: 10 confirmed, 12 total
  - Humpback whales: 6 confirmed, 7 total
  - Fin whale: 1 confirmed, 1 total
  - Unidentified: 0 confirmed, 1 total
- **Confirmed fisheries associated with entanglements: 8 reports**
  - Commercial Dungeness crab: 6 total
    - 3 WDFW (2 gray whales, 1 humpback whale)
    - 1 ODFW (1 gray whale)
    - 1 ODFW & CDFW (1 humpback whale)
    - 1 WA tribal (humpback whale)
  - Gillnet: 3 (gray whales)
- **Reporting location**
  - California: 11 confirmed reports, 15 total reports
  - Washington: 6 confirmed reports

# Dungeness Crab Fishing Gear Working Group

- Last in-person meeting in April 2018
  - Continue developing the Risk Assessment and Mitigation Program (RAMP)
- Shared with the DCTF October 2017
  - Risk Assessment Mitigation Program (RAMP)
  - Risk assessment framework (RAF) – list of factors and questions that contribute to our understanding of risk
  - Draft management measures toolbox (MMT) – voluntary and regulatory measures that could be considered to adaptively respond to entanglement risk

# RAMP Structure

Ongoing monitoring and information gathering by agencies





**Working Group & Agencies Review Factors That May Elevate Risk**  
(e.g., pre-season)

**FISHING DYNAMICS:** Season delays?  
Access to other fisheries? Location of crab?

**FORAGE:** Are there indications of anomalous ocean/forage conditions during the upcoming season?

**WHALES:** Are humpback whale concentrations moderate to high when the CA Dungeness crab fishery opens?

**ENTANGLEMENTS:** Are humpback whale entanglements at elevated levels this past year/spring?

If "no" to all questions, **ET is NOT convened** and "green" measures resume

If "yes" to any one question, **ET is convened**

Identify/request additional representation as needed  
Evaluate available data

Discuss management options to address risk

**Management Measures Toolbox (MMT)**

Low Risk

Moderate Risk

High Risk

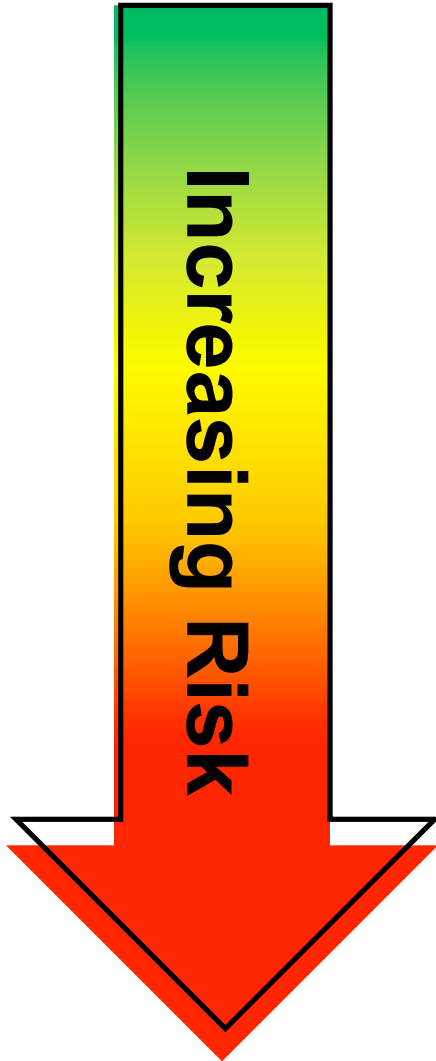
Agencies seek/provide additional information

Request information to verify/clarify situation

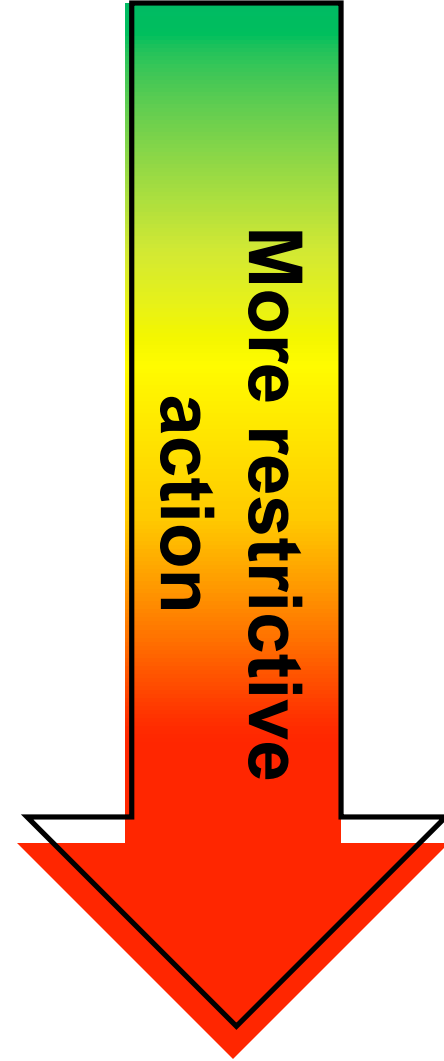
**Evaluation Team**  
Determine if management action is warranted  
Relay recommendation(s) to Director

**Agencies/Director**  
Implement ET fishery management recs  
Notify the fleet

# Risk Assessment Framework & Management Measures Toolbox



- Designed to detect possible increase in entanglement risk and management measures that could be deployed to reduce that risk





# California Dungeness Crab Fishing 2017-18 Best Practices Guide to Minimize Whale Entanglement Risk



## Support for Best Practices

National Marine Fisheries Service (NMFS) has confirmed significant increases in large whale entanglements over the last few years, and specifically in California Dungeness crab fishing gear. This situation threatens the stability of the fishery and coastal fishing communities. In response, a Working Group has developed this Best Practices Guide to highlight voluntary actions believed to be an important step towards reducing whale entanglements.

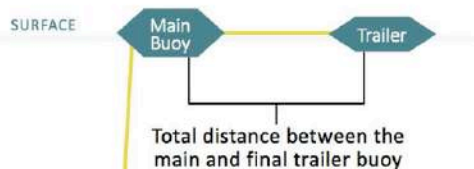


MMHSP Permit 18786 | Stephanie Marcos

## BEST PRACTICES

- **No excess lines should be floating at the surface.** Floating line should only be between the main buoy and trailer.
- **When changing set location across depths, adjust the length of trap lines** by adjusting shots (i.e., measured length of line) to maintain taut vertical lines.
- **Avoid setting gear in the vicinity of whales** whenever possible.
- **Maintain gear to ensure lines and buoys are in good working condition** and will not break under natural conditions causing gear to become lost or irretrievable. Lost gear contributes to marine debris and increases risk of whale entanglements.
- **All gear should be clearly marked** consistent with applicable regulation. All gear should be maintained so markings are clearly legible to facilitate correct identification of the origins of the gear involved in entanglements.
- **Use the minimum amount of scope** required to compensate for tides, currents and weather. Whales are more likely to become entangled with slack lines, which can potentially create a “floating snare”.
- **Remove all fishing gear by the end of the season** when gear is no longer allowed in the water.

## BUOY SET-UP BEST PRACTICES



RECREATIONAL	shortest as possible, max of 2 fathoms (12ft) at any depth
COMMERCIAL	
Inside 30 fathoms	shortest as possible, max of 3 fathoms (18ft)
30-50 fathoms	shortest as possible, max of 4 fathoms (24ft)
Outside 50 fathoms	shortest as possible, max of 5 fathoms (30ft)

Minimize # of buoys in set up—no more than 1 trailer buoy inside 30 fathoms

Keep line between trap and main buoy running vertical and taut



1 fathom= 6 feet

## Excess Slack Surface Line and Whale Entanglements

Ocean users, including members of the fishing community, are seeing a shift in fishing practices towards increased surface line and the use of multiple surface buoys. During a review of documented entanglements from recent years, fishermen, disentanglement responders, and others see a potential connection between slack surface line and the number of trailer buoys contributing to whale entanglements.

Efforts to evaluate the effectiveness of these voluntary recommendations in reducing the risk of whale entanglements will be made to inform future recommendations and/or management action. These best practices, together with investigating the co-occurrence (or overlap) between whale and fishing effort, are steps the Working Group is taking to address this challenging and complex issue.

For more information about the California Dungeness Crab Fishing Gear Working Group, including a fact sheet, background materials, meeting summaries, recommendations memos, and key resources like this Best Practices Guide, visit [opc.ca.gov/whale-entanglement-working-group](http://opc.ca.gov/whale-entanglement-working-group).

Taking these important, proactive steps to voluntarily reduce slack surface line will help to provide continued opportunities to harvest crab and maintain the fleet's access to the resource.



### Reporting Entangled Whales

Report entangled whales IMMEDIATELY to the NMFS whale entanglement response hotline at 1-877-SOS-WHAlE (1-877-767-9425) or hail the U.S. Coast Guard on Channel 16. If possible, stand by for responders.

### Photographing Entangled Whales (>100 yards away)

**WHALE:** side view of dorsal fin (or hump); flukes (especially if underside is raised); head; any part of the body where gear may be present.

**ENTANGLEMENT:** buoy(s); tags; lines on the body; trailing lines (including distance from whale); netting (if present); other gear if present.

### Respond Promptly if Contacted by NMFS or CDFW

If you are contacted by NMFS, California Department of Fish and Wildlife (CDFW), or any other government agency regarding a whale entangled in your gear please respond and provide as much information as possible about your fishing gear and practices. Gaining a better understanding of where, when, and how entanglements are occurring is essential in working to prevent entanglements in the future.

If you have suggestions for reducing entanglements in fishing gear, contact Dan Lawson, NMFS Protected Resources Division, at [Dan.Lawson@noaa.gov](mailto:Dan.Lawson@noaa.gov) or 562-980-3209.

The Best Practices Guide was developed by the California Dungeness Crab Fishing Gear Working Group.



2015-05-06 in NOAA MMHSP Permit 18786